1. PRODUCT AND COMPANY IDENTIFICATION

Common name NO. 1 THINNER
Product code F041-0001
Trade name THINNER CLEAR
Product Class PAINT THINNER
Manufacturer Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone 800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure Eye contact, Inhalation, Skin contact.
Acute effects
   Eyes Moderately irritating to the eyes.
   Skin Irritating to skin.
   Inhalation Irritating to respiratory system.
   Ingestion May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects
NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Interactive effects Use of alcoholic beverages may enhance toxic effects.
Potential environmental effects See Section 12 for additional Ecological Information
Target Organ Effects Central nervous system, Eyes, Kidney, Respiratory system, Skin

3. COMPOSITION/INFORMATION ON INGREDIENTS
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINERAL SPIRITS (STODDARD SOLVENT)</td>
<td>8052-41-3</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

Skin contact: Wash off immediately with soap and plenty of water.

Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties: Combustible material.

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

Hazardous decomposition products: Oxides of carbon, hydrocarbons.

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters
Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other information: Not applicable

7. HANDLING AND STORAGE

Handling
Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWA EV</th>
<th>Ontario TWA EV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINERAL SPIRITS (STODDARD SOLVENT)</td>
<td>: 100 ppm TWA</td>
<td>: 100 ppm TWA; 525 mg/m³ TWA; 500 ppm TWA; 2900 mg/m³ TWA</td>
<td>TWA: 100 ppm TWA; 525 mg/m³ TWA</td>
<td>TWA: 525 mg/m³ TWA (140°C Flash aliphatic solvent)</td>
<td>: 100 ppm TWA; 523 mg/m³ TWA; 200 ppm STEL; 1050 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures

Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

- **Skin protection**: Lightweight protective clothing, Apron, Impervious gloves
- **Eye/face protection**: Safety glasses with side-shields
- **Respiratory protection**: Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

- **General hygiene considerations**: Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>38°C / 100.0°F</td>
</tr>
<tr>
<td>Boiling range</td>
<td>154 - 202°C / 310.0 - 395.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>.77630 g/cm³</td>
</tr>
<tr>
<td>Density</td>
<td>6.45999 lbs/gal</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC)</td>
<td>6.460 lbs/gal</td>
</tr>
<tr>
<td>by weight</td>
<td>100.0000 %</td>
</tr>
<tr>
<td>Volatile by volume</td>
<td>100.0000 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Stability</th>
<th>Conditions to avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>Stable.</td>
</tr>
<tr>
<td>Incompatible products</td>
<td>Strong oxidizing agents.</td>
</tr>
</tbody>
</table>

| Possibility of hazardous reactions | None under normal processing |

11. TOXICOLOGICAL INFORMATION

Acute toxicity
11. TOXICOLOGICAL INFORMATION

Component Information

Irritation
No information available

Corrosivity
No information available

Sensitization
No information available

Chronic toxicity

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity
No information available

Reproductive effects
No information available

Developmental effects
No information available

Teratogenicity
No information available

Target Organ Effects
Central nervous system, Eyes, Kidney, Respiratory system, Skin.

Endocrine Disruptor Information
No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name
UN1263, PAINT RELATED MATERIAL, 3, PG II, ERG 128

15. REGULATORY INFORMATION

International Inventories

TSCA
Complies

DSL/NDSL
Complies

EINECS/ELINCS
Complies

CHINA
Complies

ENCS
Does not Comply

KECL
Complies

PICCS
Complies

AICS
Complies

United States of America Federal Regulations

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Revision Date 30-Mar-2011
SARA 313

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: no
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

Other international regulations

Canada
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B3  Combustible liquid
D2B  Toxic materials

Legend
NPRI - National Pollutant Release Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
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<tbody>
<tr>
<td>MINERAL SPIRITS (STODDARD SOLVENT)</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

Revision Date 30-Mar-2011
Revision Note No information available

HMIS (Hazardous Material Information System)

<table>
<thead>
<tr>
<th>Component</th>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINERAL SPIRITS (STODDARD SOLVENT)</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name          NO. 2 THINNER
Product code         F041-0002
Trade name           THINNER CLEAR
Product Class        PAINT THINNER
Manufacturer         Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone  800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

FLAMMABLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

Principle Routes of Exposure   Eye contact, Inhalation, Skin contact.

Acute effects

- **Eyes**: Moderately irritating to the eyes.
- **Skin**: Irritating to skin.
- **Inhalation**: Irritating to respiratory system.
- **Ingestion**: May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions   Central nervous system, Gastrointestinal tract, Kidney disorders, Liver disorders, Skin disorders, Respiratory disorders.

Interactive effects

Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects

See Section 12 for additional Ecological Information

Target Organ Effects

Blood, Central nervous system, Gastrointestinal tract, Eyes, Kidney, Liver, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>60 - 100</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>10 - 30</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Flammable.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information Not applicable

7. HANDLING AND STORAGE

Handling Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>: 100 ppm TWA : 150 ppm STEL</td>
<td>: 100 ppm TWA; 435 mg/m³ TWA; 150 ppm STEL; 655 mg/m³ STEL</td>
<td>TWA: 100 ppm TWAEV; 434 mg/m³ TWAEV STEL: 150 ppm STEV; 651 mg/m³ STEV</td>
<td>TWA: 100 ppm TWA STEL: 150 ppm STEL</td>
<td>: 100 ppm TWA; 435 mg/m³ TWA : 150 ppm STEL; 655 mg/m³ STEL</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>: 20 ppm TWA</td>
<td>: 100 ppm TWA; 435 mg/m³ TWA : 125 ppm STEL; 545 mg/m³ STEL</td>
<td>TWA: 100 ppm TWAEV; 434 mg/m³ TWAEV STEL: 125 ppm STEV; 543 mg/m³ STEV</td>
<td>TWA: 100 ppm TWA STEL: 125 ppm STEL</td>
<td>: 100 ppm TWA; 435 mg/m³ TWA : 125 ppm STEL; 545 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Skin protection
Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection
If splashes are likely to occur, wear Goggles.

Respiratory protection
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.
Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>26°C / 78.0°F</td>
</tr>
<tr>
<td>Boiling range</td>
<td>135 - 142°C / 275.0 - 288.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>0.8 - 1.2 kPa @ 20°C</td>
</tr>
<tr>
<td>Vapor density</td>
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</tr>
<tr>
<td>Specific Gravity</td>
<td>.87100 g/cm³</td>
</tr>
<tr>
<td>Density</td>
<td>7.24800 lbs/gal</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>7.248 lbs/gal</td>
</tr>
<tr>
<td>Volatile by weight</td>
<td>100.0000 %</td>
</tr>
<tr>
<td>Volatile by volume</td>
<td>100.0000 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY
10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Chemical stability</th>
<th>Stable.</th>
<th>Conditions to avoid</th>
<th>Heat, flames and sparks.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompatible products</td>
<td>Strong oxidizing agents.</td>
<td>Possibility of hazardous reactions</td>
<td>None under normal processing</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>4300 mg/kg (Rat)</td>
<td>&gt;1700 mg/kg (Rabbit)</td>
<td>5000 ppm (Rat) 4 h 47635 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>3500 mg/kg (Rat)</td>
<td>15354 mg/kg (Rabbit)</td>
<td>17.2 mg/L (Rat) 4 h</td>
</tr>
</tbody>
</table>

Irritation No information available
Corrosivity No information available
Sensitization No information available

Chronic toxicity

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL BENZENE</td>
<td>A3</td>
<td>Group 2B</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Mutagenicity No information available
Reproductive effects No information available
Developmental effects No information available
Teratogenicity No information available
Target Organ Effects Blood, Central nervous system, Gastrointestinal tract, Eyes, Kidney, Liver, Respiratory system, Skin.
Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity


<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>LC50 13.4 mg/L Pimephales promelas 96 h LC50 2.661-4.093 mg/L Oncorhynchus mykiss 96 h LC50 13.5-17.3 mg/L Oncorhynchus mykiss 96 h LC50 13.1-16.5 mg/L Lepomis macrochirus 96 h LC50 23.53-29.97 mg/L Pimephales promelas 96 h LC50 780 mg/L Cyprinus carpio 96 h LC50 30.26-40.75 mg/L</td>
<td>EC50 = 0.0084 mg/L 24 h</td>
<td>EC50 3.82 mg/L 48 h LC50 0.6 mg/L 48 h</td>
<td></td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>EC50 4.6 mg/L 72 h EC50 &gt;438 mg/L 96 h EC50 2.6 -11.3 mg/L 72 h EC50 1.7 - 7.6 mg/L 96 h</td>
<td>LC50 11.0-18.0 mg/L Oncorhynchus mykiss 96 h LC50 4.2 mg/L Oncorhynchus mykiss 96 h LC50 7.55-11 mg/L Pimephales promelas 96 h LC50 32 mg/L Lepomis macrochirus 96 h LC50 59.1-15.6 mg/L Pimephales promelas 96 h LC50 9.6 mg/L</td>
<td>EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h</td>
<td>EC50 1.8 - 2.4 mg/L 48 h</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated packaging**
Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

**DOT**
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

**Proper shipping name**
UN1307,XYLENES,3,PGIII,ERG 130

15. REGULATORY INFORMATION

**International Inventories**

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
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<tr>
<td>AICS</td>
<td>Complies</td>
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</table>

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
Component
XYLENE
ETHYL BENZENE
United States of America Federal Regulations

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>60 - 100</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>10 - 30</td>
<td>0.1 % de minimis concentration</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: yes
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>100 lb RQ</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
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<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

CERCLA

United States of America State Regulations

California Prop. 65

This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification

B2 Flammable liquid
D2A Very toxic materials

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
</tbody>
</table>
16. OTHER INFORMATION

Revision Date 28-Jun-2011
Revision Note No information available

HMIS (Hazardous Material Information System) Health 2 Flammability 3 Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name                  NO. 3 THINNER
Product code                 F041-0003
Trade name                   THINNER CLEAR
Product Class                PAINT THINNER
Manufacturer                 Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone          800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL OR FATAL IF SWALLOWED.
HARMFUL IF INHALED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure Eye contact, Inhalation, Skin contact.

Acute effects

- Eyes Moderately irritating to the eyes.
- Skin Irritating to skin.
- Inhalation Irritating to respiratory system.
- Ingestion May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.


Interactive effects Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects See Section 12 for additional Ecological Information

Target Organ Effects Blood, Central nervous system, Gastrointestinal tract, Eyes, Kidney, Liver, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td>64742-95-6</td>
<td>30 - 60</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>95-63-6</td>
<td>30 - 60</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>108-67-8</td>
<td>5 - 10</td>
</tr>
<tr>
<td>DIETHYLBENZENE</td>
<td>25340-17-4</td>
<td>1 - 5</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>1 - 5</td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>98-82-8</td>
<td>1 - 5</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Combustible material.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information Not applicable
7. HANDLING AND STORAGE

Handling
Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage
Close container after each use. Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>TWA: 25 ppm</td>
<td>TWA: 25 ppm TWA: 123 mg/m³</td>
<td>TWA: 25 ppm TWA: 123 mg/m³</td>
<td>TWA: 125 mg/m³ TWA: 25 ppm STEL: 170 mg/m³ STEL: 35 ppm</td>
<td></td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>TWA: 25 ppm</td>
<td>TWA: 25 ppm TWA: 123 mg/m³</td>
<td>TWA: 25 ppm TWA: 123 mg/m³</td>
<td>TWA: 125 mg/m³ TWA: 25 ppm STEL: 170 mg/m³ STEL: 35 ppm</td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td>100 ppm TWA : 150 ppm STEL</td>
<td>TWA: 100 ppm TWAEV: 434 mg/m³ TWAEV STEL: 150 ppm STEV; 651 mg/m³ STEV</td>
<td>TWA: 100 ppm TWA STEL: 150 ppm STEL</td>
<td>100 ppm TWA; 435 mg/m³ TWA : 150 ppm STEL; 655 mg/m³ STEL</td>
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</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>50 ppm TWA</td>
<td>TWA: 50 ppm TWAEV: 246 mg/m³ TWAEV</td>
<td>TWA: 50 ppm TWA</td>
<td>50 ppm TWA</td>
<td>50 ppm TWA</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>20 ppm TWA</td>
<td>TWA: 100 ppm TWA; 435 mg/m³ TWA : 125 ppm STEL; 545 mg/m³ STEL</td>
<td>TWA: 100 ppm TWA; 434 mg/m³ TWAEV STEL: 125 ppm STEV; 543 mg/m³ STEV</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

| Skin protection          | Lightweight protective clothing, Apron, Impervious gloves |
| Eye/face protection      | Safety glasses with side-shields |
| Respiratory protection   | Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point 42°C / 108.0°F
Boiling range 138 - 153°C / 280.0 - 307.0°F
Upper explosion limit No information available
Lower explosion limit No information available
Evaporation rate No information available
Vapor pressure 0.2 - 1.3 kPa @ 20°C
Vapor density No information available
Specific Gravity .87373 g/cm³
9. PHYSICAL AND CHEMICAL PROPERTIES

Density  
7.27077 lbs/gal

Volatile organic compounds (VOC) content  
7.271 lbs/gal

Volatile by weight  
100.0000 %

Volatile by volume  
100.0000 %

10. STABILITY AND REACTIVITY

Chemical stability  
Stable.

Conditions to avoid  
Heat, flames and sparks.

Incompatible products  

Possibility of hazardous reactions  
None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal (Rabbit)</th>
<th>LC50 Inhalation (Rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td>8400 mg/kg</td>
<td>&gt;2000 mg/kg</td>
<td>&gt;5.2 mg/L</td>
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<tr>
<td></td>
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<td>4 h 3400 ppm</td>
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<tr>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>3400 mg/kg</td>
<td>&gt;3160 mg/kg</td>
<td>18 g/m³</td>
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<tr>
<td></td>
<td></td>
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<td>(Rabbit) 4 h</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>5000 mg/kg</td>
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<td>24 g/m³</td>
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<tr>
<td></td>
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<td>(Rabbit) 4 h</td>
</tr>
<tr>
<td>XYLENE</td>
<td>4300 mg/kg</td>
<td>&gt;1700 mg/kg</td>
<td>5000 ppm</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(Rat) 4 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>1400 mg/kg</td>
<td>&gt;3160 mg/kg</td>
<td>39000 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Rat) 4 h</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>3500 mg/kg</td>
<td>15354 mg/kg</td>
<td>17.2 mg/L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Rat) 4 h</td>
</tr>
</tbody>
</table>

Irritation  
No information available

Corrosivity  
No information available

Sensitization  
No information available

Chronic toxicity

Carcinogenicity  
The table below indicates whether each agency has listed any ingredient as a carcinogen

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL BENZENE</td>
<td>A3</td>
<td>Group 2B</td>
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<td>X</td>
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</tr>
</tbody>
</table>

Mutagenicity  
No information available

Reproductive effects  
No information available

Developmental effects  
No information available

Teratogenicity  
No information available

Target Organ Effects  
Blood, Central nervous system, Gastrointestinal tract, Eyes, Kidney, Liver, Respiratory system, Skin

Endocrine Disruptor Information  
No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Possibility of hazardous reactions  
None under normal processing
<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td>LC50 9.22 mg/L</td>
<td>Oncorhynchus mykiss 96 h</td>
<td>EC50 6.14 mg/L 48 h</td>
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</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>LC50 7.72 mg/L</td>
<td>Pimephales promelas 96 h LC50 7.19-8.28 mg/L Pimephales promelas 96 h</td>
<td>EC50 6.14 mg/L 48 h</td>
<td></td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>LC50 3.48 mg/L</td>
<td>Pimephales promelas 96 h LC50 7.19-8.28 mg/L Pimephales promelas 96 h</td>
<td>EC50 50 mg/L 24 h</td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td>LC50 13.4 mg/L</td>
<td>Pimephales promelas 96 h LC50 2.661-4.093 mg/L Oncorhynchus mykiss 96 h LC50 13.5-17.3 mg/L Oncorhynchus mykiss 96 h LC50 19 mg/L Lepomis macrochirus 96 h LC50 7.711-9.591 mg/L Lepomis macrochirus 96 h LC50 23.53-29.97 mg/L Pimephales promelas 96 h LC50 780 mg/L Cyprinus carpio 96 h LC50&gt;780 mg/L Cyprinus carpio 96 h LC50 30.26-40.75 mg/L Megalobrama sp 96 h</td>
<td>EC50 0.0084 mg/L 24 h</td>
<td>EC50 3.82 mg/L 48 h LC50 0.6 mg/L 48 h</td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>EC50 2.6 mg/L 72 h</td>
<td>LC50 6.04-6.61 mg/L Pimephales promelas 96 h LC50 4.9 mg/L Oncorhynchus mykiss 96 h LC50 2.7 mg/L Oncorhynchus mykiss 96 h LC50 5.1 mg/L Poecilia reticulata 96 h</td>
<td>EC50 0.89 mg/L 5 min EC50 = 1.10 mg/L 15 min EC50 = 1.48 mg/L 30 min EC50 = 172 mg/L 24 h</td>
<td>EC50 0.6 mg/L 48 h EC50 7.9 - 14.1 mg/L 48 h</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>EC50 4.6 mg/L 72 h EC50 &gt;438 mg/L 96 h EC50 2.6 -11.3 mg/L 72 h EC50 1.7 - 7.6 mg/L 96 h</td>
<td>LC50 11.0-18.0 mg/L Oncorhynchus mykiss 96 h LC50 4.2 mg/L Oncorhynchus mykiss 96 h LC50 7.55-11 mg/L Pimephales promelas 96 h LC50 32 mg/L Lepomis macrochirus 96 h LC50 9.1-15.6 mg/L Pimephales promelas 96 h LC50 9.6 mg/L Poecilia reticulata 96 h</td>
<td>EC50 9.68 mg/L 30 min EC50 = 96 mg/L 24 h</td>
<td>EC50 1.8 - 2.4 mg/L 48 h</td>
</tr>
</tbody>
</table>

### 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**

Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated packaging**

Empty containers should be taken for local recycling, recovery or waste disposal.

### 14. TRANSPORT INFORMATION

**DOT**

Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

**Proper shipping name**

PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

### 15. REGULATORY INFORMATION
15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
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</tr>
<tr>
<td>DSL/NDSL</td>
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</tr>
<tr>
<td>EINECS/ELINCS</td>
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</tr>
<tr>
<td>CHINA</td>
<td></td>
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<tr>
<td>ENCS</td>
<td></td>
</tr>
<tr>
<td>KECL</td>
<td></td>
</tr>
<tr>
<td>PICCS</td>
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<tr>
<td>AICS</td>
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</tbody>
</table>

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

Component
XYLENE
CUMENE (SKIN)
ETHYL BENZENE

United States of America Federal Regulations

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>95-63-6</td>
<td>30 - 60</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>1 - 5</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>98-82-8</td>
<td>1 - 5</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>0.1 - 1</td>
<td>0.1 % de minimis concentration</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: yes
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
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<tr>
<td>XYLENE</td>
<td>100 lb RQ</td>
<td>X</td>
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<tr>
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</table>

CERCLA

United States of America State Regulations

California Prop. 65

This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
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<tbody>
<tr>
<td>CUMENE (SKIN)</td>
<td>98-82-8</td>
<td>Carcinogen</td>
</tr>
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State Right-to-Know

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<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>1,3,5-TRIMETHYLBENZENE</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>DIETHYLBENZENE</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification

B3  Combustible liquid
D2A Very toxic materials

Legend

NPRI - National Pollutant Release Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td>Part 5 Substance</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
<tr>
<td>XYLENE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>Part 1, Group 1 Substance</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>Part 1, Group 1 Substance</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

Revision Date 28-Jun-2011

Revision Note No information available

HMIS (Hazardous Material Information System)

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
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<tbody>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

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End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name NO. 4 THINNER
Product code F041-0004
Trade name THINNER CLEAR
Product Class PAINT THINNER
Manufacturer Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone 800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

FLAMMABLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

Principle Routes of Exposure Eye contact, Inhalation, Skin contact.

Acute effects

<table>
<thead>
<tr>
<th>Eyes</th>
<th>Moderately irritating to the eyes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>Irritating to skin.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Irritating to respiratory system.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.</td>
</tr>
</tbody>
</table>

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions Central nervous system, Gastrointestinal tract, Kidney disorders, Liver disorders, Skin disorders, Respiratory disorders.

Interactive effects Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects See Section 12 for additional Ecological Information

Target Organ Effects Blood, Central nervous system, Gastrointestinal tract, Eyes, Kidney, Liver, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>108-10-1</td>
<td>30 - 60</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>30 - 60</td>
</tr>
<tr>
<td>N-BUTYL ALCOHOL</td>
<td>71-36-3</td>
<td>10 - 30</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>5 - 10</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Flammable.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information Not applicable
7. HANDLING AND STORAGE

Handling
Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage
Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>: 20 ppm TWA; 75 ppm STEL</td>
<td>: 50 ppm TWA; 205 mg/m³ TWA; : 75 ppm STEL; 300 mg/m³ STEL</td>
<td>TWA: 50 ppm TWAEV; 205 mg/m³ TWA; STEL: 75 ppm STEV; 307 mg/m³ STEL</td>
<td>TWA: 50 ppm TWA STEL: 75 ppm STEL</td>
<td>: 50 ppm TWA; 205 mg/m³ TWA: 75 ppm STEL; 307 mg/m³ STEL</td>
</tr>
<tr>
<td>XYLENE</td>
<td>: 100 ppm TWA: 150 ppm STEL</td>
<td>: 100 ppm TWA: 435 mg/m³ TWA: 150 ppm STEL; 655 mg/m³ STEL</td>
<td>TWA: 100 ppm TWAEV: 434 mg/m³ TWA; STEL: 150 ppm STEV; 651 mg/m³ STEV</td>
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<td>: 100 ppm TWA: 435 mg/m³ TWA: 150 ppm STEL; 655 mg/m³ STEL</td>
</tr>
<tr>
<td>N-BUTYL ALCOHOL</td>
<td>: 20 ppm TWA</td>
<td>Skin: 50 ppm Ceiling: 150 mg/m³ Ceiling: 100 ppm TWA; 300 mg/m³ TWA</td>
<td>Ceiling: 50 ppm Ceiling: 152 mg/m³ Ceiling Skin TWA</td>
<td>TWA: 20 ppm TWA</td>
<td>: 50 ppm Peak: 150 mg/m³ Peak</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>: 100 ppm TWA: 125 ppm STEL</td>
<td>: 100 ppm TWA: 435 mg/m³ TWA: 125 ppm STEL; 545 mg/m³ STEL</td>
<td>TWA: 100 ppm TWAEV: 434 mg/m³ TWA; STEL: 125 ppm STEV; 543 mg/m³ STEV</td>
<td>TWA: 100 ppm TWA STEL: 125 ppm STEL</td>
<td>: 100 ppm TWA: 435 mg/m³ TWA: 125 ppm STEL; 545 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment
- **Skin protection**: Lightweight protective clothing, Apron, Impervious gloves
- **Eye/face protection**: If splashes are likely to occur, wear Goggles.
- **Respiratory protection**: Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.
- **General hygiene considerations**: Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>18°C / 64.0°F</td>
</tr>
<tr>
<td>Boiling range</td>
<td>114 - 142°C / 237.0 - 288.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES

Specific Gravity 0.83124 g/cm³
Density 6.91720 lbs/gal
Volatile organic compounds (VOC) content 6.917 lbs/gal
Volatile by weight 100.0000 %
Volatile by volume 100.0000 %

10. STABILITY AND REACTIVITY

Chemical stability Stable.
Conditions to avoid Heat, flames and sparks.
Incompatible products Strong oxidizing agents.
Possibility of hazardous reactions None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral ( Rat )</th>
<th>LD50 Dermal ( Rabbit )</th>
<th>LC50 Inhalation ( Rat ) 4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>2080 mg/kg</td>
<td>16000 mg/kg</td>
<td>8.2 mg/L 4 h</td>
</tr>
<tr>
<td>XYLENE</td>
<td>4300 mg/kg</td>
<td>1700 mg/kg</td>
<td>5000 ppm 4 h</td>
</tr>
<tr>
<td>N-BUTYL ALCOHOL</td>
<td>790 mg/kg</td>
<td>3400 mg/kg</td>
<td>8000 ppm 4 h</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>3500 mg/kg</td>
<td>15354 mg/kg</td>
<td>17.2 mg/L 4 h</td>
</tr>
</tbody>
</table>

Irritation No information available
Corrosivity No information available
Sensitization No information available

Chronic toxicity

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>A3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>A3</td>
<td>Group 2B</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Mutagenicity No information available
Reproductive effects No information available
Developmental effects No information available
Teratogenicity No information available
Target Organ Effects Blood, Central nervous system, Gastrointestinal tract, Eyes, Kidney, Liver, Respiratory system, Skin.
Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity
<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>EC50 = 400 mg/L 96h</td>
<td>LC50 496-514 mg/L Pimephales promelas 96 h</td>
<td>EC50 = 79.6 mg/L 5 min</td>
<td>EC50 = 170 mg/L 48 h</td>
</tr>
<tr>
<td>XYLENE</td>
<td></td>
<td>LC50= 13.4 mg/L Pimephales promelas 96 h LC50 2.661-4.093 mg/L Oncorhynchus mykiss 96 h LC50 13.5-17.3 mg/L Oncorhynchus mykiss 96 h LC50 13.1-16.5 mg/L Lepomis macrochirus 96 h LC50= 19 mg/L Lepomis macrochirus 96 h LC50 7.711-9.591 mg/L Lepomis macrochirus 96 h LC50 23.53-29.97 mg/L Pimephales promelas 96 h LC50= 780 mg/L Cyprinus carpio 96 h LC50&gt; 780 mg/L Cyprinus carpio 96 h LC50 30.26-40.75 mg/L Poecilia reticulata 96 h</td>
<td>EC50 = 0.0084 mg/L 24 h</td>
<td>EC50 = 3.82 mg/L 48 h LC50 = 0.6 mg/L 48 h</td>
</tr>
<tr>
<td>N-BUTYL ALCOHOL</td>
<td>EC50 &gt; 500 mg/L 96 h EC50 &gt; 500 mg/L 72 h</td>
<td>LC50 100000-500000 µg/L Lepomis macrochirus 96 h LC50 1730-1910 mg/L Pimephales promelas 96 h LC50= 1740 mg/L Pimephales promelas 96 h LC50= 1910000 µg/L Pimephales promelas 96 h</td>
<td>EC50 = 2041.4 mg/L 5 min EC50 = 2186 mg/L 30 min EC50 = 4400 mg/L 17 h EC50 = 3980 mg/L 24 h</td>
<td>EC50 1897 - 2072 mg/L 48 h EC50 = 1983 mg/L 48 h</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>EC50 = 4.6 mg/L 72 h EC50 &gt; 438 mg/L 96 h EC50 2.6-11.3 mg/L 72 h EC50 1.7 - 7.6 mg/L 96 h</td>
<td>LC50 11.0-18.0 mg/L Oncorhynchus mykiss 96 h LC50= 4.2 mg/L Oncorhynchus mykiss 96 h LC50 7.55-11 mg/L Pimephales promelas 96 h LC50= 32 mg/L Lepomis macrochirus 96 h LC50 9.1-15.6 mg/L Pimephales promelas 96 h LC50= 9.6 mg/L Poecilia reticulata 96 h</td>
<td>EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h</td>
<td>EC50 1.8 - 2.4 mg/L 48 h</td>
</tr>
</tbody>
</table>

### 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated packaging**
Empty containers should be taken for local recycling, recovery or waste disposal.

### 14. TRANSPORT INFORMATION

**DOT**
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

**Proper shipping name**
UN1263, PAINT RELATED MATERIAL, 3, PGII, ERG 128

### 15. REGULATORY INFORMATION

**International Inventories**

<table>
<thead>
<tr>
<th>TSCA</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
</tbody>
</table>
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

Component
METHYL ISOBUTYL KETONE
XYLENE
ETHYL BENZENE

United States of America Federal Regulations

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>108-10-1</td>
<td>30 - 60</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>30 - 60</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>N-BUTYL ALCOHOL</td>
<td>71-36-3</td>
<td>10 - 30</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>5 - 10</td>
<td>0.1 % de minimis concentration</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Categorization

Chronic Health Hazard yes
Acute Health Hazard yes
Fire Hazard yes
Sudden Release of Pressure Hazard no
Reactive Hazard no

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>100 lb RQ</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>1000 lb RQ</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>XYLENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>N-BUTYL ALCOHOL</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**WHMIS Classification**
B2 Flammable liquid
D2A Very toxic materials

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
<tr>
<td>XYLENE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
<tr>
<td>N-BUTYL ALCOHOL</td>
<td>Part 1, Group 1 Substance</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>Part 1, Group 1 Substance</td>
</tr>
</tbody>
</table>

**Legend**
NPRI - National Pollutant Release Inventory

### 16. OTHER INFORMATION

**Revision Date**
07-Jun-2011

**Revision Note**
No information available

**HMIS (Hazardous Material Information System)**
Health 2 Flammability 3 Reactivity 1

**Disclaimer**
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

**End of MSDS**
1. PRODUCT AND COMPANY IDENTIFICATION

Common name  NO. 9 THINNER
Product code  F041-0009
Trade name  THINNER CLEAR
Product Class  PAINT THINNER
Manufacturer  Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone  800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

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MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.  
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

Principle Routes of Exposure  Eye contact, Inhalation, Skin contact.

Acute effects

Eyes  Moderately irritating to the eyes.
Skin  Irritating to skin.
Inhalation  Irritating to respiratory system.
Ingestion  May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions  Central nervous system, Gastrointestinal tract, Kidney disorders, Liver disorders, Skin disorders, Respiratory disorders.

Interactive effects  Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects  See Section 12 for additional Ecological Information

Target Organ Effects  Blood, Central nervous system, Gastrointestinal tract, Eyes, Kidney, Liver, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

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<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>30 - 60</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>78-93-3</td>
<td>30 - 60</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>10 - 30</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties: Flammable.
Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products: Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical: Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters: Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up: If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information: Not applicable

7. HANDLING AND STORAGE

Handling: Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
**Storage**

Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
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</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>100 ppm TWA : 150 ppm STEL</td>
<td>100 ppm TWA : 435 mg/m³ TWA : 150 ppm STEL; 655 mg/m³ STEL</td>
<td>TWA: 100 ppm TWA; 434 mg/m³ TWA; 150 ppm STEL; 651 mg/m³ STEL</td>
<td>TWA: 100 ppm TWA STEL: 150 ppm STEL</td>
<td>100 ppm TWA: 435 mg/m³ TWA : 150 ppm STEL; 655 mg/m³ STEL</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>200 ppm TWA : 300 ppm STEL</td>
<td>200 ppm TWA : 590 mg/m³ TWA : 300 ppm STEL; 885 mg/m³ STEL</td>
<td>TWA: 50 ppm TWA; 150 mg/m³ TWA; 300 ppm STEL; 655 mg/m³ STEL</td>
<td>TWA: 200 ppm TWA STEL: 300 ppm STEL</td>
<td>200 ppm TWA: 590 mg/m³ TWA : 300 ppm STEL; 885 mg/m³ STEL</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100 ppm TWA : 125 ppm STEL</td>
<td>100 ppm TWA : 435 mg/m³ TWA : 125 ppm STEL; 545 mg/m³ STEL</td>
<td>TWA: 100 ppm TWA; 434 mg/m³ TWA; 125 ppm STEL; 543 mg/m³ STEL</td>
<td>TWA: 100 ppm TWA STEL: 125 ppm STEL</td>
<td>100 ppm TWA: 435 mg/m³ TWA : 125 ppm STEL; 545 mg/m³ STEL</td>
</tr>
</tbody>
</table>

**Engineering measures**

Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment**

- **Skin protection**
  - Lightweight protective clothing, Apron, Impervious gloves
  - If splashes are likely to occur, wear Goggles.

- **Eye/face protection**
  - **Use only with adequate ventilation.** Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

- **Respiratory protection**
  - Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

- **Respiratory protection**
  - Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

- **General hygiene considerations**
  - Handle in accordance with good industrial hygiene and safety practice.
  - Avoid breathing dust created by cutting, sanding, or grinding.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Flash point**: 9°C / 49.0°F
- **Boiling range**: 78 - 142°C / 172.0 - 288.0°F
- **Upper explosion limit**: No information available
- **Lower explosion limit**: No information available
- **Evaporation rate**: No information available
- **Vapor pressure**: No information available
- **Vapor density**: No information available
- **Specific Gravity**: 0.84945 g/cm³
- **Density**: 7.06869 lbs/gal
- **Volatile organic compounds (VOC) content**: 7.069 lbs/gal
- **Volatile by weight**: 100.0000 %
- **Volatile by volume**: 100.0000 %
10. STABILITY AND REACTIVITY

- Chemical stability: Stable.
- Conditions to avoid: Heat, flames and sparks.
- Incompatible products: Strong oxidizing agents.
- Possibility of hazardous reactions: None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal (Rabbit)</th>
<th>LC50 Inhalation (Rat) 4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>4300 mg/kg</td>
<td>1700 mg/kg</td>
<td>5000 ppm</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>2737 mg/kg</td>
<td>6480 mg/kg</td>
<td></td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>3500 mg/kg</td>
<td>15354 mg/kg</td>
<td>17.2 mg/L</td>
</tr>
</tbody>
</table>

Irritation: No information available
Corrosivity: No information available
Sensitization: No information available

Chronic toxicity

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL BENZENE</td>
<td>A3</td>
<td>Group 2B</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

- Mutagenicity: No information available
- Reproductive effects: No information available
- Developmental effects: No information available
- Teratogenicity: No information available
- Target Organ Effects: Blood, Central nervous system, Gastrointestinal tract, Eyes, Kidney, Liver, Respiratory system, Skin.
- Endocrine Disruptor Information: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

-
<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td></td>
<td></td>
<td>EC50 = 0.0084 mg/L 24 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>METHYL ETHYL KETONE</td>
<td></td>
<td></td>
<td>EC50 = 3426 mg/L 5 min</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EC50 = 3403 mg/L 30 min</td>
<td></td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>EC50 = 4.6 mg/L 72 h</td>
<td>EC50 &gt; 438 mg/L 96 h EC50  2.6 - 11.3 mg/L 72 h EC50  1.7 - 7.6 mg/L 96 h</td>
<td>EC50 = 9.68 mg/L 30 min</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EC50 = 9.6 mg/L 24 h</td>
<td></td>
</tr>
</tbody>
</table>

### 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated packaging**
Empty containers should be taken for local recycling, recovery or waste disposal

### 14. TRANSPORT INFORMATION

**DOT**
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

**Proper shipping name**
UN1263, PAINT RELATED MATERIAL, 3, PGII, ERG 128

### 15. REGULATORY INFORMATION

**International Inventories**
- TSCA: Complies
- DSL/NDSL: Complies
- EINECS/ELINCS: Complies
- CHINA: Complies
- ENCS: Complies
- KECL: Complies
- PICCS: Complies
- AICS: Complies
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

**Component**
- XYLENE
- ETHYL BENZENE

### United States of America Federal Regulations

#### SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>30 - 60</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>78-93-3</td>
<td>30 - 60</td>
<td>1.0</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>10 - 30</td>
<td>0.1 % de minimis concentration</td>
</tr>
</tbody>
</table>

#### SARA 311/312 Hazardous Categorization

- **Chronic Health Hazard**: yes
- **Acute Health Hazard**: yes
- **Fire Hazard**: yes
- **Sudden Release of Pressure Hazard**: no
- **Reactive Hazard**: no

| Component                  | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|----------------------------|-----------------------------|------------------------|----------------------------|
| XYLENE                     | 100 lb RQ                   | X                      |                            |
| ETHYL BENZENE              | 1000 lb RQ                  | X                      | X                          |

### CERCLA

#### United States of America State Regulations

#### California Prop. 65

This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

### State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

### Other international regulations

#### Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**WHMIS Classification**
- B2 Flammable liquid
- D2A Very toxic materials
Component | NPRI
---|---
XYLENE | Part 1, Group 1 Substance; Part 5 Substance
METHYL ETHYL KETONE | Part 1, Group 1 Substance; Part 5 Substance
ETHYL BENZENE | Part 1, Group 1 Substance

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 02-May-2011
Revision Note No information available
HMIS (Hazardous Material Information System) Health 2 Flammability 3 Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Common name</th>
<th>NO. 12 THINNER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>F041-0012</td>
</tr>
<tr>
<td>Trade name</td>
<td>THINNER CLEAR</td>
</tr>
<tr>
<td>Product Class</td>
<td>PAINT THINNER</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372</td>
</tr>
<tr>
<td>Emergency telephone</td>
<td>800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400</td>
</tr>
</tbody>
</table>

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

FLAMMABLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

Principle Routes of Exposure
Eye contact, Inhalation, Skin contact.

Acute effects

- **Eyes**: Moderately irritating to the eyes.
- **Skin**: Irritating to skin.
- **Inhalation**: Irritating to respiratory system.
- **Ingestion**: May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.


Interactive effects

- Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects

- See Section 12 for additional Ecological Information

Target Organ Effects

- Central nervous system, Eyes, Kidney, Liver, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>108-88-3</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

Skin contact: Wash off immediately with soap and plenty of water.

Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties: Flammable.

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

Hazardous decomposition products: Oxides of carbon, hydrocarbons.

Specific hazards arising from the chemical: Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters: Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other information: Not applicable

7. HANDLING AND STORAGE

Handling: Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>: 20 ppm TWA</td>
<td>: 100 ppm TWA; 375 mg/m³ TWA; 150 ppm STEL; 560 mg/m³ STEL; 200 ppm TWA; 300 ppm Ceiling</td>
<td>TWA: 50 ppm TWAEV; 188 mg/m³ TWAEV Skin</td>
<td>TWA: 20 ppm TWA</td>
<td>: 50 ppm TWA; 188 mg/m³ TWA</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

- **Skin protection**: Lightweight protective clothing, Apron, Impervious gloves
- **Eye/face protection**: If splashes are likely to occur, wear Goggles.
- **Respiratory protection**: *Use only with adequate ventilation.* Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer’s directions for respirator use.

General hygiene considerations
Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

- **Flash point**: 6°C / 42.0°F
- **Method**: Pensky Martens - Closed Cup
- **Boiling range**: 110 - 112°C / 230.0 - 233.0°F
- **Upper explosion limit**: No information available
- **Lower explosion limit**: No information available
- **Evaporation rate**: No information available
- **Vapor pressure**: No information available
- **Vapor density**: No information available
- **Specific Gravity**: 0.87124 g/cm³
- **Density**: 7.25000 lbs/gal
- **Volatile organic compounds (VOC) content**: 7.250 lbs/gal
- **Volatile by weight**: 100.0000 %
- **Volatile by volume**: 100.0000 %

10. STABILITY AND REACTIVITY

- **Chemical stability**: Stable.
- **Conditions to avoid**: Heat, flames and sparks.
- **Incompatible products**: Strong oxidizing agents.
- **Possibility of hazardous reactions**: None under normal processing.
### 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

**Component Information**

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>636 mg/kg (Rat)</td>
<td>8390 mg/kg (Rabbit)</td>
<td>12.5 mg/L (Rat) 4 h</td>
</tr>
</tbody>
</table>

**Irritation**
No information available

**Corrosivity**
No information available

**Sensitization**
No information available

**Chronic toxicity**

**Carcinogenicity**
The table below indicates whether each agency has listed any ingredient as a carcinogen

**Mutagenicity**
No information available

**Reproductive effects**
No information available

**Developmental effects**
No information available

**Teratogenicity**
No information available

**Target Organ Effects**
Central nervous system, Eyes, Kidney, Liver, Respiratory system, Skin.

**Endocrine Disruptor Information**
No information available

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

### 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated packaging**
Empty containers should be taken for local recycling, recovery or waste disposal
### 14. TRANSPORT INFORMATION

**DOT**  
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

**Proper shipping name**  
UN1294, TOLUENE, 3, PGII, ERG 130

### 15. REGULATORY INFORMATION

**International Inventories**

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Compiles</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Compiles</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Compiles</td>
</tr>
<tr>
<td>CHINA</td>
<td>Compiles</td>
</tr>
<tr>
<td>ENCS</td>
<td>Compiles</td>
</tr>
<tr>
<td>KECL</td>
<td>Compiles</td>
</tr>
<tr>
<td>PICCS</td>
<td>Compiles</td>
</tr>
<tr>
<td>AICS</td>
<td>Compiles</td>
</tr>
</tbody>
</table>

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

**Component**  
TOLUENE

**United States of America Federal Regulations**

**SARA 313**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>108-88-3</td>
<td>60 - 100</td>
<td>1.0 % de minimis concentration</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazardous Categorization**

- Chronic Health Hazard: no
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>1000 lb RQ</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**CERCLA**

**United States of America State Regulations**

**California Prop. 65**

This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>108-88-3</td>
<td>Developmental Female Reproductive</td>
</tr>
</tbody>
</table>
State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification

B2  Flammable liquid
D2A Very toxic materials

Legend

NPRI - National Pollutant Release Inventory

```
F041-0012 - THINNER CLEAR
Revision Date 30-Mar-2011

```

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

Revision Date 30-Mar-2011

Revision Note No information available

HMIS (Hazardous Material Information System)

Health 2  Flammability 3  Reactivity 1

Disclaimer

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name  
NO. 15 THINNER

Product code  
F041-0015

Trade name  
THINNER CLEAR

Product Class  
PAINT THINNER

Manufacturer  
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372

Emergency telephone  
800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

FLAMMABLE LIQUID AND VAPOR.
HARMFUL OR FATAL IF SWALLOWED.
HARMFUL IF INHALED.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
POISON, MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.

Potential health effects

Principle Routes of Exposure  
Eye contact, Inhalation, Skin contact.

Acute effects

Eyes  
Moderately irritating to the eyes.

Skin  
Irritating to skin.

Inhalation  
Irritating to respiratory system.

Ingestion  
May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions  

Interactive effects  
Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects  
See Section 12 for additional Ecological Information

Target Organ Effects  
Blood, Central nervous system, Gastrointestinal tract, Eyes, Liver, Reproductive System, Respiratory system, Skin, Kidney
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>64-17-5</td>
<td>60 - 100</td>
</tr>
<tr>
<td>METHANOL (SKIN)</td>
<td>67-56-1</td>
<td>1 - 5</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>141-78-6</td>
<td>1 - 5</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>108-10-1</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Flammable.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information Not applicable
7. HANDLING AND STORAGE

Handling
Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage
Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>1000 ppm STEL</td>
<td>1000 ppm TWA; 1900 mg/m³ TWA</td>
<td>TWA: 1000 ppm TWAEV; 1880 mg/m³ TWAEV</td>
<td>STEL: 1000 ppm STEL</td>
<td>1000 ppm TWA; 1900 mg/m³ TWA</td>
</tr>
<tr>
<td>METHANOL (SKIN)</td>
<td>200 ppm TWA Skin; 250 ppm STEL</td>
<td>200 ppm TWA; 260 mg/m³ TWA : 250 ppm STEL; 325 mg/m³ STEL Skin</td>
<td>TWA: 200 ppm TWAEV; 262 mg/m³ TWAEV STEL; 250 ppm STEV; 328 mg/m³ STEV Skin</td>
<td>TWA: 200 ppm TWA STEL: 250 ppm STEL Skin</td>
<td>TWA: 200 ppm TWA; 260 mg/m³ TWA : 250 ppm STEL; 310 mg/m³ STEL</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>400 ppm TWA</td>
<td>400 ppm TWA; 1400 mg/m³ TWA</td>
<td>TWA: 400 ppm TWAEV; 1440 mg/m³ TWAEV</td>
<td>TWA: 400 ppm TWA</td>
<td>TWA: 400 ppm TWA; 1400 mg/m³ TWA</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>20 ppm TWA : 75 ppm STEL</td>
<td>205 mg/m³ TWA; 75 ppm STEL; 300 mg/m³ STEL : 100 ppm TWA; 410 mg/m³ TWA</td>
<td>TWA: 50 ppm TWAEV; 205 mg/m³ TWAEV STEL; 75 ppm STEV; 307 mg/m³ STEV</td>
<td>TWA: 50 ppm TWA STEL: 75 ppm STEL</td>
<td>50 ppm TWA; 205 mg/m³ TWA : 75 ppm STEL; 307 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection
Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection
If splashes are likely to occur, wear Goggles.

Respiratory protection
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer’s directions for respirator use.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point
7°C / 45.0°F

Boiling range
No information available

Upper explosion limit
No information available

Lower explosion limit
No information available

Evaporation rate
No information available

Vapor pressure
No information available

Vapor density
No information available

Specific Gravity
.79377 g/cm³

Density
6.60533 lbs/gal
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>6.605 lbs/gal</td>
</tr>
<tr>
<td>Volatile by weight</td>
<td>100.0000 %</td>
</tr>
<tr>
<td>Volatile by volume</td>
<td>100.0000 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>Stable.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Heat, flames and sparks.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>None under normal processing</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (mg/kg)</th>
<th>LD50 Dermal (mg/kg)</th>
<th>LC50 Inhalation (mg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>7060</td>
<td>124.7</td>
<td>124.7</td>
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<tr>
<td>METHANOL (SKIN)</td>
<td>5628</td>
<td>15800</td>
<td>64000</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>5620</td>
<td>20</td>
<td>18000</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>2080</td>
<td>16000</td>
<td>8.2</td>
</tr>
</tbody>
</table>

Irritation                  | No information available |
Corrosivity                 | No information available |
Sensitization               | No information available |

Chronic toxicity

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Mexico</th>
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</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>A3</td>
<td>Group 1</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>A3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mutagenicity                | No information available |
Reproductive effects        | No information available |
Developmental effects       | No information available |
Teratogenicity              | No information available |
Target Organ Effects        | Blood, Central nervous system, Gastrointestinal tract, Eyes, Liver, Reproductive System, Respiratory system, Skin, Kidney. |
Endocrine Disruptor Information | No information available |

12. ECOLOGICAL INFORMATION

Ecotoxicity


<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td></td>
<td>Oncorhynchus mykiss 96 h</td>
<td>LC50 12.0 - 16.0 mL/L</td>
<td>EC50 = 35470 mg/L 5 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pimephales promelas 96 h</td>
<td>LC50 13400 - 15100 mg/L</td>
<td>EC50 = 34634 mg/L 30 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lepomis macrochirus 96 h</td>
<td>LC50 18 - 20 mL/L</td>
<td>LC50 9268 - 14221 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oncorhynchus mykiss 96 h</td>
<td>LC50 19500 - 20700 mg/L</td>
<td>EC50 = 10800 mg/L 24 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pimephales promelas 96 h</td>
<td>LC50 28200 mg/L</td>
<td>EC50 = 2 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pimephales promelas 96 h</td>
<td>LC50&gt; 100 mg/L</td>
<td></td>
</tr>
<tr>
<td>METHANOL (SKIN)</td>
<td></td>
<td>Oncorhynchus mykiss 96 h</td>
<td>LC50 13500 - 17600 mg/L</td>
<td>EC50 = 43000 mg/L 5 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lepomis macrochirus 96 h</td>
<td>LC50 18 - 20 mL/L</td>
<td>EC50 = 40000 mg/L 15 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oncorhynchus mykiss 96 h</td>
<td>LC50 19500 - 20700 mg/L</td>
<td>EC50 = 39000 mg/L 25 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pimephales promelas 96 h</td>
<td>LC50= 28200 mg/L</td>
<td></td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>EC50 = 3300 mg/L 48 h</td>
<td>Oncorhynchus mykiss 96 h</td>
<td>LC50 220-250 mg/L</td>
<td>EC50 = 1180 mg/L 5 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pimephales promelas 96 h</td>
<td>LC50 325-500 mg/L</td>
<td>EC50 = 5870 mg/L 15 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oncorhynchus mykiss 96 h</td>
<td>LC50= 484 mg/L</td>
<td>EC50 = 7400 mg/L 2 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pimephales promelas 96 h</td>
<td>LC50= 484 mg/L</td>
<td></td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>EC50 = 400 mg/L 96 h</td>
<td>Oncorhynchus mykiss 96 h</td>
<td>LC50 496-514 mg/L</td>
<td>EC50 = 79.6 mg/L 5 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pimephales promelas 96 h</td>
<td>LC50= 484 mg/L</td>
<td>EC50 = 170 mg/L 48 h</td>
</tr>
</tbody>
</table>

### 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated packaging**
Empty containers should be taken for local recycling, recovery or waste disposal.

### 14. TRANSPORT INFORMATION

**DOT**
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

**Proper shipping name**
UN1170,ETHYL ALCOHOL,3,PGII, ERG 127

### 15. REGULATORY INFORMATION

#### International Inventories

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

**Component**
METHANOL (SKIN)
METHYL ISOBUTYL KETONE

#### United States of America Federal Regulations
SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHANOL (SKIN)</td>
<td>67-56-1</td>
<td>1 - 5</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>108-10-1</td>
<td>1 - 5</td>
<td>1.0 % de minimis concentration</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Categorization

- **Chronic Health Hazard**: yes
- **Acute Health Hazard**: yes
- **Fire Hazard**: yes
- **Sudden Release of Pressure Hazard**: no
- **Reactive Hazard**: no

CERCLA

United States of America State Regulations

**California Prop. 65**

This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>64-17-5</td>
<td>Carcinogen Developmental</td>
</tr>
</tbody>
</table>

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>METHANOL (SKIN)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

**Canada**

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**WHMIS Classification**

- B2 Flammable liquid
- D2A Very toxic materials

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>Part 5 Substance</td>
</tr>
<tr>
<td>METHANOL (SKIN)</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>Part 5 Substance</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
</tbody>
</table>
### 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>07-Jun-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision Note</td>
<td>No information available</td>
</tr>
<tr>
<td>HMIS (Hazardous Material Information System)</td>
<td>Health 2</td>
</tr>
</tbody>
</table>

**Disclaimer**

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name
NO. 18 THINNER
Product code
F041-0018
Trade name
THINNER CLEAR
Product Class
PAINT THINNER
Manufacturer
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone
800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL OR FATAL IF SWALLOWED.
HARMFUL IF INHALED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure
Eye contact, Inhalation, Skin contact.

Acute effects

Eyes
Moderately irritating to the eyes.
Skin
Irritating to skin.
Inhalation
Irritating to respiratory system.
Ingestion
May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects
NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions
No information available

Interactive effects
No information available

Potential environmental effects
See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
</table>

WARNING!
COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL OR FATAL IF SWALLOWED.
HARMFUL IF INHALED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>108-65-6</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes.

**Skin contact:** Wash off immediately with soap and plenty of water.

**Ingestion:** If swallowed, do not induce vomiting. Get medical attention immediately.

**Inhalation:** Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

**Flammable properties** Combustible material.

**Suitable extinguishing media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

**Hazardous decomposition products** Oxides of carbon, hydrocarbons.

**Specific hazards arising from the chemical** Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

**Protective equipment and precautions for firefighters** Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Other information** Not applicable

7. HANDLING AND STORAGE

**Handling** Close container after each use. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

**Storage** Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWA: 50 ppm TWA; 270 mg/m³ TWA</td>
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<tr>
<td>MONOMETHYL ETHER ACETATE</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection
Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection
Safety glasses with side-shields

Respiratory protection
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point
47°C / 116.0°F

Boiling range
139 - 141°C / 283.0 - 285.0°F

Upper explosion limit
No information available

Lower explosion limit
No information available

Evaporation rate
No information available

Vapor pressure
No information available

Vapor density
No information available

Specific Gravity
.96497 g/cm³

Density
8.03000 lbs/gal

Volatile organic compounds (VOC) content
8.030 lbs/gal

Volatile by weight
100.0000 %

Volatile by volume
100.0000 %

10. STABILITY AND REACTIVITY

Chemical stability
Stable.

Conditions to avoid
Heat, flames and sparks. Reacts with air to form peroxides.

Incompatible products
Strong oxidizing agents.

Possibility of hazardous reactions
None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
</table>
11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Component</th>
<th>irritation</th>
<th>Corrosivity</th>
<th>Sensitization</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>No information available</td>
<td>No information available</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Chronic toxicity
Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen

| Mutagenicity | No information available |
| Reproductive effects | No information available |
| Developmental effects | No information available |
| Teratogenicity | No information available |
| Target Organ Effects | No information available |
| Endocrine Disruptor Information | No information available |

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>LC50= 161 mg/L Pimephales promelas 96 h</td>
<td>EC50 &gt; 500 mg/L 48 h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name
PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Agency</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
</tbody>
</table>
PICCS  
AICS  

United States of America Federal Regulations

SARA 313

SARA 311/312 Hazardous Categorization

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Health Hazard</td>
<td>yes</td>
</tr>
<tr>
<td>Acute Health Hazard</td>
<td>yes</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>yes</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>no</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>no</td>
</tr>
</tbody>
</table>

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

State Right-to-Know

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B3  Combustible liquid
D2B  Toxic materials

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>Part 5 Substance</td>
</tr>
</tbody>
</table>

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 07-Jun-2011
Revision Note No information available

HMIS (Hazardous Material Information System) Health 1 Flammability 2 Reactivity 1
Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
# 1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Common name</th>
<th>THINNER NO. 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>F041-0019</td>
</tr>
<tr>
<td>Trade name</td>
<td>THINNER CLEAR</td>
</tr>
<tr>
<td>Product Class</td>
<td>PAINT THINNER</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372</td>
</tr>
<tr>
<td>Emergency telephone</td>
<td>800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400</td>
</tr>
</tbody>
</table>

# 2. HAZARDS IDENTIFICATION

## Emergency Overview

**DANGER!**

**FLAMMABLE LIQUID AND VAPOR.**
**HARMFUL IF INHALED.**
**HARMFUL OR FATAL IF SWALLOWED.**
**MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.**
**MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.**
**MAY BE HARMFUL IF ABSORBED THROUGH SKIN.**

### Potential health effects

**Principle Routes of Exposure**

Eye contact, Inhalation, Skin contact.

**Acute effects**

- **Eyes**
  Moderately irritating to the eyes.
- **Skin**
  Irritating to skin.
- **Inhalation**
  Irritating to respiratory system.
- **Ingestion**
  May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

**Chronic effects**

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions**


**Interactive effects**

Use of alcoholic beverages may enhance toxic effects.

**Potential environmental effects**

See Section 12 for additional Ecological Information

**Target Organ Effects**

Central nervous system, Eyes, Kidney, Liver, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>108-88-3</td>
<td>30 - 60</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>108-10-1</td>
<td>30 - 60</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Flammable.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information Not applicable

7. HANDLING AND STORAGE

Handling Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOluene</td>
<td>20 ppm TWA</td>
<td>100 ppm TWA; 375 mg/m³ TWA; 150 ppm STEL; 560 mg/m³ STEL</td>
<td>TWA: 50 ppm TWAEV; 188 mg/m³ STEL Skin</td>
<td>TWA: 20 ppm TWA</td>
<td>50 ppm TWA; 188 mg/m³ TWA</td>
</tr>
<tr>
<td>Methyl isobutyl ketone</td>
<td>20 ppm TWA: 75 ppm STEL</td>
<td>50 ppm TWA; 205 mg/m³ TWA; 75 ppm STEL; 300 mg/m³ STEL; 100 ppm TWA; 410 mg/m³ TWA</td>
<td>TWA: 50 ppm TWAEV; 205 mg/m³ STEL; 75 ppm STEV; 307 mg/m³ STEV</td>
<td>TWA: 50 ppm TWA STEL; 75 ppm STEL</td>
<td>50 ppm TWA; 205 mg/m³ TWA; 75 ppm STEL; 307 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection
Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection
If splashes are likely to occur, wear Goggles.

Respiratory protection
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point
5°C / 41.0°F

Method
Pensky Martens - Closed Cup

Boiling range
110 - 117°C / 230.0 - 243.0°F

Upper explosion limit
No information available

Lower explosion limit
No information available

Evaporation rate
No information available

Vapor pressure
No information available

Vapor density
No information available

Specific Gravity
.83639 g/cm³

Density
6.96000 lbs/gal

Volatile organic compounds (VOC) content
6.960 lbs/gal

Volatile by weight
100.000 %

Volatile by volume
100.000 %

10. STABILITY AND REACTIVITY
10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Chemical stability</th>
<th>Stable.</th>
<th>Conditions to avoid</th>
<th>Heat, flames and sparks.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompatible products</td>
<td>Strong oxidizing agents.</td>
<td>Possibility of hazardous reactions</td>
<td>None under normal processing</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>636 mg/kg ( Rat )</td>
<td>8390 mg/kg ( Rabbit )</td>
<td>12.5 mg/L ( Rat ) 4 h</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>2080 mg/kg ( Rat )</td>
<td>16000 mg/kg ( Rabbit )</td>
<td>8.2 mg/L ( Rat ) 4 h</td>
</tr>
</tbody>
</table>

Irritation | No information available |
Corrosivity | No information available |
Sensitization | No information available |

Chronic toxicity

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>A3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mutagenicity | No information available |
Reproductive effects | No information available |
Developmental effects | No information available |
Teratogenicity | No information available |
Target Organ Effects | Central nervous system, Eyes, Kidney, Liver, Respiratory system, Skin. |
Endocrine Disruptor Information | No information available |

12. ECOLOGICAL INFORMATION

Ecotoxicity
### Component Toxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>EC50 &gt; 433 mg/L 96 h</td>
<td>LC50 11.0-15.0 mg/L 96 h</td>
<td>EC50 = 19.7 mg/L 30 min</td>
<td>EC50 = 5.46 - 9.83 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td>EC50 = 12.5 mg/L 72 h</td>
<td>LC50 14.1-17.16 mg/L 72 h</td>
<td></td>
<td>EC50 = 11.5 mg/L 48 h</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>EC50 = 400 mg/L 96 h</td>
<td>LC50 496-514 mg/L 96 h</td>
<td>EC50 = 79.6 mg/L 5 min</td>
<td>EC50 = 170 mg/L 48 h</td>
</tr>
</tbody>
</table>

#### 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated packaging**
Empty containers should be taken for local recycling, recovery or waste disposal.

#### 14. TRANSPORT INFORMATION

**DOT**
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

**Proper shipping name**
UN1263, PAINT RELATED MATERIAL, 3, PGII, ERG 128

#### 15. REGULATORY INFORMATION

**International Inventories**
- TSCA: Complies
- DSL/NDSL: Complies
- EINECS/ELINCS: Complies
- CHINA: Complies
- ENCS: Complies
- KECL: Complies
- PICCS: Complies
- AICS: Complies

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
- Component TOLUENE
- Component METHYL ISOBUTYL KETONE

**United States of America Federal Regulations**

**SARA 313**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>
SARA 311/312 Hazardous Categorization

<table>
<thead>
<tr>
<th>Chronic Health Hazard</th>
<th>Acute Health Hazard</th>
<th>Fire Hazard</th>
<th>Sudden Release of Pressure Hazard</th>
<th>Reactive Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>

### Component CWA - Reportable Quantities CWA - Toxic Pollutants CWA - Priority Pollutants CWA - Hazardous Substances

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>1000 lb RQ</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

CERCLA

**United States of America State Regulations**

**California Prop. 65**

This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>108-88-3</td>
<td>Developmental Female Reproductive</td>
</tr>
</tbody>
</table>

**State Right-to-Know**

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Other international regulations**

**Canada**

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**WHMIS Classification**

B2 Flammable liquid  
D2A Very toxic materials

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
</tbody>
</table>

**Legend**

NPRI - National Pollutant Release Inventory
16. OTHER INFORMATION

Revision Date 30-Mar-2011
Revision Note No information available
HMIS (Hazardous Material Information System) Health 2* Flammability 3 Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name: THINNER NO. 22  
Product code: F041-0022  
Trade name: THINNER CLEAR  
Product Class: PAINT THINNER

Manufacturer: Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372

Emergency telephone: 800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

COMBUSTIBLE LIQUID AND VAPOR. HARMFUL IF INHALED. HARMFUL OR FATAL IF SWALLOWED. MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure: Eye contact, Inhalation, Skin contact.

Acute effects

- Eyes: Moderately irritating to the eyes.
- Skin: Irritating to skin.
- Inhalation: Irritating to respiratory system.
- Ingestion: May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions: No information available

Interactive effects: No information available

Potential environmental effects: See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
</table>

WARNING! COMBUSTIBLE LIQUID AND VAPOR. HARMFUL IF INHALED. HARMFUL OR FATAL IF SWALLOWED. MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
3. COMPOSITION/INFORMATION ON INGREDIENTS

| PROPYLENE GLYCOL MONOMEMETHYL ETHER ACETATE | 108-65-6 | 60 - 100 |

4. FIRST AID MEASURES

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes.

**Skin contact:** Wash off immediately with soap and plenty of water.

**Ingestion:** If swallowed, do not induce vomiting. Get medical attention immediately.

**Inhalation:** Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

**Flammable properties** Combustible material.

**Suitable extinguishing media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

**Hazardous decomposition products** Oxides of carbon, hydrocarbons.

**Specific hazards arising from the chemical** Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

**Protective equipment and precautions for firefighters** Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Other information** Not applicable

7. HANDLING AND STORAGE

**Handling** Close container after each use. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

**Storage** Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWA: 50 ppm TWA; 270 mg/m³ TWA</td>
</tr>
<tr>
<td>MONOMETHYL ETHER ACETATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Engineering measures**
Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment**

**Skin protection**
Lightweight protective clothing, Apron, Impervious gloves

**Eye/face protection**
Safety glasses with side-shields

**Respiratory protection**
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application.

Follow respirator manufacturer's directions for respirator use.

**General hygiene considerations**
Handle in accordance with good industrial hygiene and safety practice.
Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>47°C / 116.0°F</td>
</tr>
<tr>
<td>Boiling range</td>
<td>139 - 141°C / 283.0 - 285.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.96310 g/cm³</td>
</tr>
<tr>
<td>Density</td>
<td>8.01444 lbs/gal</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>7.692 lbs/gal</td>
</tr>
<tr>
<td>Volatile by weight</td>
<td>95.9800 %</td>
</tr>
<tr>
<td>Volatile by volume</td>
<td>95.7940 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

**Chemical stability**
Stable.

**Conditions to avoid**
Heat, flames and sparks. Reacts with air to form peroxides.

**Incompatible products**
Strong oxidizing agents.

**Possibility of hazardous reactions**
None under normal processing.

11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

**Component Information**

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
</table>
11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Component</th>
<th>Irritation</th>
<th>Corrosivity</th>
<th>Sensitization</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>No information available</td>
<td>No information available</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Chronic toxicity
Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen

<table>
<thead>
<tr>
<th>Component</th>
<th>Mutagenicity</th>
<th>Reproductive effects</th>
<th>Developmental effects</th>
<th>Teratogenicity</th>
<th>Target Organ Effects</th>
<th>Endocrine Disruptor Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>No information available</td>
<td>No information available</td>
<td>No information available</td>
<td>No information available</td>
<td>No information available</td>
<td>No information available</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>LC50= 161 mg/L Pimephales promelas 96 h</td>
<td>EC50 &gt; 500 mg/L 48 h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name
PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Agency</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
</tbody>
</table>
PICCS  Complies
AICS  Complies

United States of America Federal Regulations

SARA 313

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: no
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

State Right-to-Know

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B3  Combustible liquid
D2B  Toxic materials

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>Part 5 Substance</td>
</tr>
</tbody>
</table>

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 16-May-2011

Revision Note No information available

HMIS (Hazardous Material Information System)
Health 1  Flammability 2  Reactivity 1
Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name                  THINNER NO. 24
Product code                 F041-0024
Trade name                   THINNER CLEAR
Product Class                PAINT THINNER
Manufacturer                 Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone          800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview
WARNING!

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure    Eye contact, Inhalation, Skin contact.
Acute effects
Eyes                           Moderately irritating to the eyes.
Skin                           Irritating to skin.
Inhalation                     Irritating to respiratory system.
Ingestion                      May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates
                                and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects
NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous
system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions  Central nervous system. Skin disorders. Respiratory disorders.
Interactive effects            Use of alcoholic beverages may enhance toxic effects.
Potential environmental effects See Section 12 for additional Ecological Information
Target Organ Effects           Central nervous system, Eyes, Peripheral Nervous System (PNS), Respiratory system, Skin

3. COMPOSITION/INFORMATION ON INGREDIENTS
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>METHYL N-AMYL KETONE</td>
<td>110-43-0</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties: Combustible material.
Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products: Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical: Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters: Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up: If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information: Not applicable

7. HANDLING AND STORAGE

Handling: Close container after each use. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>: 50 ppm TWA</td>
<td>: 100 ppm TWA; 465 mg/m³ TWA</td>
<td>TWA: 50 ppm TWAEV; 233 mg/m³ TWA</td>
<td>TWA: 25 ppm TWA; 115 mg/m³ TWA</td>
<td>: 50 ppm TWA; 235 mg/m³ TWA ; 100 ppm STEL; 465 mg/m³ STEL</td>
</tr>
</tbody>
</table>

**Engineering measures**
Ensure adequate ventilation, especially in confined areas

**Personal Protective Equipment**

- **Skin protection**: Lightweight protective clothing, Apron, Impervious gloves
- **Eye/face protection**: Safety glasses with side-shields
- **Respiratory protection**: Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.
- **General hygiene considerations**: Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Flash point**: 39°C / 102.0°F
- **Boiling range**: 147 - 154°C / 297.0 - 309.0°F
- **Upper explosion limit**: No information available
- **Lower explosion limit**: No information available
- **Evaporation rate**: No information available
- **Vapor pressure**: No information available
- **Vapor density**: No information available
- **Specific Gravity**: .81716 g/cm³
- **Density**: 6.79999 lbs/gal
- **Volatile organic compounds (VOC) content**: 6.800 lbs/gal
- **Volatile by weight**: 100.0000 %
- **Volatile by volume**: 100.0000 %

#### 10. STABILITY AND REACTIVITY

- **Chemical stability**: Stable.
- **Incompatible products**: Strong oxidizing agents.
- **Conditions to avoid**: Heat, flames and sparks.
- **Possibility of hazardous reactions**: None under normal processing

#### 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**
11. TOXICOLOGICAL INFORMATION

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation (Rabbit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>1670 mg/kg</td>
<td>12600 µL/kg</td>
<td>12600 µL/kg</td>
</tr>
</tbody>
</table>

Irritation: No information available
Corrosivity: No information available
Sensitization: No information available

Chronic toxicity
Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity: No information available
Reproductive effects: No information available
Developmental effects: No information available
Teratogenicity: No information available
Target Organ Effects: Central nervous system, Eyes, Peripheral Nervous System (PNS), Respiratory system, Skin.
Endocrine Disruptor Information: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>LC50 126-137 mg/L</td>
<td>Pimephales promelas 96 h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name
PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories
TSCA: Complies
DSL/NDSL: Complies
EINECS/ELINCS: Complies
CHINA: Complies
ENCS: Complies
KECL: Complies
PICCS  Complies  
AICS  Complies

United States of America Federal Regulations

SARA 313

SARA 311/312 Hazardous Categorization

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Health Hazard</td>
<td>no</td>
</tr>
<tr>
<td>Acute Health Hazard</td>
<td>yes</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>yes</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>no</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>no</td>
</tr>
</tbody>
</table>

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification

B3  Combustible liquid
D2B  Toxic materials

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>30-Mar-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision Note</td>
<td>No information available</td>
</tr>
<tr>
<td>HMIS (Hazardous Material Information System)</td>
<td>Health 2  Flammability 2  Reactivity 1</td>
</tr>
</tbody>
</table>
Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name  THINNER NO.26  
Product code  F041-0026  
Trade name  THINNER CLEAR  
Product Class  PAINT THINNER  
Manufacturer  Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372  
Emergency telephone  800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.  
HARMFUL IF INHALED.  
HARMFUL OR FATAL IF SWALLOWED.  
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.  
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure  Eye contact, Inhalation, Skin contact.
Acute effects

<table>
<thead>
<tr>
<th>Eyes</th>
<th>Moderately irritating to the eyes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>Irritating to skin.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Irritating to respiratory system.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.</td>
</tr>
</tbody>
</table>

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions  No information available
Interactive effects  No information available
Potential environmental effects  See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
</table>

_____________________________________________________________________________________________
3. COMPOSITION/INFORMATION ON INGREDIENTS

| ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN) | 2807-30-9 | 30 - 60 |

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

Skin contact: Wash off immediately with soap and plenty of water.

Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Combustible material.

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

Hazardous decomposition products Oxides of carbon, hydrocarbons.

Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other information Not applicable

7. HANDLING AND STORAGE

Handling Close container after each use. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)</td>
<td></td>
<td></td>
<td>TWA: 25 ppm TWA; 110 mg/m³ TWA Skin</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Skin protection
Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection
Safety glasses with side-shields

Respiratory protection
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application.

Follow respirator manufacturer's directions for respirator use.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point
57°C / 135.0°F

Method
Pensky Martens - Closed Cup

Boiling range
100 - 154°C / 212.0 - 310.0°F

Upper explosion limit
No information available

Lower explosion limit
No information available

Evaporation rate
No information available

Vapor pressure
No information available

Vapor density
No information available

Specific Gravity
.96406 g/cm³

Density
8.02245 lbs/gal

Volatile organic compounds (VOC) content
7.600 lbs/gal

Volatile by weight
100.0000 %

Volatile by volume
100.0000 %

10. STABILITY AND REACTIVITY

Chemical stability
Stable.

Conditions to avoid
Heat, flames and sparks.

Incompatible products
Strong oxidizing agents.

Possibility of hazardous reactions
None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. TOXICOLOGICAL INFORMATION

| ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN) | 3089 mg/kg (Rat) | 960 µL/kg (Rabbit) |

Irritation: No information available
Corrosivity: No information available
Sensitization: No information available

Chronic toxicity
Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity: No information available
Reproductive effects: No information available
Developmental effects: No information available
Teratogenicity: No information available
Target Organ Effects: No information available
Endocrine Disruptor Information: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

13. DISPOSAL CONSIDERATIONS

Waste disposal methods: Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging: Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT: Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name: PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories

TSCA: Complies
DSL/NDSL: Complies
EINECS/ELINCS: Complies
CHINA: Complies
ENC: Does not Comply
KECL: Complies
PICCS: Complies
AICS: Complies

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
Component
ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)

United States of America Federal Regulations

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)</td>
<td>2807-30-9</td>
<td>30 - 60</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: yes
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>State Right-to-Know</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Other international regulations

Canada
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B3  Combustible liquid
D2B  Toxic materials

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 11-Apr-2011
Revision Note No information available
Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name
NO. 39 THINNER
Product code
F041-0039
Trade name
THINNER CLEAR
Product Class
PAINT THINNER
Manufacturer
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone
800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview
WARNING!
COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL OR FATAL IF SWALLOWED.
HARMFUL IF INHALED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects
Principle Routes of Exposure
Eye contact, Inhalation, Skin contact.
Acute effects
Eyes
Moderately irritating to the eyes.
Skin
Irritating to skin.
Inhalation
Irritating to respiratory system.
Ingestion
May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects
NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions
Central nervous system. Skin disorders. Respiratory disorders.

Interactive effects
Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects
See Section 12 for additional Ecological Information

Target Organ Effects
Central nervous system, Eyes, Peripheral Nervous System (PNS), Respiratory system, Skin

3. COMPOSITION/INFORMATION ON INGREDIENTS
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>110-43-0</td>
<td>30 - 60</td>
</tr>
<tr>
<td>ETHYL 3-ETHOXYPROPIONATE</td>
<td>763-69-9</td>
<td>30 - 60</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties: Combustible material.
Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products: Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical: Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters: Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up: If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information: Not applicable

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>: 50 ppm TWA</td>
<td>: 100 ppm TWA; 465 mg/m³ TWA</td>
<td>TWA: 50 ppm TWAEV; 233 mg/m³ TWAEV</td>
<td>TWA: 25 ppm TWA; 115 mg/m³ TWA</td>
<td>TWA: 50 ppm TWA; 235 mg/m³ TWA : 100 ppm STEL; 465 mg/m³ STEL</td>
</tr>
<tr>
<td>ETHYL 3-ETHOXYPROPIONATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering measures

Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

- **Skin protection**: Lightweight protective clothing, Apron, Impervious gloves
- **Eye/face protection**: Safety glasses with side-shields
- **Respiratory protection**: Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer’s directions for respirator use.
- **General hygiene considerations**: Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>48°C / 118.0°F</td>
</tr>
<tr>
<td>Boiling range</td>
<td>147 - 165°C / 297.0 - 329.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>.88074 g/cm³</td>
</tr>
<tr>
<td>Density</td>
<td>7.32908 lbs/gal</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>6.264 lbs/gal</td>
</tr>
<tr>
<td>Volatile by weight</td>
<td>85.4720 %</td>
</tr>
<tr>
<td>Volatile by volume</td>
<td>86.2624 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

- **Chemical stability**: Stable.
- **Conditions to avoid**: Heat, flames and sparks.
- **Incompatible products**: Strong oxidizing agents.
- **Possibility of hazardous reactions**: None under normal processing

11. TOXICOLOGICAL INFORMATION

- **Acute toxicity**: 

---

Revision Date 07-Jun-2011
11. TOXICOLOGICAL INFORMATION

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal (Rabbit)</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>1670 mg/kg</td>
<td>12600 µL/kg</td>
<td></td>
</tr>
<tr>
<td>ETHYL 3-ETHOXYPROPIONATE</td>
<td>3200 mg/kg</td>
<td>10 mL/kg</td>
<td></td>
</tr>
<tr>
<td>DEFOAMER</td>
<td>17 g/kg (Rat)</td>
<td>2 g/kg (Rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Irritation: No information available
Corrosivity: No information available
Sensitization: No information available

Chronic toxicity

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity: No information available
Reproductive effects: No information available
Developmental effects: No information available
Teratogenicity: No information available
Target Organ Effects: Central nervous system, Eyes, Peripheral Nervous System (PNS), Respiratory system, Skin.

Endocrine Disruptor Information: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>LC50 126-137 mg/L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHYL 3-ETHOXYPROPIONATE</td>
<td>LC50= 62 mg/L</td>
<td></td>
<td></td>
<td>EC50 = 970 mg/L 48 h</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name
PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
United States of America Federal Regulations

SARA 313

SARA 311/312 Hazardous Categorization

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Health Hazard</td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>Acute Health Hazard</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>no</td>
<td></td>
</tr>
</tbody>
</table>

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
D2B  Toxic materials

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 07-Jun-2011
Revision Note No information available
Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name      NO. 42 THINNER
Product code     F041-0042
Trade name       THINNER CLEAR
Product Class    PAINT THINNER

Manufacturer     Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone  800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

FLAMMABLE LIQUID AND VAPOR.
HARMFUL OR FATAL IF SWALLOWED.
HARMFUL IF INHALED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

Principle Routes of Exposure    Eye contact, Inhalation, Skin contact.

Acute effects

Eyes    Moderately irritating to the eyes.
Skin    Irritating to skin.
Inhalation    Irritating to respiratory system.
Ingestion    May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions    Central nervous system. Skin disorders. Respiratory disorders.
Interactive effects    Use of alcoholic beverages may enhance toxic effects.
Potential environmental effects    See Section 12 for additional Ecological Information
Target Organ Effects    Central nervous system, Eyes, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>78-93-3</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes.

**Skin contact:** Wash off immediately with soap and plenty of water.

**Ingestion:** If swallowed, do not induce vomiting. Get medical attention immediately.

**Inhalation:** Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

**Flammable properties** Flammable.

**Suitable extinguishing media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

**Hazardous decomposition products** Oxides of carbon, hydrocarbons.

**Specific hazards arising from the chemical** Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

**Protective equipment and precautions for firefighters** Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Other information** Not applicable

7. HANDLING AND STORAGE

**Handling** Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines**

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>: 200 ppm TWA : 300 ppm STEL</td>
<td>: 200 ppm TWA : 590 mg/m³ TWA : 300 ppm STEL; 885 mg/m³ STEL</td>
<td>TWA: 50 ppm TWAEV; 150 mg/m³ TWAEV STEL: 100 ppm STEV; 300 mg/m³ STEV</td>
<td>TWA: 200 ppm TWA STEL: 300 ppm STEL</td>
<td>: 200 ppm TWA : 590 mg/m³ TWA : 300 ppm STEL; 885 mg/m³ STEL</td>
</tr>
</tbody>
</table>

**Engineering measures**
Ensure adequate ventilation, especially in confined areas

**Personal Protective Equipment**

| Skin protection   | Lightweight protective clothing, Apron, Impervious gloves |
| Eye/face protection | If splashes are likely to occur, wear Goggles. |
| Respiratory protection | **Use only with adequate ventilation.** Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. |
| General hygiene considerations | Use chemical resistant coveralls or apron to protect against skin and clothing contamination. |

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Flash point**
-5°C / 23°F

**Boiling range**
78 - 80°C / 172 - 176.0°F

**Upper explosion limit**
No information available

**Lower explosion limit**
No information available

**Evaporation rate**
No information available

**Vapor pressure**
No information available

**Vapor density**
No information available

**Specific Gravity**
.80635 g/cm³

**Density**
6.71001 lbs/gal

**Volatile organic compounds (VOC) content**
6.710 lbs/gal

**Volatile by weight**
100.0000 %

**Volatile by volume**
100.0000 %

### 10. STABILITY AND REACTIVITY

**Chemical stability**
Stable.

**Conditions to avoid**
Heat, flames and sparks.

**Incompatible products**
Strong oxidizing agents.

**Possibility of hazardous reactions**
None under normal processing

### 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**
11. TOXICOLOGICAL INFORMATION

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (mg/kg, Rat)</th>
<th>LD50 Dermal (mg/kg, Rabbit)</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>2737</td>
<td>6480</td>
<td></td>
</tr>
</tbody>
</table>

Irritation: No information available
Corrosivity: No information available
Sensitization: No information available

Chronic toxicity:
Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity: No information available
Reproductive effects: No information available
Developmental effects: No information available
Teratogenicity: No information available
Target Organ Effects: Central nervous system, Eyes, Respiratory system, Skin.
Endocrine Disruptor Information: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>LC50 3130-3320 mg/L</td>
<td>EC50 = 3426 mg/L 5 min</td>
<td>EC50 = 3403 mg/L 30 min</td>
<td>EC50 &gt; 520 mg/L 48 h</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods: Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Contaminated packaging: Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT: Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.
Proper shipping name: UN1193,METHYL ETHYL KETONE,3,PGII,ERG 127

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
</tbody>
</table>
CHINA Complies
ENCS Complies
KECL Complies
PICCS Complies
AICS Complies

United States of America Federal Regulations

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>78-93-3</td>
<td>60 - 100</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: no
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B2  Flammable liquid
D2B  Toxic materials

Legend
NPRI - National Pollutant Release Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

Revision Date 07-Jun-2011
Revision Note
No information available

HMIS (Hazardous Material Information System) Health 2 Flammability 3 Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name          NO. 45 THINNER
Product code         F041-0045
Trade name           THINNER CLEAR
Product Class        PAINT THINNER
Manufacturer         Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone  800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

FLAMMABLE LIQUID AND VAPOR.
POISON, MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure      Eye contact, Inhalation, Skin contact.

Acute effects

Eyes                          Moderately irritating to the eyes.
Skin                          Irritating to skin.
Inhalation                    Irritating to respiratory system.
Ingestion                     May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.


Interactive effects Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects See Section 12 for additional Ecological Information

Target Organ Effects Blood, Central nervous system, Gastrointestinal tract, Eyes, Liver, Reproductive System, Respiratory system, Skin, Kidney
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL Ether Acetate</td>
<td>108-65-6</td>
<td>30 - 60</td>
</tr>
<tr>
<td>ETHANOL</td>
<td>64-17-5</td>
<td>30 - 60</td>
</tr>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL Ether (SKIN)</td>
<td>2807-30-9</td>
<td>1 - 5</td>
</tr>
<tr>
<td>METHANOL (SKIN)</td>
<td>67-56-1</td>
<td>1 - 5</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>141-78-6</td>
<td>1 - 5</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>108-10-1</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

Skin contact: Wash off immediately with soap and plenty of water.

Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Flammable.

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

Hazardous decomposition products Oxides of carbon, hydrocarbons.

Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other information Not applicable
7. HANDLING AND STORAGE

Handling
Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage
Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>1000 ppm STEL</td>
<td>1000 ppm TWA; 1900 mg/m³ TWA</td>
<td>TWA: 50 ppm TWA; 270 mg/m³ TWA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHANOL</td>
<td>20 ppm TWA; 250 ppm STEL</td>
<td>200 ppm TWA; 260 mg/m³ TWA; 250 ppm STEL; 325 mg/m³ STEL Skin</td>
<td>TWA: 200 ppm TWAEV; 262 mg/m³ TWAEV STEL; 250 ppm STEV; 328 mg/m³ STEV Skin</td>
<td>TWA: 200 ppm TWA; 260 mg/m³ TWA; 250 ppm STEL; 310 mg/m³ STEL</td>
<td></td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>400 ppm TWA</td>
<td>400 ppm TWA; 1400 mg/m³ TWA</td>
<td>TWA: 400 ppm TWAEV; 1440 mg/m³ TWAEV</td>
<td>TWA: 400 ppm TWA; 1400 mg/m³ TWA</td>
<td></td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>20 ppm TWA; 75 ppm STEL</td>
<td>50 ppm TWA; 205 mg/m³ TWA; 75 ppm STEL; 300 mg/m³ STEL; 100 ppm TWA; 410 mg/m³ TWA</td>
<td>TWA: 50 ppm TWAEV; 205 mg/m³ TWAEV STEL; 75 ppm STEV; 307 mg/m³ STEV</td>
<td>TWA: 50 ppm TWA STEL; 75 ppm STEL</td>
<td></td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection
Lightweight protective clothing, Apron, Impervious gloves

If splashes are likely to occur, wear Goggles.

Eye/face protection
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

Respiratory protection

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>16°C / 61.0°F</td>
</tr>
<tr>
<td>Boiling range</td>
<td>64 - 154°C / 147.0 - 310.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>.88699 g/cm³</td>
</tr>
<tr>
<td>Density</td>
<td>7.38111 lbs/gal</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>7.329 lbs/gal</td>
</tr>
<tr>
<td>Volatile by weight</td>
<td>100.0000 %</td>
</tr>
<tr>
<td>Volatile by volume</td>
<td>100.0000 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

| Chemical stability                           | Stable.                             |
| Conditions to avoid                          | Heat, flames and sparks. Reacts with air to form peroxides. |
| Possibility of hazardous reactions           | None under normal processing       |

11. TOXICOLOGICAL INFORMATION

Acute toxicity

<table>
<thead>
<tr>
<th>Component Information</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL</td>
<td>8532 mg/kg (Rat)</td>
<td>5000 mg/kg (Rabbit)</td>
<td></td>
</tr>
<tr>
<td>MONOMETHYL ETHER ACETATE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHANOL</td>
<td>7060 mg/kg (Rat)</td>
<td>5000 mg/kg (Rabbit)</td>
<td></td>
</tr>
<tr>
<td>ETHYLENE GLYCOL</td>
<td>3089 mg/kg (Rat)</td>
<td>960 µL/kg (Rabbit)</td>
<td></td>
</tr>
<tr>
<td>MONOPROPYL ETHER (SKIN)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>METHANOL (SKIN)</td>
<td>5628 mg/kg (Rat)</td>
<td>15800 mg/kg (Rabbit)</td>
<td></td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>5620 mg/kg (Rat)</td>
<td>20 mL/kg (Rabbit) 18000 mg/kg (Rabbit)</td>
<td></td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>2080 mg/kg (Rat)</td>
<td>16000 mg/kg (Rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Irritation                                      | No information available |
Corrosivity                                     | No information available |
Sensitization                                   | No information available |

Chronic toxicity

The table below indicates whether each agency has listed any ingredient as a carcinogen

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>A3</td>
<td>Group 1</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>A3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mutagenicity                                | No information available |
Reproductive effects                        | No information available |
Developmental effects                       | No information available |
Teratogenicity                              | No information available |
Target Organ Effects                        | Blood, Central nervous system, Gastrointestinal tract, Eyes, Liver, Reproductive System, Respiratory system, Skin, Kidney. |
Endocrine Disruptor Information             | No information available |

Revision Date: 30-Mar-2011
12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>LC50= 161 mg/L Pimephales promelas 96 h</td>
<td></td>
<td></td>
<td>EC50 &gt; 500 mg/L 48 h</td>
</tr>
<tr>
<td>ETHANOL</td>
<td>LC50 12.0 - 16.0 mL/L Oncorhynchus mykiss 96 h LC50 13400 - 15100 mg/L Pimephales promelas 96 h LC50&gt; 100 mg/L Pimephales promelas 96 h</td>
<td>EC50 = 35470 mg/L 5 min EC50 = 34634 mg/L 30 min</td>
<td>LC50 9268 - 14221 mg/L 48 h EC50 = 10800 mg/L 24 h EC50 = 2 mg/L 48 h</td>
<td></td>
</tr>
<tr>
<td>METHANOL (SKIN)</td>
<td>LC50 13500 - 17600 mg/L Lepomis macrochirus 96 h LC50 18 - 20 mL/L Oncorhynchus mykiss 96 h LC50 19500 - 20700 mg/L Oncorhynchus mykiss 96 h LC50= 28200 mg/L Pimephales promelas 96 h LC50&gt; 100 mg/L Pimephales promelas 96 h</td>
<td>EC50 = 43000 mg/L 5 min EC50 = 40000 mg/L 15 min EC50 = 39000 mg/L 25 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>EC50 = 3300 mg/L 48 h LC50 220-250 mg/L Pimephales promelas 96 h LC50 352-500 mg/L Oncorhynchus mykiss 96 h LC50= 484 mg/L Oncorhynchus mykiss 96 h</td>
<td>EC50 = 1180 mg/L 5 min EC50 = 5870 mg/L 15 min EC50 = 7400 mg/L 2 h EC50 = 1500 mg/L 15 min</td>
<td>EC50 = 560 mg/L 48 h</td>
<td></td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>EC50 = 400 mg/L 96 h LC50 496-514 mg/L Pimephales promelas 96 h</td>
<td>EC50 = 79.6 mg/L 5 min</td>
<td>EC50 = 170 mg/L 48 h</td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name
UN1263, PAINT RELATED MATERIAL, 3, PGII, ERG 128

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
</tbody>
</table>
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

**Component**
- ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)
- METHANOL (SKIN)
- METHYL ISOBUTYL KETONE

**United States of America Federal Regulations**

**SARA 313**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)</td>
<td>2807-30-9</td>
<td>1 - 5</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>METHANOL (SKIN)</td>
<td>67-56-1</td>
<td>1 - 5</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>108-10-1</td>
<td>0.1 - 1</td>
<td>1.0 % de minimis concentration</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazardous Categorization**

- Chronic Health Hazard: no
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

**CERCLA**

**United States of America State Regulations**

**California Prop. 65**

This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>64-17-5</td>
<td>Carcinogen Developmental</td>
</tr>
</tbody>
</table>

**State Right-to-Know**

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>METHANOL (SKIN)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other international regulations**

**Canada**

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.
WHMIS Classification
B2 Flammable liquid
D2A Very toxic materials

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>Part 5 Substance</td>
</tr>
<tr>
<td>ETHANOL</td>
<td>Part 5 Substance</td>
</tr>
<tr>
<td>METHANOL (SKIN)</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>Part 5 Substance</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
</tbody>
</table>

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 30-Mar-2011
Revision Note No information available

HMIS (Hazardous Material Information System) Health 2 Flammability 3 Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Common name</th>
<th>NO 48 THINNER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>F041-0048</td>
</tr>
<tr>
<td>Trade name</td>
<td>THINNER CLEAR</td>
</tr>
<tr>
<td>Product Class</td>
<td>PAINT THINNER</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372</td>
</tr>
<tr>
<td>Emergency telephone</td>
<td>800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400</td>
</tr>
</tbody>
</table>

2. HAZARDS IDENTIFICATION

Emergency Overview

**WARNING!**

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

<table>
<thead>
<tr>
<th>Principle Routes of Exposure</th>
<th>Eye contact, Inhalation, Skin contact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute effects</td>
<td></td>
</tr>
<tr>
<td>Eyes</td>
<td>Moderately irritating to the eyes.</td>
</tr>
<tr>
<td>Skin</td>
<td>Irritating to skin.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Irritating to respiratory system.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.</td>
</tr>
</tbody>
</table>

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions: No information available

Interactive effects: No information available

Potential environmental effects: See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
</table>

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Page 1 / 5
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>NO.</th>
<th>CHEMICAL</th>
<th>CAS NO</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>3.1</td>
<td>HEXYL ACETATE</td>
<td>88230-35-7</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes.

**Skin contact:** Wash off immediately with soap and plenty of water.

**Ingestion:** If swallowed, do not induce vomiting. Get medical attention immediately.

**Inhalation:** Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

**Flammable properties** Combustible material.

**Suitable extinguishing media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

**Hazardous decomposition products** Oxides of carbon, hydrocarbons.

**Specific hazards arising from the chemical** Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

**Protective equipment and precautions for firefighters** Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Other information** Not applicable

7. HANDLING AND STORAGE

**Handling** Close container after each use. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

**Storage** Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEXYL ACETATE</td>
<td></td>
<td>TWA: 50 ppm TWA; 294 mg/m³ TWA</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering measures

Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection

Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection

Safety glasses with side-shields

Respiratory protection

Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point

57°C / 134.0°F

Boiling range

164 - 176°C / 327.0 - 349.0°F

Upper explosion limit

No information available

Lower explosion limit

No information available

Evaporation rate

No information available

Vapor pressure

No information available

Vapor density

No information available

Specific Gravity

.87364 g/cm³

Density

7.26998 lbs/gal

Volatile organic compounds (VOC) content

7.270 lbs/gal

Volatile by weight

100.0000 %

Volatile by volume

100.0000 %

10. STABILITY AND REACTIVITY

Chemical stability

Stable.

Conditions to avoid

Heat, flames and sparks.

Incompatible products

Strong oxidizing agents. Alkalines.

Possibility of hazardous reactions

None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

Irritation

No information available

Corrosivity

No information available

Sensitization

No information available
11. TOXICOLOGICAL INFORMATION

Chronic toxicity
Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity
Reproductive effects
Developmental effects
Teratogenicity
Target Organ Effects
Endocrine Disruptor Information

12. ECOLOGICAL INFORMATION

Ecotoxicity

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name
PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Agency</th>
<th>Complies/Does not Comply</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Does not Comply</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Does not Comply</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

United States of America Federal Regulations

SARA 313

SARA 311/312 Hazardous Categorization

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Sudden Release of Pressure Hazard  no  
Reactive Hazard  no  

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

State Right-to-Know
Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B3  Combustible liquid
D2B  Toxic materials

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 30-Mar-2011
Revision Note No information available

HMIS (Hazardous Material Information System)  Health 2  Flammability 2  Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910. To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name  THINNER NO. 49
Product code  F041-0049
Trade name  THINNER CLEAR
Product Class  PAINT THINNER
Manufacturer  Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone  800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure  Eye contact, Inhalation, Skin contact.

Acute effects

- Eyes  Moderately irritating to the eyes.
- Skin  Irritating to skin.
- Inhalation  Irritating to respiratory system.
- Ingestion  May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects
NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions  No information available
Interactive effects  No information available
Potential environmental effects  See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
</table>

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Page 1 / 6
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Purity</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td>98-56-6</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes.

**Skin contact:** Wash off immediately with soap and plenty of water.

**Ingestion:** If swallowed, do not induce vomiting. Get medical attention immediately.

**Inhalation:** Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

**Flammable properties** Combustible material.

**Suitable extinguishing media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

**Hazardous decomposition products** Chlorine. Fluorine.

**Specific hazards arising from the chemical** Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

**Protective equipment and precautions for firefighters** Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Other information** Not applicable

7. HANDLING AND STORAGE

**Handling** Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

**Storage** Close container after each use. Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRFUORIDE</td>
<td>TWA: 2.5 mg/m³</td>
<td></td>
<td>TWA: 2.5 mg/m³</td>
<td>TWA: 2.5 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

<table>
<thead>
<tr>
<th>Protection Type</th>
<th>Equipment Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin protection</td>
<td>Lightweight protective clothing, Apron, Impervious gloves</td>
</tr>
<tr>
<td>Eye/face protection</td>
<td>Safety glasses with side-shields</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td><strong>Use only with adequate ventilation.</strong> Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.</td>
</tr>
</tbody>
</table>

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point            | 40°C / 104.0°F |
Method                 | Pensky Martens - Closed Cup |
Boiling range          | 139°C / 282.0°F |
Upper explosion limit  | No information available |
Lower explosion limit  | No information available |
Evaporation rate       | No information available |
Vapor pressure         | No information available |
Vapor density          | No information available |
Specific Gravity       | 1.34591 g/cm³ |
Density                | 11.19996 lbs/gal |
Volatile organic compounds (VOC) content | .000 lbs/gal |
Volatile by weight     | 100.0000 % |
Volatile by volume     | 100.0000 % |

10. STABILITY AND REACTIVITY

Chemical stability     | Stable. |
Conditions to avoid    | Heat, flames and sparks. |
Incompatible products  | Strong oxidizing agents. |
Possibility of hazardous reactions | None under normal processing |

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component Information</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRFUORIDE</td>
<td>13 g/kg (Rat)</td>
<td>2 mg/kg (Rabbit)</td>
<td>33 mg/L (Rat) 4 h</td>
</tr>
</tbody>
</table>
12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>P. CHLOROBENZOTRIFLUORIDE</td>
<td></td>
<td></td>
<td>EC50 = 11.1 mg/L 5 min</td>
<td>EC50 = 3.68 mg/L 48 h</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>EC50 = 13.4 mg/L 15 min</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>EC50 = 14.3 mg/L 30 min</td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name
PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th></th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
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<tr>
<td>DSL/NDSL</td>
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</tr>
<tr>
<td>EINECS/ELINCS</td>
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<td>CHINA</td>
<td></td>
</tr>
<tr>
<td>ENCS</td>
<td></td>
</tr>
<tr>
<td>KECL</td>
<td></td>
</tr>
<tr>
<td>PICCS</td>
<td></td>
</tr>
<tr>
<td>AICS</td>
<td></td>
</tr>
</tbody>
</table>

United States of America Federal Regulations
SARA 313 Hazardous Categorization

Chronic Health Hazard  no
Acute Health Hazard  yes
Fire Hazard  yes
Sudden Release of Pressure Hazard  no
Reactive Hazard  no

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B3  Combustible liquid
D2B  Toxic materials

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date  30-Mar-2011
Revision Note  No information available
HMIS (Hazardous Material Information System)  Health 2  Flammability 2  Reactivity 1
Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name: THINNER NO.50
Product code: F041-0050
Trade name: THINNER CLEAR
Product Class: PAINT THINNER
Manufacturer: Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone: 800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

FLAMMABLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

Principle Routes of Exposure: Eye contact, Inhalation, Skin contact.

Acute effects

Eyes: Moderately irritating to the eyes.
Skin: Irritating to skin.
Inhalation: Irritating to respiratory system.
Ingestion: May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions: Central nervous system. Skin disorders. Respiratory disorders.
Interactive effects: Use of alcoholic beverages may enhance toxic effects.
Potential environmental effects: See Section 12 for additional Ecological Information
Target Organ Effects: Central nervous system, Eyes, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-PROPYL KETONE</td>
<td>107-87-9</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Flammable.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information Not applicable

7. HANDLING AND STORAGE

Handling Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-PROPYL KETONE</td>
<td>150 ppm STEL</td>
<td>200 ppm TWA; 700 mg/m³ TWA; 250 ppm STEL; 875 mg/m³ STEL</td>
<td>TWA: 150 ppm TWAEV; 530 mg/m³ TWAEV</td>
<td>STEL: 150 ppm STEL</td>
<td>200 ppm TWA; 700 mg/m³ TWA</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection
Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection
If splashes are likely to occur, wear Goggles.

Respiratory protection
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

Respiratory protection

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point
8°C / 46.0°F

Boiling range
101 - 105°C / 214.0 - 221.0°F

Upper explosion limit
No information available

Lower explosion limit
No information available

Evaporation rate
No information available

Vapor pressure
No information available

Vapor density
No information available

Specific Gravity
.80754 g/cm³

Density
6.71998 lbs/gal

Volatile organic compounds (VOC) content
6.720 lbs/gal

Volatile by weight
100.000 %

Volatile by volume
100.000 %

10. STABILITY AND REACTIVITY

Chemical stability
Stable.

Conditions to avoid
Heat, flames and sparks.

Incompatible products
Strong oxidizing agents.

Possibility of hazardous reactions
None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity
11. TOXICOLOGICAL INFORMATION

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-PROPYL KETONE</td>
<td>1600 mg/kg (Rat)</td>
<td>6500 mg/kg (Rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Irritation: No information available
Corrosivity: No information available
Sensitization: No information available

Chronic toxicity
Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity: No information available
Reproductive effects: No information available
Developmental effects: No information available
Teratogenicity: No information available
Target Organ Effects: Central nervous system, Eyes, Respiratory system, Skin.
Endocrine Disruptor Information: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-PROPYL KETONE</td>
<td>LC50 1190-1290 mg/L</td>
<td>Pimephales promelas 96 h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods: Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Contaminated packaging: Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT: Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.
Proper shipping name: UN1263, PAINT RELATED MATERIAL, 3, PGII, ERG 128

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Agency</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td></td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td></td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td></td>
</tr>
<tr>
<td>CHINA</td>
<td></td>
</tr>
</tbody>
</table>
ENCS  Complies
KECL  Complies
PICCS  Complies
AICS  Complies

United States of America Federal Regulations

SARA 313

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: no
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-PROPYL KETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B2  Flammable liquid
D2B  Toxic materials

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 30-Mar-2011
Revision Note No information available

HMIS (Hazardous Material Information System)  Health 2  Flammability 3  Reactivity 1
Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
**1. PRODUCT AND COMPANY IDENTIFICATION**

<table>
<thead>
<tr>
<th>Common name</th>
<th>THINNER NO. 51</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>F041-0051</td>
</tr>
<tr>
<td>Trade name</td>
<td>THINNER ELECTROSTATIC</td>
</tr>
<tr>
<td>Product Class</td>
<td>PAINT THINNER</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372</td>
</tr>
<tr>
<td>Emergency telephone</td>
<td>800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400</td>
</tr>
</tbody>
</table>

**2. HAZARDS IDENTIFICATION**

**Emergency Overview**

**DANGER!**

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPORS MAY CAUSE FLASH FIRE.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

**Potential health effects**

<table>
<thead>
<tr>
<th>Principle Routes of Exposure</th>
<th>Eye contact, Inhalation, Skin contact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute effects</td>
<td></td>
</tr>
<tr>
<td>Eyes</td>
<td>Moderately irritating to the eyes.</td>
</tr>
<tr>
<td>Skin</td>
<td>Irritating to skin.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Irritating to respiratory system.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed.</td>
</tr>
<tr>
<td>Chronic effects</td>
<td></td>
</tr>
</tbody>
</table>

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions**


**Interactive effects**

Use of alcoholic beverages may enhance toxic effects.

**Potential environmental effects**

See Section 12 for additional Ecological Information

**Target Organ Effects**

Blood, Central nervous system, Central Vascular System (CVS), Eyes, Gastrointestinal tract, Liver, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>78-93-3</td>
<td>60 - 100</td>
</tr>
<tr>
<td>ISOBUTYL ALCOHOL</td>
<td>78-83-1</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

Skin contact: Wash off immediately with soap and plenty of water.

Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties: Extremely flammable.

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

Hazardous decomposition products: Oxides of carbon, hydrocarbons.

Specific hazards arising from the chemical: Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters: Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other information: Not applicable

7. HANDLING AND STORAGE

Handling: Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Vapors may ignite explosively. Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>: 200 ppm TWA : 300 ppm STEL</td>
<td>: 200 ppm TWA : 590 mg/m³ TWA : 300 ppm STEL ; 885 mg/m³ STEL</td>
<td>TWA : 50 ppm TWAEV ; 150 mg/m³ TWAEV STEL : 100 ppm STEV ; 300 mg/m³ STEL</td>
<td>TWA : 200 ppm TWA STEL : 300 ppm STEL</td>
<td>: 200 ppm TWA : 590 mg/m³ TWA : 300 ppm STEL ; 885 mg/m³ STEL</td>
</tr>
<tr>
<td>ISOBUTYL ALCOHOL</td>
<td>: 50 ppm TWA</td>
<td>: 50 ppm TWA : 150 mg/m³ TWA : 100 ppm TWA ; 300 mg/m³ TWA</td>
<td>TWA : 50 ppm TWAEV ; 152 mg/m³ TWAEV</td>
<td>TWA : 50 ppm TWA</td>
<td>: 50 ppm TWA : 150 mg/m³ TWA : 75 ppm STEL ; 225 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

| Skin protection        | Lightweight protective clothing, Apron, Impervious gloves |
| Eye/face protection    | If splashes are likely to occur, wear Goggles.           |
| Respiratory protection | Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. |

General hygiene considerations
Avoid breathing dust created by good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>-7°C / 20.0°F</td>
</tr>
<tr>
<td>Boiling range</td>
<td>78 - 109°C / 172.0 - 228.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>.83678 g/cm³</td>
</tr>
<tr>
<td>Density</td>
<td>6.96328 lbs/gal</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>5.956 lbs/gal</td>
</tr>
<tr>
<td>Volatile by weight</td>
<td>85.5420 %</td>
</tr>
<tr>
<td>Volatile by volume</td>
<td>88.7765 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Chemical stability</th>
<th>Stable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions to avoid</td>
<td>Heat, flames and sparks.</td>
</tr>
<tr>
<td>Incompatible products</td>
<td>Strong oxidizing agents.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>None under normal processing</td>
</tr>
</tbody>
</table>
11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal (Rabbit)</th>
<th>LC50 Inhalation (Rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>2737 mg/kg</td>
<td>6480 mg/kg (Rabbit)</td>
<td></td>
</tr>
<tr>
<td>ISOBUTYL ALCOHOL</td>
<td>2460 mg/kg (Rat)</td>
<td>2000 mg/kg (Rabbit)</td>
<td>6.5 mg/L (Rat) 4 h</td>
</tr>
</tbody>
</table>

Irritation                      No information available
Corrosivity                     No information available
Sensitization                   No information available

Chronic toxicity

Carcinogenicity                The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity                   No information available
Reproductive effects           No information available
Developmental effects          No information available
Teratogenicity                 No information available
Target Organ Effects           Blood, Central nervous system, Central Vascular System (CVS), Eyes, Gastrointestinal tract, Liver, Respiratory system, Skin.
Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td></td>
<td></td>
<td>EC50 = 3426 mg/L 5 min</td>
<td>EC50 = 4025 - 6440 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EC50 = 3403 mg/L 30 min</td>
<td>EC50 = 5091 mg/L 48 h</td>
</tr>
<tr>
<td>ISOBUTYL ALCOHOL</td>
<td>EC50 = 230 mg/L 48 h</td>
<td></td>
<td>EC50 = 1224.6 mg/L 15 min</td>
<td>EC50 = 1070 - 1933 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EC50 = 1300 mg/L</td>
<td>EC50 = 1300 mg/L 48 h</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.
Proper shipping name: UN1993, FLAMMABLE LIQUID, N.O.S. (METHYL ETHYL KETONE, ISOBUTYL ALCOHOL), 3, PGII, ERG 128

15. REGULATORY INFORMATION

**International Inventories**

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td></td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td></td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td></td>
</tr>
<tr>
<td>CHINA</td>
<td></td>
</tr>
<tr>
<td>ENCS</td>
<td></td>
</tr>
<tr>
<td>KECL</td>
<td></td>
</tr>
<tr>
<td>PICCS</td>
<td></td>
</tr>
<tr>
<td>AICS</td>
<td></td>
</tr>
</tbody>
</table>

**United States of America Federal Regulations**

**SARA 313**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>78-93-3</td>
<td>60 - 100</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazardous Categorization**

- Chronic Health Hazard: no
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

**CERCLA**

**United States of America State Regulations**

**California Prop. 65**

This product contains the following Proposition 65 chemicals:

**State Right-to-Know**

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ISOBUTYL ALCOHOL</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**Other international regulations**

**Canada**

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**WHMIS Classification**

- B2 Flammable liquid
- D2A Very toxic materials
Component

NPRI

METHYL ETHYL KETONE Part 1, Group 1 Substance; Part 5 Substance
ISOBUTYL ALCOHOL Part 1, Group 1 Substance

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 30-Mar-2011
Revision Note No information available

HMIS (Hazardous Material Information System)
Health 2 Flammability 3 Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
### 1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Common name</th>
<th>THINNER NO. 52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>F041-0052</td>
</tr>
<tr>
<td>Trade name</td>
<td>THINNER CLEAR</td>
</tr>
<tr>
<td>Product Class</td>
<td>PAINT THINNER</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372</td>
</tr>
<tr>
<td>Emergency telephone</td>
<td>800-535-5053 INFOTRAC - TNEMEC REGULATORY DEPT: 816-474-3400</td>
</tr>
</tbody>
</table>

### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

**DANGER!**

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPORS MAY CAUSE FLASH FIRE. HARMFUL IF INHALED. HARMFUL OR FATAL IF SWALLOWED. MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

**Potential health effects**

**Principle Routes of Exposure**
- Eye contact, Inhalation, Skin contact.

**Acute effects**
- **Eyes**: Moderately irritating to the eyes.
- **Skin**: Irritating to skin.
- **Inhalation**: Irritating to respiratory system.
- **Ingestion**: May be harmful if swallowed.

**Chronic effects**

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions**
- Allergies, Skin disorders, Central nervous system, Gastrointestinal tract, Liver disorders, Respiratory disorders.

**Interactive effects**
- Use of alcoholic beverages may enhance toxic effects.

**Potential environmental effects**
- See Section 12 for additional Ecological Information

**Target Organ Effects**
- Blood, Central nervous system, Central Vascular System (CVS), Eyes, Gastrointestinal tract, Liver, Respiratory system, Skin

---

Page 1 / 6
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>78-93-3</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

Skin contact: Wash off immediately with soap and plenty of water.

Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Extremely flammable.

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

Hazardous decomposition products Oxides of carbon, hydrocarbons.

Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other information Not applicable

7. HANDLING AND STORAGE

Handling Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Vapors may ignite explosively. Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>: 200 ppm TWA : 300 ppm STEL</td>
<td>: 200 ppm TWA : 590 mg/m³ TWA : 300 ppm STEL; 885 mg/m³ STEL</td>
<td>TWA: 50 ppm TWAEV; 150 mg/m³ TWAEV STEL: 100 ppm STEV; 300 mg/m³ STEV</td>
<td>TWA: 200 ppm TWA STEL: 300 ppm STEL</td>
<td>: 200 ppm TWA: 590 mg/m³ TWA: 300 ppm STEL; 885 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection
Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection
If splashes are likely to occur, wear Goggles.

Respiratory protection
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point
-7°C / 20.0°F

Boiling range
78 - 80°C / 172.0 - 176.0°F

Upper explosion limit
No information available

Lower explosion limit
No information available

Evaporation rate
No information available

Vapor pressure
No information available

Vapor density
No information available

Specific Gravity
.80759 g/cm³

Density
6.72032 lbs/gal

Volatile organic compounds (VOC) content
6.679 lbs/gal

Volatile by weight
99.3900 %

Volatile by volume
99.5430 %

10. STABILITY AND REACTIVITY

Chemical stability
Stable.

Conditions to avoid
Heat, flames and sparks.

Incompatible products
Strong oxidizing agents.

Possibility of hazardous reactions
None under normal processing

11. TOXICOLOGICAL INFORMATION
11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>2737 mg/kg (Rat)</td>
<td>6480 mg/kg (Rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Irritation No information available

Corrosivity No information available

Sensitization No information available

Chronic toxicity

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity No information available

Reproductive effects No information available

Developmental effects No information available

Teratogenicity No information available

Target Organ Effects Blood, Central nervous system, Central Vascular System (CVS), Eyes, Gastrointestinal tract, Liver, Respiratory system, Skin.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>LC50 3130-3320 mg/L Pimephales promelas 96 h</td>
<td>EC50 = 3426 mg/L 5 min</td>
<td>EC50 = 3403 mg/L 30 min</td>
<td>EC50 &gt; 520 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name UN1263,PAINT RELATED MATERIAL,3,PGII,ERG 128

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDSL  Complies
EINECS/ELINCS  Complies
CHINA  Complies
ENCS  Complies
KECL  Complies
PICCS  Complies
AICS  Complies

United States of America Federal Regulations

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>78-93-3</td>
<td>60 - 100</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: no
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B2  Flammable liquid
D2A  Very toxic materials

Legend
NPRI - National Pollutant Release Inventory
16. OTHER INFORMATION

Revision Date 30-Mar-2011
Revision Note No information available

HMIS (Hazardous Material Information System)  Health 2  Flammability 3  Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name          NO. 53 THINNER
Product code         F041-0053
Trade name           THINNER CLEAR
Product Class        PAINT THINNER
Manufacturer          Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone   800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

HARMFUL IF INHALED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF SWALLOWED.

Potential health effects

Principle Routes of Exposure   Eye contact, Inhalation, Skin contact.
Acute effects
    Eyes            Irritating to eyes.
    Skin            Irritating to skin.
    Inhalation      Irritating to respiratory system.
    Ingestion       May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects
NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Interactive effects             Use of alcoholic beverages may enhance toxic effects.
Potential environmental effects  See Section 12 for additional Ecological Information
Target Organ Effects            Central nervous system, Gastrointestinal tract, Eyes, Liver, Reproductive System, Respiratory system

3. COMPOSITION/INFORMATION ON INGREDIENTS

_____________________________________________________________________________________________
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIOCTYL PHTHALATE</td>
<td>117-81-7</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

Skin contact: Wash off immediately with soap and plenty of water.

Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties: No information available.

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

Hazardous decomposition products: Oxides of carbon, hydrocarbons.

Specific hazards arising from the chemical: Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters: Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other information: Not applicable

7. HANDLING AND STORAGE

Handling: Close container after each use. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage: Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIOCTYL PHTHALATE</td>
<td>5 mg/m³ TWA</td>
<td>5 mg/m³ TWA : 10 mg/m³ STEL</td>
<td>TWA: 5 mg/m³ TWAEV STEL: 10 mg/m³ STEV</td>
<td>TWA: 3 mg/m³ TWA STEL: 5 mg/m³ STEL</td>
<td>5 mg/m³ TWA : 10 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection
Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection
Safety glasses with side-shields

Respiratory protection
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

Respiratory protection

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point
Not applicable

Method
Pensky Martens - Closed Cup

Boiling range
No information available

Upper explosion limit
No information available

Lower explosion limit
No information available

Evaporation rate
No information available

Vapor pressure
No information available

Vapor density
No information available

Specific Gravity
.98660 g/cm³

Density
8.20998 lbs/gal

Volatile organic compounds (VOC) content
8.210 lbs/gal

Volatile by weight
100.0000 %

Volatile by volume
100.0000 %

10. STABILITY AND REACTIVITY

Chemical stability
Stable.

Conditions to avoid
Heat, flames and sparks

Incompatible products
Strong oxidizing agents.

Possibility of hazardous reactions
None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIOCTYL PHTHALATE</td>
<td>6860 mg/kg (Rat)</td>
<td>24500 mg/kg (Rabbit)</td>
<td>10.62 mg/L (Rat) 4 h 23.67 mg/L (Rat) 1 h</td>
</tr>
</tbody>
</table>
Irritation
No information available

Corrosivity
No information available

Sensitization
No information available

Chronic toxicity

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIOCTYL PHthalate</td>
<td>A3</td>
<td>Reasonably Anticipated</td>
<td>X</td>
<td>A3</td>
<td></td>
</tr>
</tbody>
</table>

Mutagenicity
No information available

Reproductive effects
No information available

Developmental effects
No information available

Teratogenicity
No information available

Target Organ Effects
Central nervous system, Gastrointestinal tract, Eyes, Liver, Reproductive System, Respiratory system.

Endocrine Disruptor Information
No information available

<table>
<thead>
<tr>
<th>Component</th>
<th>EU - Endocrine Disrupters Candidate List</th>
<th>EU - Endocrine Disruptors - Evaluated Substances</th>
<th>Japan - Endocrine Disruptor Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIOCTYL PHthalate</td>
<td>Group II Chemical Group I Chemical</td>
<td>High Exposure Concern</td>
<td></td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIOCTYL PHthalate</td>
<td>EC50 &gt; 130 mg/L 72 h EC50 &gt; 0.1 mg/L 96 h</td>
<td>LC50 0.27 - 0.67 mg/L Pimephales promelas 96 h LC50&gt; 0.16 mg/L Pimephales promelas 96 h LC50&gt; 0.200 mg/L Lepomis macrochirus 96 h LC50&gt; 0.32 mg/L Brachydanio rerio 96 h LC50&gt; 0.32 mg/L Oncorhynchus mykiss 96 h LC50&gt; 0.32 mg/L Oryzias latipes 96 h LC50&gt; 0.32 mg/L Oryzias latipes 96 h LC50&gt; 0.32 mg/L Poecilia reticulata 96 h LC50&gt; 0.67 mg/L Oncorhynchus mykiss 96 h</td>
<td>EC50 = 800 mg/L 5 min EC50 = 800 mg/L 15 min EC50 = 800 mg/L 30 min</td>
<td>LC50 = 9.4 mg/L 48 h EC50 &gt; 0.16 mg/L 48 h</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.
Proper shipping name: PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>TSCA</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

**Component**
DIOCTYL PHTHALATE

United States of America Federal Regulations

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIOCTYL PHTHALATE</td>
<td>117-81-7</td>
<td>60 - 100</td>
<td>0.1 % de minimis concentration</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: yes
- Acute Health Hazard: yes
- Fire Hazard: no
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIOCTYL PHTHALATE</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CERCLA

United States of America State Regulations

California Prop. 65

This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIOCTYL PHTHALATE</td>
<td>117-81-7</td>
<td>Carcinogen Developmental Male Reproductive</td>
</tr>
</tbody>
</table>

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIOCTYL PHTHALATE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations
Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
D2A Very toxic materials

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIOCTYL PHthalATE</td>
<td>Part 1, Group 1 Substance</td>
</tr>
</tbody>
</table>

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 16-May-2011
Revision Note No information available

HMIS (Hazardous Material Information System) Health 1 Flammability 0 Reactivity 0

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Common name</th>
<th>NO. 55 THINNER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>F041-0055</td>
</tr>
<tr>
<td>Trade name</td>
<td>THINNER CLEAR</td>
</tr>
<tr>
<td>Product Class</td>
<td>PAINT THINNER</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372</td>
</tr>
<tr>
<td>Emergency telephone</td>
<td>800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400</td>
</tr>
</tbody>
</table>

2. HAZARDS IDENTIFICATION

Emergency Overview

**DANGER!**

HARMFUL IF INHALED.
MAY CAUSE LUNG INJURY.
MAY CAUSE ALLERGIC RESPIRATORY REACTION; EFFECTS MAY BE PERMANENT.
MAY CAUSE ALLERGIC SKIN REACTION; EFFECTS MAY BE PERMANENT.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
COMBUSTIBLE LIQUID AND VAPOR.

Potential health effects

**Principle Routes of Exposure**

Eye contact, Inhalation, Skin contact.

**Acute effects**

- **Eyes**
  Moderately irritating to the eyes. Risk of serious damage to eyes.
- **Skin**
  Irritating to skin. May cause sensitization by skin contact.
- **Inhalation**
  Irritating to respiratory system. May cause allergic respiratory reaction.
- **Ingestion**
  May be harmful if swallowed.

**Chronic effects**

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions**

Central nervous system. Skin disorders. Respiratory disorders.

**Interactive effects**

Use of alcoholic beverages may enhance toxic effects.

**Potential environmental effects**

See Section 12 for additional Ecological Information

**Target Organ Effects**

Blood, Central nervous system, Eyes, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE DIISOCYANATE (TID) POL</td>
<td>64742-95-6</td>
<td>60 - 100</td>
</tr>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td>95-63-6</td>
<td>10 - 30</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>108-67-8</td>
<td>1 - 5</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>25340-17-4</td>
<td>1 - 5</td>
</tr>
<tr>
<td>DIETHYLBENZENE</td>
<td>1330-20-7</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td>XYLENE</td>
<td>584-84-9</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td>TOLUENE DIISOCYANATE (TDI) MONOMER</td>
<td>100-41-4</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

Skin contact: Wash off immediately with soap and plenty of water.

Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Combustible material.

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical


Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other information Not applicable
7. HANDLING AND STORAGE

Handling
Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage
Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>TWA: 25 ppm</td>
<td></td>
<td>TWA: 25 ppm TWA: 123 mg/m³</td>
<td>TWA: 25 ppm TWA: 123 mg/m³</td>
<td>TWA: 125 mg/m³ TWA: 25 ppm STEL: 170 mg/m³ STEL: 35 ppm</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>TWA: 25 ppm</td>
<td></td>
<td>TWA: 25 ppm TWA: 123 mg/m³</td>
<td>TWA: 25 ppm TWA: 123 mg/m³</td>
<td>TWA: 125 mg/m³ TWA: 25 ppm STEL: 170 mg/m³ STEL: 35 ppm</td>
</tr>
<tr>
<td>XYLENE</td>
<td>: 100 ppm TWA : 150 ppm STEL</td>
<td>: 100 ppm TWA; 435 mg/m³ TWA : 150 ppm STEL; 655 mg/m³ STEL</td>
<td>TWA: 100 ppm TWAEV; 434 mg/m³ TWAEV STEL: 150 ppm STEV; 651 mg/m³ STEV</td>
<td>TWA: 100 ppm TWA STEL: 150 ppm STEL</td>
<td>: 100 ppm TWA; 435 mg/m³ TWA : 150 ppm STEL; 655 mg/m³ STEL</td>
</tr>
<tr>
<td>TOLUENE DIISOCYANATE (TDI) MONOMER</td>
<td>0.005 ppm TWA : 0.02 ppm STEL</td>
<td>: 0.005 ppm TWA; 0.04 mg/m³ TWA : 0.02 ppm STEL; 0.15 mg/m³ STEL : 0.02 ppm Ceiling; 0.14 mg/m³ Ceiling</td>
<td>TWA: 0.005 ppm TWAEV; 0.036 mg/m³ TWAEV STEL: 0.02 ppm STEV; 0.14 mg/m³ STEV</td>
<td>TWA: 0.005 ppm TWA (designated substance regulation, listed under Isocyanates, organic compounds); 0.005 ppm TWA (applies to workplaces to which the designated substance regulation does not apply) STEL: 0.02 ppm STEL CEV: 0.02 ppm Ceiling (designated substances regulation)</td>
<td>: 0.02 ppm TWA; 0.14 mg/m³ TWA</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>: 100 ppm TWA : 125 ppm STEL</td>
<td>: 100 ppm TWA; 435 mg/m³ TWA : 125 ppm STEL; 545 mg/m³ STEL</td>
<td>TWA: 100 ppm TWAEV; 434 mg/m³ TWAEV STEL: 125 ppm STEV; 543 mg/m³ STEV</td>
<td>TWA: 100 ppm TWA STEL: 125 ppm STEL</td>
<td>: 100 ppm TWA; 435 mg/m³ TWA : 125 ppm STEL; 545 mg/m³ STEL</td>
</tr>
</tbody>
</table>
Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment
Skin protection
Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection
Safety glasses with side-shields

Respiratory protection
INDIVIDUALS WITH LUNG OR BREATHING PROBLEMS OR PRIOR REACTION TO ISOCYANATES MUST NOT BE EXPOSED TO VAPOR OR SPRAY MIST. Do not breathe vapor or spray mist. Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. An airline respirator (TC 19C NIOSH/MSHA) is recommended. A vapor-particulate respirator (TC 23C NIOSH/MSHA) may be appropriate where air monitoring demonstrates vapors are less than ten times the applicable exposure limits and the isocyanate concentration is less than its applicable exposure limit. The use of an air-supplied respirator is mandatory whenever the airborne concentration of isocyanate monomer is unknown.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.
Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point
39°C / 102.0°F

Boiling range
No information available

Upper explosion limit
No information available

Lower explosion limit
No information available

Evaporation rate
No information available

Vapor pressure
No information available

Vapor density
No information available

Specific Gravity
.97138 g/cm3

Density
8.08334 lbs/gal

Volatile organic compounds (VOC) content
3.127 lbs/gal

Volatile by weight
38.6770 %

Volatile by volume
43.0000 %

10. STABILITY AND REACTIVITY

Chemical stability
Stable.

Conditions to avoid
Heat, flames and sparks.
Amines.

Incompatible products

Possibility of hazardous reactions
None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal (Rabbit)</th>
<th>LCS0 Inhalation (Rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td>8400 mg/kg</td>
<td>2000 mg/kg</td>
<td>3400 ppm 4 h 5.2 mg/L</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>3400 mg/kg</td>
<td>3160 mg/kg</td>
<td>18 g/m³ 4 h</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>5000 mg/kg</td>
<td></td>
<td>24 g/m³ 4 h</td>
</tr>
</tbody>
</table>
11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Component</th>
<th>Rat (mg/kg)</th>
<th>Rabbit (mg/kg)</th>
<th>Rat (ppm)</th>
<th>Rabbit (mg/kg)</th>
<th>Rat (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>4300</td>
<td>1700</td>
<td>5000</td>
<td>47635</td>
<td>14</td>
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<tr>
<td>TOLUENE DIISOCYANATE (TDI) MONOMER</td>
<td>5800</td>
<td>16</td>
<td>14</td>
<td>13.9</td>
<td>14</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>3500</td>
<td>15354</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Irritation: No information available
Corrosivity: No information available
Sensitization: No information available

Chronic toxicity

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component</th>
<th>ACIGH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE DIISOCYANATE (TDI) MONOMER</td>
<td></td>
<td>Group 2B</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>A3</td>
<td>Group 2B</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Mutagenicity: No information available
Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenicity: No information available
Target Organ Effects: Blood, Central nervous system, Eyes, Respiratory system, Skin.
Endocrine Disruptor Information: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td></td>
<td></td>
<td>EC50 = 6.14 mg/L 48 h</td>
<td></td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>LC50= 7.19-8.28 mg/L</td>
<td>Pimephales promelas 96 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>LC50= 3.48 mg/L Pimephales promelas 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td>LC50= 13.4 mg/L Pimephales promelas 96 h</td>
<td></td>
<td>EC50 = 0.0084 mg/L 24 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.661-4.093 mg/L Oncorhynchus mykiss 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50= 13.5-17.3 mg/L Oncorhynchus mykiss 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50= 13.1-16.5 mg/L Lepomis macrochirus 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50= 19 mg/L Lepomis macrochirus 96 h LC50= 7.711-9.591 mg/L Lepomis macrochirus 96 h LC50= 23.53-29.97 mg/L Pimephales promelas 96 h LC50= 780 mg/L Cyprinus carpio 96 h LC50= 780 mg/L Cyprinus carpio 96 h LC50= 30.26-40.75 mg/L Poecilia reticulata 96 h</td>
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<td></td>
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<tr>
<td></td>
<td>LC50= 7.72 mg/L Pimephales promelas 96 h</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>EC50 = 0.0084 mg/L 24 h</td>
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<td></td>
<td>1.2,4-TRIMETHYLBENZENE</td>
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<td>2.661-4.093 mg/L Oncorhynchus mykiss 96 h</td>
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<td>1,2,4-TRIMETHYLBENZENE</td>
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<td></td>
<td>EC50 = 0.0084 mg/L 24 h</td>
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</tr>
<tr>
<td></td>
<td>XYLENE</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>EC50 = 0.0084 mg/L 24 h</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated packaging**
Empty containers should be taken for local recycling, recovery or waste disposal.

### 14. TRANSPORT INFORMATION

**DOT**
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

**Proper shipping name**
PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

### 15. REGULATORY INFORMATION

**International Inventories**

- **TSCA** Complies
- **DSL/NDSL** Complies
- **EINECS/ELINCS** Does not Comply
- **CHINA** Complies
- **ENCS** Complies
- **KECL** Complies
- **PICCS** Complies
- **AICS** Complies

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

**Component**

- XYLENE
- TOLUENE DIISOCYANATE (TDI) MONOMER
- ETHYL BENZENE

**United States of America Federal Regulations**

**SARA 313**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>95-63-6</td>
<td>10 - 30</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>0.1 - 1</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>Component</td>
<td>CAS-No</td>
<td>Reportable Quantities</td>
<td>Chronic Health Hazard</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>--------</td>
<td>-----------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>TOLUENE DIISOCYANATE (TDI) MONOMER</td>
<td>584-84-9</td>
<td>0.1 - 1</td>
<td>yes</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>0.1 - 1</td>
<td>yes</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazardous Categorization**

- Chronic Health Hazard: yes
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

**CERCLA**

<table>
<thead>
<tr>
<th>Component</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA EHS RQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE DIISOCYANATE (TDI) MONOMER</td>
<td></td>
<td>100 lb EPCRA RQ</td>
</tr>
</tbody>
</table>

**California States of America State Regulations**

**California Prop. 65**

This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE DIISOCYANATE (TDI) MONOMER</td>
<td>584-84-9</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

**State Right-to-Know**

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>DIETHYLBENZENE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>TOLUENE DIISOCYANATE (TDI) MONOMER</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Other International Regulations**

**Canada**

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**WHMIS Classification**

- B3   Combustible liquid
- D2A  Very toxic materials
### 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td>Part 5 Substance</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYL BENZENE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
<tr>
<td>XYLENE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>Part 1, Group 1 Substance</td>
</tr>
</tbody>
</table>

**Legend**

NPRI - National Pollutant Release Inventory

---

**Revision Date**

20-Jun-2011

**Revision Note**

No information available

**HMIS (Hazardous Material Information System)**

- **Health**: 3*
- **Flammability**: 2
- **Reactivity**: 1

**Disclaimer**

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

*End of MSDS*
1. PRODUCT AND COMPANY IDENTIFICATION

Common name NO. 56 THINNER
Product code F041-0056
Trade name THINNER CLEAR
Product Class PAINT THINNER
Manufacturer Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone 800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure Eye contact, Inhalation, Skin contact.
Acute effects Eyes Moderately irritating to the eyes.
Skin Irritating to skin.
Inhalation Irritating to respiratory system.
Ingestion May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions Central nervous system. Skin disorders. Respiratory disorders.
Interactive effects Use of alcoholic beverages may enhance toxic effects.
Potential environmental effects See Section 12 for additional Ecological Information
Target Organ Effects Central nervous system, Eyes, Peripheral Nervous System (PNS), Respiratory system, Skin

3. COMPOSITION/INFORMATION ON INGREDIENTS
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td>98-56-6</td>
<td>60 - 100</td>
</tr>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>110-43-0</td>
<td>10 - 30</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Combustible material.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information Not applicable

7. HANDLING AND STORAGE

Handling Close container after each use. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA: 2.5 mg/m³</td>
<td>TWA: 2.5 mg/m³</td>
<td>TWA: 2.5 mg/m³</td>
<td>TWA: 2.5 mg/m³</td>
<td>: 50 ppm TWA: 235 mg/m³ TWA: 100 ppm STEL: 465 mg/m³ STEL</td>
</tr>
<tr>
<td>p-Chlorobenzotrifluoride</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methyl N-amyl ketone</td>
<td>: 50 ppm TWA</td>
<td>: 100 ppm TWA: 465 mg/m³ TWA</td>
<td>TWA: 50 ppm TWAEV: 233 mg/m³ TWAEV</td>
<td>TWA: 25 ppm TWA: 115 mg/m³ TWA</td>
<td></td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

<table>
<thead>
<tr>
<th>Skin protection</th>
<th>Lightweight protective clothing, Apron, Impervious gloves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye/face protection</td>
<td>Safety glasses with side-shields</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.</td>
</tr>
</tbody>
</table>

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>42°C / 107.0°F</td>
</tr>
<tr>
<td>Boiling range</td>
<td>139 - 154°C / 282.0 - 309.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.17154 g/cm³</td>
</tr>
<tr>
<td>Density</td>
<td>9.74899 lbs/gal</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>4.203 lbs/gal</td>
</tr>
<tr>
<td>Volatile by weight</td>
<td>89.0780 %</td>
</tr>
<tr>
<td>Volatile by volume</td>
<td>86.2624 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

| Chemical stability                | Stable.                |
| Conditions to avoid               | Heat, flames and sparks. |
| Incompatible products            | Strong oxidizing agents. |
| Possibility of hazardous reactions | None under normal processing |

11. TOXICOLOGICAL INFORMATION
11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal (Rabbit)</th>
<th>LC50 Inhalation (Rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td>13 g/kg</td>
<td>2 mg/kg</td>
<td>33 mg/L 4 h</td>
</tr>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>1670 mg/kg</td>
<td>12600 µL/kg</td>
<td></td>
</tr>
</tbody>
</table>

Irritation                        | No information available |
Corrosivity                       | No information available |
Sensitization                     | No information available |

Chronic toxicity

Carcinogenicity                   | The table below indicates whether each agency has listed any ingredient as a carcinogen |

Mutagenicity                      | No information available |
Reproductive effects              | No information available |
Developmental effects             | No information available |
Teratogenicity                    | No information available |
Target Organ Effects              | Central nervous system, Eyes, Peripheral Nervous System (PNS), Respiratory system, Skin. |
Endocrine Disruptor Information   | No information available |

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicty to algae</th>
<th>Toxicty to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td></td>
<td></td>
<td>EC50 = 11.1 mg/L 5 min</td>
<td>EC50 = 3.68 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EC50 = 13.4 mg/L 15 min</td>
<td>EC50 = 14.3 mg/L 30 min</td>
</tr>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>LC50 126-137 mg/L</td>
<td>Pimephales promelas 96 h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods            | Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. |
Contaminated packaging             | Empty containers should be taken for local recycling, recovery or waste disposal |

14. TRANSPORT INFORMATION

DOT                               | Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation. |
Proper shipping name              | UN1263,PAINT RELATED MATERIAL,3,PGIII,ERG 128 |

15. REGULATORY INFORMATION

International Inventories
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

**United States of America Federal Regulations**

**SARA 313**

**SARA 311/312 Hazardous Categorization**

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Health Hazard</td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>Acute Health Hazard</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>no</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CERCLA**

**United States of America State Regulations**

**California Prop. 65**

This product contains the following Proposition 65 chemicals:

**State Right-to-Know**

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other international regulations**

**Canada**

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**WHMIS Classification**

B3 Combustible liquid
D2B Toxic materials

**Legend**

NPRI - National Pollutant Release Inventory
16. OTHER INFORMATION

Revision Date 30-Mar-2011

Revision Note No information available

HMIS (Hazardous Material Information System) Health 2 Flammability 2 Reactivity 1

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End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name: THINNER NO. 57
Product code: F041-0057
Trade name: THINNER CLEAR
Product Class: PAINT THINNER
Manufacturer: Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone: 800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION; EFFECTS MAY BE PERMANENT.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

Principle Routes of Exposure: Eye contact, Inhalation, Skin contact.

Acute effects

Eyes: Moderately irritating to the eyes.
Skin: Irritating to skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Inhalation: Irritating to respiratory system.
Ingestion: May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.


Interactive effects: Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects: See Section 12 for additional Ecological Information.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td>64742-95-6</td>
<td>30 - 60</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>95-63-6</td>
<td>10 - 30</td>
</tr>
<tr>
<td>ALDIMINE</td>
<td>54914-37-3</td>
<td>10 - 30</td>
</tr>
<tr>
<td>DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE</td>
<td>124-17-4</td>
<td>5 - 10</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>108-67-8</td>
<td>5 - 10</td>
</tr>
<tr>
<td>DIETHYLDBENZENE</td>
<td>25340-17-4</td>
<td>1 - 5</td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>98-82-8</td>
<td>1 - 5</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>1 - 5</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Combustible material.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters
Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up
If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other information
Not applicable

7. HANDLING AND STORAGE

Handling
Close container after each use. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage
Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>TWA: 25 ppm</td>
<td></td>
<td>TWA: 25 ppm</td>
<td>TWA: 25 ppm</td>
<td>TWA: 125 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 123 mg/m³</td>
<td>TWA: 123 mg/m³</td>
<td>TWA: 25 ppm STEL: 170 mg/m³</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>TWA: 25 ppm</td>
<td></td>
<td>TWA: 25 ppm</td>
<td>TWA: 25 ppm</td>
<td>TWA: 125 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 123 mg/m³</td>
<td>TWA: 123 mg/m³</td>
<td>TWA: 25 ppm STEL: 170 mg/m³</td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>50 ppm TWA</td>
<td>50 ppm TWA</td>
<td>TWA: 50 ppm</td>
<td>TWA: 50 ppm</td>
<td>50 ppm TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>245 mg/m³</td>
<td>TWA: 246 mg/m³</td>
<td>TWA: 246 mg/m³</td>
<td>TWA: 170 mg/m³</td>
</tr>
<tr>
<td>XYLENE</td>
<td>100 ppm TWA; 150 ppm STEL</td>
<td>100 ppm TWA</td>
<td>435 mg/m³</td>
<td>TWA: 100 ppm TWA</td>
<td>TWA: 100 ppm TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 100 ppm TWA: 434 mg/m³</td>
<td>TWAEV: 434 mg/m³</td>
<td>TWAEV STEL: 150 ppm</td>
<td>TWA: 150 ppm STEL; 655 mg/m³</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100 ppm TWA; 125 ppm STEL</td>
<td>100 ppm TWA</td>
<td>435 mg/m³</td>
<td>TWA: 100 ppm TWA</td>
<td>TWA: 100 ppm TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 100 ppm TWA: 543 mg/m³</td>
<td>TWAEV: 543 mg/m³</td>
<td>TWAEV STEL: 125 ppm</td>
<td>TWA: 125 ppm STEL; 543 mg/m³</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment
| Skin protection          | Lightweight protective clothing, Apron, Impervious gloves |
| Eye/face protection      | Safety glasses with side-shields |
| Respiratory protection   | Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer’s directions for respirator use. |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point
43°C / 110.0°F
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling range</td>
<td>113 - 153°C / 235.0 - 307.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>88237 g/cm³</td>
</tr>
<tr>
<td>Density</td>
<td>7.34265 lbs/gal</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>6.161 lbs/gal</td>
</tr>
<tr>
<td>Volatile by weight</td>
<td>83.9060 %</td>
</tr>
<tr>
<td>Volatile by volume</td>
<td>83.6998 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>Stable.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Heat, flames and sparks.</td>
</tr>
<tr>
<td>Incompatible products</td>
<td>Strong oxidizing agents.</td>
</tr>
<tr>
<td></td>
<td>Acids.</td>
</tr>
<tr>
<td></td>
<td>Water.</td>
</tr>
<tr>
<td></td>
<td>Alkalis.</td>
</tr>
<tr>
<td>Possibility of hazardous</td>
<td>None under normal processing</td>
</tr>
<tr>
<td>reactions</td>
<td></td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

Acute toxicity

<table>
<thead>
<tr>
<th>Component Information</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td>8400 mg/kg</td>
<td>2000 mg/kg</td>
<td>3400 ppm ( Rat ) 4 h 5.2 mg/L ( Rat ) 4 h</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>3400 mg/kg</td>
<td>3160 mg/kg</td>
<td>18 g/m³ ( Rat ) 4 h</td>
</tr>
<tr>
<td>DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE</td>
<td>6500 mg/kg</td>
<td>14500 mg/kg</td>
<td>73.7 mg/L ( Rat ) 4 h</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>5000 mg/kg</td>
<td>3160 mg/kg</td>
<td>24 g/m³ ( Rat ) 4 h</td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>1400 mg/kg</td>
<td>39000 mg/m³</td>
<td>39000 mg/m³ ( Rat ) 4 h</td>
</tr>
<tr>
<td>XYLENE</td>
<td>4300 mg/kg</td>
<td>1700 mg/kg</td>
<td>5000 ppm ( Rat ) 4 h 47635 mg/L ( Rat ) 4 h</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>3500 mg/kg</td>
<td>15354 mg/kg</td>
<td>17.2 mg/L ( Rat ) 4 h</td>
</tr>
</tbody>
</table>

Irritation                     | No information available    |
Corrosivity                     | No information available    |
Sensitization                   | No information available    |

Chronic toxicity

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL BENZENE</td>
<td>A3</td>
<td>Group 2B</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mutagenicity                   | No information available    |
Reproductive effects            | No information available    |
Developmental effects           | No information available    |
Teratogenicity                  | No information available    |
Target Organ Effects            | Blood, Central nervous system, Gastrointestinal tract, Eyes, Kidney, Liver, Respiratory system, Skin. |
Endocrine Disruptor Information | No information available    |
## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50= 9.22 mg/L Oncorhynchus mykiss 96 h</td>
<td></td>
<td></td>
<td>EC50 = 6.14 mg/L 48 h</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>LC50= 7.72 mg/L Pimephales promelas 96 h</td>
<td></td>
<td></td>
<td>EC50 = 6.14 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE</td>
<td>LC50= 7.72 mg/L Pimephales promelas 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>LC50= 7.72 mg/L Pimephales promelas 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>EC50 = 2.6 mg/L 72 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50= 6.14-6.61 mg/L Pimephales promelas 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td>LC50= 13.4 mg/L Pimephales promelas 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>EC50 = 4.6 mg/L 72 h EC50 &gt; 438 mg/L 96 h EC50 &gt; 438 mg/L 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**

Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Contaminated packaging  Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT  Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name  PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Does not Comply</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

Component  DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE  CUMENE (SKIN)  XYLENE  ETHYL BENZENE

United States of America Federal Regulations

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>95-63-6</td>
<td>10 - 30</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE</td>
<td>124-17-4</td>
<td>5 - 10</td>
<td>1.0</td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>98-82-8</td>
<td>1 - 5</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>1 - 5</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>0.1 - 1</td>
<td>0.1 % de minimis concentration</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Categorization

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>100 lb RQ</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>1000 lb RQ</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

---

Page 6 / 8
CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUMENE (SKIN)</td>
<td>98-82-8</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>DIETHYLBENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>XYLENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B3 Combustible liquid
D2B Toxic materials

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td>Part 5 Substance</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
<tr>
<td>CUMENE (SKIN)</td>
<td>Part 1, Group 1 Substance</td>
</tr>
<tr>
<td>XYLENE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>Part 1, Group 1 Substance</td>
</tr>
</tbody>
</table>

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 20-Jun-2011
Revision Note No information available

HMIS (Hazardous Material Information System) Health 2 Flammability 2 Reactivity 1
Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal
Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any
of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown
health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that
these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name NO. 59 THINNER  
Product code F041-0059  
Trade name THINNER CLEAR  
Product Class PAINT THINNER  
Manufacturer Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372  
Emergency telephone 800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

HARMFUL IF INHALED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF SWALLOWED.

Potential health effects

Principle Routes of Exposure Eye contact, Inhalation, Skin contact.

Acute effects

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available

Interactive effects No information available

Potential environmental effects See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. COMPOSITION/INFORMATION ON INGREDIENTS

| ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN) | 2807-30-9 | 10 - 30 |

4. FIRST AID MEASURES

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes.

**Skin contact:** Wash off immediately with soap and plenty of water.

**Ingestion:** If swallowed, do not induce vomiting. Get medical attention immediately.

**Inhalation:** Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

**Flammable properties** No information available.

**Suitable extinguishing media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

**Hazardous decomposition products** Oxides of carbon, hydrocarbons.

**Specific hazards arising from the chemical** Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

**Protective equipment and precautions for firefighters** Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Other information** Not applicable

7. HANDLING AND STORAGE

**Handling** Close container after each use. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

**Storage** Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)</td>
<td>TWA: 25 ppm TWA; 110 mg/m³ TWA Skin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection
Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection
Safety glasses with side-shields

Respiratory protection
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point Not applicable
Boiling range 100 - 154°C / 212.0 - 310.0°F
Upper explosion limit No information available
Lower explosion limit No information available
Evaporation rate No information available
Vapor pressure No information available
Vapor density No information available
Specific Gravity .97885 g/cm³
Density 8.14547 lbs/gal
Volatile organic compounds (VOC) content 7.601 lbs/gal
Volatile by weight 100.0000 %
Volatile by volume 100.0000 %

10. STABILITY AND REACTIVITY

Chemical stability Stable.
Conditions to avoid Heat, flames and sparks.
Incompatible products Strong oxidizing agents.
Possibility of hazardous reactions None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER</td>
<td>90 mL/kg ( Rat )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)</td>
<td>3089 mg/kg ( Rat )</td>
<td>960 µL/kg ( Rabbit )</td>
<td></td>
</tr>
</tbody>
</table>

Page 3 / 6
Irritation: No information available
Corrosivity: No information available
Sensitization: No information available

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

12. ECOLOGICAL INFORMATION

Ecotoxicity

13. DISPOSAL CONSIDERATIONS

Waste disposal methods: Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging: Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT: Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name: PAINT & RELATED MATERIAL-(NMFC 149980 SUB 2), WATER-BASE, FREEZABLE

15. REGULATORY INFORMATION

International Inventories:

<table>
<thead>
<tr>
<th>Agency</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Does not Comply</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
Component
ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)
United States of America Federal Regulations

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)</td>
<td>2807-30-9</td>
<td>10 - 30</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: yes
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Other international regulations

Canada
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
D2B  Toxic materials

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 07-Jun-2011
Revision Note No information available
HMIS (Hazardous Material Information System)
Health 2  Flammability 0  Reactivity 0
Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name: THINNER NO. 60
Product code: F041-0060
Trade name: THINNER CLEAR
Product Class: PAINT THINNER
Manufacturer: Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone: 800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

FLAMMABLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

Principle Routes of Exposure: Eye contact, Inhalation, Skin contact.

Acute effects

Eyes: Moderately irritating to the eyes.
Skin: Irritating to skin.
Inhalation: Irritating to respiratory system.
Ingestion: May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions: Central nervous system. Skin disorders. Respiratory disorders.

Interactive effects: Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects: See Section 12 for additional Ecological Information

Target Organ Effects: Blood, Central nervous system, Eyes, Peripheral Nervous System (PNS), Respiratory system, Skin

Page 1 / 7
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>110-43-0</td>
<td>30 - 60</td>
</tr>
<tr>
<td>N-BUTANOL</td>
<td>71-36-3</td>
<td>10 - 30</td>
</tr>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td>64742-95-6</td>
<td>10 - 30</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>95-63-6</td>
<td>10 - 30</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>108-67-8</td>
<td>1 - 5</td>
</tr>
<tr>
<td>DIETHYLBENZENE</td>
<td>25340-17-4</td>
<td>1 - 5</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Flammable.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information Not applicable
7. HANDLING AND STORAGE

Handling
Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage
Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>: 50 ppm TWA</td>
<td>: 100 ppm TWA; 465 mg/m³ TWA</td>
<td>TWA: 50 ppm TWA: 233 mg/m³ TWA</td>
<td>TWA: 25 ppm TWA: 115 mg/m³ TWA</td>
<td>: 50 ppm TWA: 235 mg/m³ TWA</td>
</tr>
<tr>
<td>N-BUTANOL</td>
<td>: 20 ppm TWA</td>
<td>Skin : 50 ppm Ceiling: 150 mg/m³ Ceiling : 100 ppm TWA: 300 mg/m³ TWA</td>
<td>Ceiling: 50 ppm Ceiling: 152 mg/m³ Ceiling Skin TWA</td>
<td>TWA: 20 ppm TWA</td>
<td>: 50 ppm Peak; 150 mg/m³ Peak</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>TWA: 25 ppm</td>
<td>TWA: 25 ppm TWA: 123 mg/m³</td>
<td>TWA: 25 ppm TWA: 123 mg/m³</td>
<td>TWA: 125 mg/m³ TWA: 25 ppm STEL: 170 mg/m³ STEL: 35 ppm</td>
<td></td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>TWA: 25 ppm</td>
<td>TWA: 25 ppm TWA: 123 mg/m³</td>
<td>TWA: 25 ppm TWA: 123 mg/m³</td>
<td>TWA: 125 mg/m³ TWA: 25 ppm STEL: 170 mg/m³ STEL: 35 ppm</td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td>: 100 ppm TWA : 150 ppm STEL</td>
<td>: 100 ppm TWA: 435 mg/m³ TWA : 150 ppm STEL: 655 mg/m³ STEL</td>
<td>TWA: 100 ppm TWA: 434 mg/m³ TWA: 150 ppm STEL: 651 mg/m³ STEL</td>
<td>TWA: 100 ppm TWA STEL: 150 ppm STEL</td>
<td>: 100 ppm TWA: 435 mg/m³ TWA: 150 ppm STEL: 655 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

| Skin protection | Lightweight protective clothing, Apron, Impervious gloves |
| Eye/face protection | If splashes are likely to occur, wear Goggles. Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. |
| Respiratory protection | Follow respirator manufacturer's directions for respirator use. |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding. |

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>37°C / 98.0°F</td>
</tr>
<tr>
<td>Boiling range</td>
<td>116 - 154°C / 241.0 - 309.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES

Specific Gravity: 0.83761 g/cm³
Density: 6.97021 lbs/gal
Volatile organic compounds (VOC) content: 6.970 lbs/gal
Volatile by weight: 100.0000 %
Volatile by volume: 100.0000 %

10. STABILITY AND REACTIVITY

Chemical stability: Stable.
Conditions to avoid: Heat, flames and sparks.
Possibility of hazardous reactions: None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

<table>
<thead>
<tr>
<th>Component Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>METHYL N-AMYL KETONE</td>
</tr>
<tr>
<td>N-BUTANOL</td>
</tr>
<tr>
<td>AROMATIC HYDROCARBON</td>
</tr>
<tr>
<td>MIXTURE</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
</tr>
</tbody>
</table>

Irritation: No information available
Corrosivity: No information available
Sensitization: No information available

Chronic toxicity
Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity: No information available
Reproductive effects: No information available
Developmental effects: No information available
Teratogenicity: No information available
Target Organ Effects: Blood, Central nervous system, Eyes, Peripheral Nervous System (PNS), Respiratory system, Skin.

Endocrine Disruptor Information: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity.
<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl N-Amyl Ketone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N-Butanol</td>
<td>EC50 &gt; 500 mg/L 96 h</td>
<td>LC50 100000-500000 µg/L</td>
<td>EC50 = 2041.4 mg/L 5 min</td>
<td>EC50 = 1987 - 2072 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td>Pimephales promelas 96 h</td>
<td>Lepomis macrochirus 96 h</td>
<td>EC50 = 2186 mg/L 30 min</td>
<td>EC50 = 1983 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aromatic Hydrocarbon Mixture</td>
<td>LC50 = 9.22 mg/L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>LC50 = 6.14 mg/L 48 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene</td>
<td>LC50 = 3.48 mg/L Pimephales promelas 96 h</td>
<td>LC50 = 7.72 mg/L Pimephales promelas 96 h</td>
<td>LC50 = 50 mg/L 24 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xylene</td>
<td>LC50 = 13.4 mg/L Pimephales promelas 96 h</td>
<td>LC50 = 2.661-4.093 mg/L Oncorhynchus mykiss 96 h</td>
<td>LC50 = 0.0084 mg/L 24 h</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**

Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated packaging**

Empty containers should be taken for local recycling, recovery or waste disposal.

### 14. TRANSPORT INFORMATION

**DOT**

Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

**Proper shipping name**

UN1263, PAINT RELATED MATERIAL, 3, PGIII, ERG 128

### 15. REGULATORY INFORMATION

**International Inventories**

<table>
<thead>
<tr>
<th>TSCA</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
</tbody>
</table>
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

Component
XYLENE

United States of America Federal Regulations
SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-BUTANOL</td>
<td>71-36-3</td>
<td>10 - 30</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>95-63-6</td>
<td>10 - 30</td>
<td>1.0 % de minimis concentration</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>0.1 - 1</td>
<td>1.0 % de minimis concentration</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: yes
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>100 lb RQ</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>N-BUTANOL</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>1,3,5-TRIMETHYLBENZENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>DIETHYLBENZENE</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.
WHMIS Classification
B2 Flammable liquid
D2A Very toxic materials

<table>
<thead>
<tr>
<th>Component</th>
<th>NPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-BUTANOL</td>
<td>Part 1, Group 1 Substance</td>
</tr>
<tr>
<td>AROMATIC HYDROCARBON MIXTURE</td>
<td>Part 5 Substance</td>
</tr>
<tr>
<td>1,2,4-TRIMETHYLBENZENE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
<tr>
<td>XYLENE</td>
<td>Part 1, Group 1 Substance; Part 5 Substance</td>
</tr>
</tbody>
</table>

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 11-Apr-2011
Revision Note No information available

HMIS (Hazardous Material Information System) Health 2 Flammability 3 Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Common name</th>
<th>THINNER NO. 61</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>F041-0061</td>
</tr>
<tr>
<td>Trade name</td>
<td>THINNER CLEAR</td>
</tr>
<tr>
<td>Product Class</td>
<td>PAINT THINNER</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372</td>
</tr>
<tr>
<td>Emergency telephone</td>
<td>800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400</td>
</tr>
</tbody>
</table>

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

FLAMMABLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

**Principle Routes of Exposure**

Eye contact, Inhalation, Skin contact.

**Acute effects**

- **Eyes**
  Moderately irritating to the eyes.
- **Skin**
  Irritating to skin.
- **Inhalation**
  Irritating to respiratory system.
- **Ingestion**
  May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates
  and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

**Chronic effects**

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous
system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions**

Central nervous system. Skin disorders. Respiratory disorders.

**Interactive effects**

Use of alcoholic beverages may enhance toxic effects.

**Potential environmental effects**

See Section 12 for additional Ecological Information

**Target Organ Effects**

Central nervous system, Eyes, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>67-64-1</td>
<td>5 - 10</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

Skin contact: Wash off immediately with soap and plenty of water.

Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Flammable.

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

Hazardous decomposition products Oxides of carbon, hydrocarbons.

Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other information Not applicable

7. HANDLING AND STORAGE

Handling Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
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<table>
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<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>500 ppm TWA; 750 ppm STEL</td>
<td>750 ppm TWA; 1800 mg/m³ TWA; 2400 mg/m³ STEL</td>
<td>TWA: 500 ppm TWAEV; 1190 mg/m³ STEL</td>
<td>STEV: 2380 mg/m³ STEV</td>
<td>TWA: 500 ppm TWA STEL: 750 ppm STEL</td>
</tr>
</tbody>
</table>

Engineering measures
- Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment
- **Skin protection**: Lightweight protective clothing, Apron, Impervious gloves
- **Eye/face protection**: If splashes are likely to occur, wear Goggles.
- **Respiratory protection**: Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations
- Handle in accordance with good industrial hygiene and safety practice.
- Avoid breathing dust created by cutting, sanding, or grinding.

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<table>
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<tr>
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<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>18°C / 64.0°F</td>
</tr>
<tr>
<td>Boiling range</td>
<td>100°C / 212.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
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<td>Specific Gravity</td>
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<td>Density</td>
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<tr>
<td>Volatile organic compounds (VOC) content</td>
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<td>Volatile by weight</td>
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</tr>
<tr>
<td>Volatile by volume</td>
<td>100.000 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY
10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Chemical stability</th>
<th>Stable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompatible products</td>
<td>Strong oxidizing agents.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Heat, flames and sparks.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>None under normal processing</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>5800 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Irritation | No information available
Corrosivity | No information available
Sensitization | No information available

Chronic toxicity

Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity | No information available
Reproductive effects | No information available
Developmental effects | No information available
Teratogenicity | No information available
Target Organ Effects | Central nervous system, Eyes, Respiratory system, Skin.
Endocrine Disruptor Information | No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>LC50 4.74 - 6.33 mL/L Oncorhynchus mykiss 96 h</td>
<td>LC50 4.74 - 6.33 mL/L Oncorhynchus mykiss 96 h</td>
<td>EC50 = 14500 mg/L 15 min</td>
<td>EC50 10294 - 17704 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td>LC50 6210 - 8120 mg/L Pimephales promelas 96 h</td>
<td>LC50 6210 - 8120 mg/L Pimephales promelas 96 h</td>
<td></td>
<td>EC50 12600 - 12700 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td>LC50 = 8300 mg/L Lepomis macrochirus 96 h</td>
<td>LC50 = 8300 mg/L Lepomis macrochirus 96 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods | Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Contaminated packaging | Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION
14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name
UN1090, ACETONE MIXTURE, 3, PGI, ERG 127, FREEZABLE

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Compliance Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Does not Comply</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

United States of America Federal Regulations

SARA 313

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: no
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B2 Flammable liquid
D2B Toxic materials
16. OTHER INFORMATION

Revision Date 31-Mar-2011
Revision Note No information available
HMIS (Hazardous Material Information System) Health 2 Flammability 3 Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name
THINNER NO 62
Product code
F041-0062
Trade name
THINNER CLEAR
Product Class
PAINT THINNER
Manufacturer
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone
800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

FLAMMABLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

Principle Routes of Exposure
Eye contact, Inhalation, Skin contact.

Acute effects

Eyes
Moderately irritating to the eyes.
Skin
Irritating to skin.
Inhalation
Irritating to respiratory system.
Ingestion
May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions
Central nervous system. Skin disorders. Respiratory disorders.

Interactive effects
Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects
See Section 12 for additional Ecological Information

Target Organ Effects
Central nervous system, Eyes, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td>98-56-6</td>
<td>60 - 100</td>
</tr>
<tr>
<td>tert-BUTYL ACETATE</td>
<td>540-88-5</td>
<td>10 - 30</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Flammable.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters
Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information Not applicable

7. HANDLING AND STORAGE

Handling Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td>TWA: 2.5 mg/m³</td>
<td>TWA: 2.5 mg/m³</td>
<td>TWA: 2.5 mg/m³</td>
<td>TWA: 2.5 mg/m³</td>
<td>TWA: 2.5 mg/m³</td>
</tr>
<tr>
<td>tert-BUTYL ACETATE</td>
<td>200 ppm TWA</td>
<td>200 ppm TWA; 950 mg/m³ TWA</td>
<td>TWA: 200 ppm TWAEV; 950 mg/m³ TWAEV</td>
<td>TWA: 200 ppm TWA</td>
<td>200 ppm TWA; 950 mg/m³ TWA; 250 ppm STEL; 1190 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

<table>
<thead>
<tr>
<th>Protection Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin protection</td>
<td>Lightweight protective clothing, Apron, Impervious gloves</td>
</tr>
<tr>
<td>Eye/face protection</td>
<td>If splashes are likely to occur, wear Goggles. Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>Avoid breathing dust created by cutting, sanding, or grinding.</td>
</tr>
</tbody>
</table>

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>6°C / 42.0°F</td>
</tr>
<tr>
<td>Boiling range</td>
<td>98°C / 208.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.24929 g/cm³</td>
</tr>
<tr>
<td>Density</td>
<td>10.39597 lbs/gal</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>.000 lbs/gal</td>
</tr>
<tr>
<td>Volatile by weight</td>
<td>100.0000 %</td>
</tr>
<tr>
<td>Volatile by volume</td>
<td>100.0000 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>Stable.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Heat, flames and sparks.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>None under normal processing</td>
</tr>
</tbody>
</table>
11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td>13 g/kg (Rat)</td>
<td>2 mg/kg (Rabbit)</td>
<td>33 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>tert-BUTYL ACETATE</td>
<td>4100 mg/kg (Rat)</td>
<td>2 g/kg (Rabbit)</td>
<td>2230 mg/m³ (Rat) 4 h</td>
</tr>
</tbody>
</table>

Irritation                          No information available
Corrosivity                          No information available
Sensitization                        No information available

Chronic toxicity

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity                       No information available
Reproductive effects                No information available
Developmental effects               No information available
Teratogenicity                      No information available
Target Organ Effects                Central nervous system, Eyes, Respiratory system, Skin.
Endocrine Disruptor Information     No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td></td>
<td></td>
<td>EC50 = 11.1 mg/L 5 min EC50 = 13.4 mg/L 15 min EC50 = 14.3 mg/L 30 min</td>
<td>EC50 = 3.68 mg/L 48 h</td>
</tr>
<tr>
<td>tert-BUTYL ACETATE</td>
<td>LC50 296-362 mg/L  Pimephales promelas 96 h</td>
<td></td>
<td>EC50 = 6.38 mg/L 5 min EC50 = 8.04 mg/L 15 min EC50 = 11.1 mg/L 30 min</td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods: Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging: Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT: Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name: UN1263, PAINT RELATED MATERIAL, 3, PGII, ERG 128
15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>International Inventory</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td></td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td></td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td></td>
</tr>
<tr>
<td>CHINA</td>
<td></td>
</tr>
<tr>
<td>ENCS</td>
<td></td>
</tr>
<tr>
<td>KECL</td>
<td></td>
</tr>
<tr>
<td>PICCS</td>
<td></td>
</tr>
<tr>
<td>AICS</td>
<td></td>
</tr>
</tbody>
</table>

United States of America Federal Regulations

SARA 313

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: no
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tert-BUTYL ACETATE</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

CERCLA

United States of America State Regulations

California Prop. 65

This product contains the following Proposition 65 chemicals:

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-CHLOROBENZOTRIFLUORIDE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>tert-BUTYL ACETATE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification

B2  Flammable liquid
D2B  Toxic materials
16. OTHER INFORMATION

Revision Date 31-Mar-2011
Revision Note No information available

HMIS (Hazardous Material Information System) Health 2 Flammability 3 Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name: THINNER NO. 63
Product code: F041-0063
Trade name: THINNER CLEAR
Product Class: PAINT THINNER
Manufacturer: Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone: 800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure: Eye contact, Inhalation, Skin contact.
Acute effects

- Eyes: Moderately irritating to the eyes.
- Skin: Irritating to skin.
- Inhalation: Irritating to respiratory system.
- Ingestion: May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions: Central nervous system. Skin disorders. Respiratory disorders.
Interactive effects: Use of alcoholic beverages may enhance toxic effects.
Potential environmental effects: See Section 12 for additional Ecological Information
Target Organ Effects: Central nervous system, Eyes, Peripheral Nervous System (PNS), Respiratory system, Skin

3. COMPOSITION/INFORMATION ON INGREDIENTS
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEXYL ACETATE</td>
<td>88230-35-7</td>
<td>60 - 100</td>
</tr>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>110-43-0</td>
<td>5 - 10</td>
</tr>
<tr>
<td>DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE</td>
<td>124-17-4</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Combustible material.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information Not applicable

7. HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Close container after each use. Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEXYL ACETATE</td>
<td>TWA: 50 ppm TWA</td>
<td></td>
<td>TWA: 50 ppm TWAEV: 233 mg/m³ TWA</td>
<td>TWA: 50 ppm TWA; 294 mg/m³ TWA</td>
<td>: 50 ppm TWA: 235 mg/m³ TWA : 100 ppm STEL; 465 mg/m³ STEL</td>
</tr>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>50 ppm TWA</td>
<td>100 ppm TWA; 465 mg/m³ TWA</td>
<td>TWA: 50 ppm TWAEV: 233 mg/m³ TWA</td>
<td>TWA: 25 ppm TWA; 115 mg/m³ TWA</td>
<td>: 50 ppm TWA: 235 mg/m³ TWA : 100 ppm STEL; 465 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

| Skin protection       | Lightweight protective clothing, Apron, Impervious gloves |
| Eye/face protection   | Safety glasses with side-shields |
| Respiratory protection| **Use only with adequate ventilation.** Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. |

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>57°C / 134.0°F</td>
</tr>
<tr>
<td>Boiling range</td>
<td>113 - 176°C / 235.0 - 349.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>.87915 g/cm³</td>
</tr>
<tr>
<td>Density</td>
<td>7.31585 lbs/gal</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>6.413 lbs/gal</td>
</tr>
<tr>
<td>Volatile by weight</td>
<td>87.6590 %</td>
</tr>
<tr>
<td>Volatile by volume</td>
<td>88.3522 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Chemical stability Stable.

Conditions to avoid Heat, flames and sparks.


Possibility of hazardous reactions None under normal processing

11. TOXICOLOGICAL INFORMATION
11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (mg/kg - Rat)</th>
<th>LD50 Dermal (µL/kg - Rabbit)</th>
<th>LC50 Inhalation (mg/L - Rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>1670</td>
<td>12600</td>
<td>73.7</td>
</tr>
<tr>
<td>DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE</td>
<td>6500</td>
<td>14500</td>
<td>73.7</td>
</tr>
</tbody>
</table>

Irritation: No information available
Corrosivity: No information available
Sensitization: No information available

Chronic toxicity

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity: No information available
Reproductive effects: No information available
Developmental effects: No information available
Teratogenicity: No information available
Target Organ Effects: Central nervous system, Eyes, Peripheral Nervous System (PNS), Respiratory system, Skin.
Endocrine Disruptor Information: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>LC50 126-137 mg/L Brachydanio rerio 96 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE</td>
<td>LC50 50-70 mg/L Pimephales promelas 96 h</td>
<td></td>
<td></td>
<td>LC50 = 665 mg/L 48 h</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods: Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging: Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT: Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name: PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION
15. REGULATORY INFORMATION

International Inventories

TSCA  Complies
DSL/NDSL  Complies
EINECS/ELINCS  Does not Comply
CHINA  Complies
ENCS  Does not Comply
KECL  Complies
PICCS  Does not Comply
AICS  Does not Comply

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
Component
DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE

United States of America Federal Regulations

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE</td>
<td>124-17-4</td>
<td>1 - 5</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: no
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL N-AMYL KETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other international regulations

Canada
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B3  Combustible liquid
D2B  Toxic materials
16. OTHER INFORMATION

Revision Date 31-Mar-2011
Revision Note No information available

HMIS (Hazardous Material Information System) Health 2 Flammability 2 Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910. To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name
NO. 64 THINNER

Product code
F041-0064

Trade name
THINNER CLEAR

Product Class
PAINT THINNER

Manufacturer
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372

Emergency telephone
800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPORS MAY CAUSE FLASH FIRE. HARMFUL IF INHALED. HARMFUL OR FATAL IF SWALLOWED. MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

Principle Routes of Exposure
Eye contact, Inhalation, Skin contact.

Acute effects
Eyes
Moderately irritating to the eyes.

Skin
Irritating to skin.

Inhalation
Irritating to respiratory system.

Ingestion
May be harmful if swallowed.

Chronic effects
NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions

Interactive effects
Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects
See Section 12 for additional Ecological Information

Target Organ Effects
Blood, Central nervous system, Central Vascular System (CVS), Eyes, Gastrointestinal tract, Liver, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

### Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>67-64-1</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

- **Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes.
- **Skin contact:** Wash off immediately with soap and plenty of water.
- **Ingestion:** If swallowed, do not induce vomiting. Get medical attention immediately.
- **Inhalation:** Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

- **Flammable properties** Extremely flammable.
- **Suitable extinguishing media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
- **Hazardous decomposition products** Oxides of carbon, hydrocarbons.
- **Specific hazards arising from the chemical** Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
- **Protective equipment and precautions for firefighters**
  - Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions** Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
- **Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
- **Methods for cleaning up** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
- **Other information** Not applicable

7. HANDLING AND STORAGE

**Handling**
Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Vapors may ignite explosively. Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

---

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>500 ppm TWA : 750 ppm STEL</td>
<td>750 ppm TWA : 1800 mg/m³ TWA : 2400 mg/m³ STEL</td>
<td>TWA: 500 ppm TWA; 1190 mg/m³ STEL; 1000 ppm STEL; 2380 mg/m³ STEV</td>
<td>TWA: 500 ppm TWA; 2400 mg/m³ TWA; 2400 mg/m³ STEL</td>
<td>1000 ppm TWA; 1260 ppm STEL</td>
</tr>
</tbody>
</table>

#### Engineering measures
Ensure adequate ventilation, especially in confined areas.

#### Personal Protective Equipment

- **Skin protection**: Lightweight protective clothing, Apron, Impervious gloves
- **Eye/face protection**: If splashes are likely to occur, wear Goggles.
- **Respiratory protection**: **Use only with adequate ventilation**. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.
- **General hygiene considerations**: Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

---

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Flash point**: -16°C / 4.0°F
- **Boiling range**: No information available
- **Upper explosion limit**: No information available
- **Lower explosion limit**: No information available
- **Evaporation rate**: No information available
- **Vapor pressure**: No information available
- **Vapor density**: No information available
- **Specific Gravity**: .79192 g/cm³
- **Density**: 6.59000 lbs/gal
- **Volatile organic compounds (VOC) content**: .000 lbs/gal
- **Volatile by weight**: 100.0000 %
- **Volatile by volume**: 100.000 %

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### 10. STABILITY AND REACTIVITY
10. STABILITY AND REACTIVITY

Chemical stability: Stable.

Conditions to avoid: Heat, flames and sparks.

Incompatible products: Strong oxidizing agents.

Possibility of hazardous reactions: None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>5800 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Irritation: No information available

Corrosivity: No information available

Sensitization: No information available

Chronic toxicity

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity: No information available

Reproductive effects: No information available

Developmental effects: No information available

Teratogenicity: No information available

Target Organ Effects: Blood, Central nervous system, Central Vascular System (CVS), Eyes, Gastrointestinal tract, Liver, Respiratory system, Skin.

Endocrine Disruptor Information: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td></td>
<td>LC50 4.74 - 6.33 mL/L Oncorhynchus mykiss 96 h</td>
<td>EC50 = 14500 mg/L 15 min</td>
<td>EC50 10234 - 17704 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50 6210 - 8120 mg/L Pimephales promelas 96 h</td>
<td></td>
<td>EC50 12600 - 12700 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50= 8300 mg/L Lepomis macrochirus 96 h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods: Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging: Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION
14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name
UN1090, ACETONE, 3, PGII, ERG 127

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

United States of America Federal Regulations

SARA 313

SARA 311/312 Hazardous Categorization

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

CERCLA

United States of America State Regulations

California Prop. 65

This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification

B2 Flammable liquid
D2A Very toxic materials

[Chemistry symbol]
16. OTHER INFORMATION

Revision Date 31-Mar-2011

Revision Note No information available

HMIS (Hazardous Material Information System) Health 2 Flammability 3 Reactivity 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Common name</th>
<th>NO. 65 THINNER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>F041-0065</td>
</tr>
<tr>
<td>Trade name</td>
<td>THINNER CLEAR</td>
</tr>
<tr>
<td>Product Class</td>
<td>PAINT THINNER</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372</td>
</tr>
<tr>
<td>Emergency telephone</td>
<td>800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400</td>
</tr>
</tbody>
</table>

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

FLAMMABLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

<table>
<thead>
<tr>
<th>Principle Routes of Exposure</th>
<th>Eye contact, Inhalation, Skin contact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute effects</td>
<td></td>
</tr>
<tr>
<td>Eyes</td>
<td>Moderately irritating to the eyes.</td>
</tr>
<tr>
<td>Skin</td>
<td>Irritating to skin.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Irritating to respiratory system.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.</td>
</tr>
</tbody>
</table>

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions

Central nervous system. Skin disorders. Respiratory disorders.

Interactive effects

Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects

See Section 12 for additional Ecological Information

Target Organ Effects

Central nervous system, Eyes, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>tert-BUTYL ACETATE</td>
<td>540-88-5</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Flammable.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters
Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information Not applicable

7. HANDLING AND STORAGE

Handling Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>tert-BUTYL ACETATE</td>
<td>200 ppm TWA</td>
<td>200 ppm TWA; 950 mg/m³ TWA</td>
<td>TWA: 200 ppm TWAEV; 950 mg/m³ TWAEV</td>
<td>TWA: 200 ppm TWA</td>
<td>TWA: 200 ppm TWA; 950 mg/m³ TWA: 250 ppm STEL; 1190 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

| Skin protection | Lightweight protective clothing, Apron, Impervious gloves |
| Eye/face protection | If splashes are likely to occur, wear Goggles. |
| Respiratory protection | Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. |

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point       16°C / 60.0°F
Boiling range     98°C / 208.0°F
Upper explosion limit No information available
Lower explosion limit No information available
Evaporation rate  No information available
Vapor pressure    No information available
Vapor density     No information available
Specific Gravity  .86282 g/cm³
Density           7.17999 lbs/gal
Volatile organic compounds (VOC) content 0.000 lbs/gal
Volatile by weight 100.0000 %
Volatile by volume 100.0000 %

10. STABILITY AND REACTIVITY


11. TOXICOLOGICAL INFORMATION

Acute toxicity
11. TOXICOLOGICAL INFORMATION

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>tert-BUTYL ACETATE</td>
<td>4100 mg/kg (Rat)</td>
<td>2 g/kg (Rabbit)</td>
<td>2230 mg/m³ (Rat) 4 h</td>
</tr>
</tbody>
</table>

Irritation: No information available
Corrosivity: No information available
Sensitization: No information available

Chronic toxicity
Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.

Mutagenicity: No information available
Reproductive effects: No information available
Developmental effects: No information available
Teratogenicity: No information available
Target Organ Effects: Central nervous system, Eyes, Respiratory system, Skin.
Endocrine Disruptor Information: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>tert-BUTYL ACETATE</td>
<td>LC50 296-362 mg/L Pimephales promelas 96 h</td>
<td>EC50 = 6.38 mg/L 5 min EC50 = 8.04 mg/L 15 min EC50 = 11.1 mg/L 30 min</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods: Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging: Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT: Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name: UN1263, PAINT RELATED MATERIAL, 3, PGII, ERG 128

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
</tbody>
</table>
CHINA Complies
ENCS Complies
KECL Complies
PICCS Complies
AICS Complies

United States of America Federal Regulations

SARA 313

SARA 311/312 Hazardous Categorization

<table>
<thead>
<tr>
<th>Chronic Health Hazard</th>
<th>Acute Health Hazard</th>
<th>Fire Hazard</th>
<th>Sudden Release of Pressure Hazard</th>
<th>Reactive Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>tert-BUTYL ACETATE</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>tert-BUTYL ACETATE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B2 Flammable liquid
D2B Toxic materials

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 31-Mar-2011
End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name
NO. 66 THINNER

Product code
F041-0066

Trade name
THINNER TEXANOL

Product Class
PAINT THINNER

Manufacturer
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372

Emergency telephone
800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

HARMFUL IF INHALED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF SWALLOWED.

Potential health effects

Principle Routes of Exposure
Eye contact, Inhalation, Skin contact.

Acute effects

Eyes
Irritating to eyes.

Skin
Irritating to skin.

Inhalation
Irritating to respiratory system.

Ingestion
May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions
No information available

Interactive effects
No information available

Potential environmental effects
See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
</table>

---
3. COMPOSITION/INFORMATION ON INGREDIENTS

| 2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE | 25265-77-4 | 60 - 100 |

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

Skin contact: Wash off immediately with soap and plenty of water.

Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties No information available.

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

Hazardous decomposition products Oxides of carbon, hydrocarbons.

Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other information Not applicable

7. HANDLING AND STORAGE

Handling Close container after each use. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

| Skin protection | Lightweight protective clothing, Apron, Impervious gloves |
| Eye/face protection | Safety glasses with side-shields |
| Respiratory protection | Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. |

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>120°C / 248.0°F</td>
</tr>
<tr>
<td>Method</td>
<td>Pensky Martens - Closed Cup</td>
</tr>
<tr>
<td>Boiling range</td>
<td>254 - 260°C / 490.0 - 500.0°F</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>.94935 g/cm³</td>
</tr>
<tr>
<td>Density</td>
<td>7.90002 lbs/gal</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>7.900 lbs/gal</td>
</tr>
<tr>
<td>Volatile by weight</td>
<td>100.0000 %</td>
</tr>
<tr>
<td>Volatile by volume</td>
<td>100.0000 %</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>Stable.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Heat, flames and sparks</td>
</tr>
<tr>
<td>Incompatible products</td>
<td>Strong oxidizing agents.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>None under normal processing</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBYRATE</td>
<td>3200 mg/kg (Rat)</td>
<td>15200 mg/kg (Rat)</td>
<td></td>
</tr>
</tbody>
</table>

Irritation
No information available

Corrosivity
No information available

Sensitization
No information available
12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE</td>
<td>EC50 = 18.4 mg/L 72 h</td>
<td>LC50= 30 mg/L Pimephales promelas 96 h</td>
<td></td>
<td>LC50 &gt; 95 mg/L 96 h</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name
PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>TSCA</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

United States of America Federal Regulations

SARA 313

SARA 311/312 Hazardous Categorization
CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

State Right-to-Know
Other international regulations

Canada
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
D2B Toxic materials

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 11-Apr-2011

Revision Note No information available

HMIS (Hazardous Material Information System) Health 1 Flammability 1 Reactivity 0

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name                   NO. 68 THINNER
Product code                  F041-0068
Trade name                    THINNER CLEAR
Product Class                 PAINT THINNER
Manufacturer                  Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone           800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPORS MAY CAUSE FLASH FIRE.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Potential health effects

Principle Routes of Exposure   Eye contact, Inhalation, Skin contact.

Acute effects

Eyes                   Moderately irritating to the eyes.
Skin                   Irritating to skin.
Inhalation             Irritating to respiratory system.
Ingestion              May be harmful if swallowed.

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.


Interactive effects            Use of alcoholic beverages may enhance toxic effects.
Potential environmental effects  See Section 12 for additional Ecological Information
Target Organ Effects            Blood, Central nervous system, Central Vascular System (CVS), Eyes, Gastrointestinal tract, Liver, Respiratory system, Skin
3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ACETATE</td>
<td>79-20-9</td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Extremely flammable.
Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information Not applicable

7. HANDLING AND STORAGE

Handling Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage
Vapors may ignite explosively. Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ACETATE</td>
<td>200 ppm TWA : 250 ppm STEL</td>
<td>200 ppm TWA : 610 mg/m³ TWA : 250 ppm STEL; 760 mg/m³ STEL</td>
<td>TWA: 200 ppm TWAEV; 606 mg/m³ TWAEV STEL: 250 ppm STEV: 757 mg/m³ STEV</td>
<td>TWA: 200 ppm TWA STEL: 250 ppm STEL</td>
<td>: 200 ppm TWA: 610 mg/m³ TWA : 250 ppm STEL; 760 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection
Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection
If splashes are likely to occur, wear Goggles.

Respiratory protection
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point -10°C / 14.0°F
Boiling range No information available
Upper explosion limit No information available
Lower explosion limit No information available
Evaporation rate No information available
Vapor pressure No information available
Vapor density No information available
Specific Gravity .93132 g/cm³
Density 7.75002 lbs/gal
Volatile organic compounds (VOC) content .000 lbs/gal
Volatile by weight 100.0000 %
Volatile by volume 100.0000 %

10. STABILITY AND REACTIVITY

Chemical stability Stable.

Conditions to avoid Heat, flames and sparks.

Incompatible products Strong oxidizing agents.

Possibility of hazardous reactions None under normal processing
11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (mg/kg)</th>
<th>LD50 Dermal (mg/kg)</th>
<th>LC50 Inhalation (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ACETATE</td>
<td>5000 (Rat)</td>
<td>2000 (Rat)</td>
<td>16000 (Rat)</td>
</tr>
<tr>
<td></td>
<td>5000 (Rabbit)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Irritation No information available
Corrosivity No information available
Sensitization No information available

Chronic toxicity

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity No information available
Reproductive effects No information available
Developmental effects No information available
Teratogenicity No information available
Target Organ Effects Blood, Central nervous system, Central Vascular System (CVS), Eyes, Gastrointestinal tract, Liver, Respiratory system, Skin.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ACETATE</td>
<td>EC50 &gt; 120 mg/L 72 h</td>
<td>LC50 250-350 mg/L</td>
<td>EC50 = 6100 mg/L 30 min</td>
<td>EC50 = 1026.7 mg/L 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brachydanio rerio 96 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LC50 295-348 mg/L Primphales promelas 96 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EC50 = 6000 mg/L 16 h</td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name UN1231, METHYL ACETATE, 3, PGII, ERG 129

15. REGULATORY INFORMATION
### 15. REGULATORY INFORMATION

**International Inventories**

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td></td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td></td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td></td>
</tr>
<tr>
<td>CHINA</td>
<td></td>
</tr>
<tr>
<td>ENCS</td>
<td></td>
</tr>
<tr>
<td>KECL</td>
<td></td>
</tr>
<tr>
<td>PICCS</td>
<td></td>
</tr>
<tr>
<td>AICS</td>
<td></td>
</tr>
</tbody>
</table>

**United States of America Federal Regulations**

**SARA 313**

**SARA 311/312 Hazardous Categorization**

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Health Hazard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute Health Hazard</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CERCLA**

**United States of America State Regulations**

**California Prop. 65**

This product contains the following Proposition 65 chemicals:

**State Right-to-Know**

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ACETATE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**Other international regulations**

**Canada**

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**WHMIS Classification**

B2 Flammable liquid

D2A Very toxic materials

**Legend**

NPRI - National Pollutant Release Inventory

---

### 16. OTHER INFORMATION

**Revision Date**

31-Mar-2011
Revision Note
No information available

HMIS (Hazardous Material Information System) Health 1 Flammability 3 Reactivity 0

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name: THINNER NO. 72
Product code: F041-0072
Trade name: THINNER CLEAR
Product Class: PAINT THINNER
Manufacturer: Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone: 800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure: Eye contact, Inhalation, Skin contact.

Acute effects

<table>
<thead>
<tr>
<th>Eye</th>
<th>Moderately irritating to the eyes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>Irritating to skin.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Irritating to respiratory system.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.</td>
</tr>
</tbody>
</table>

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions: No information available
Interactive effects: No information available
Potential environmental effects: See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. COMPOSITION/INFORMATION ON INGREDIENTS

| DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE | 88917-22-0 | 60 - 100 |

4. FIRST AID MEASURES

- **Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes.
- **Skin contact:** Wash off immediately with soap and plenty of water.
- **Ingestion:** If swallowed, do not induce vomiting. Get medical attention immediately.
- **Inhalation:** Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

- **Flammable properties**
  - No information available
- **Suitable extinguishing media**
  - Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
- **Hazardous decomposition products**
  - Oxides of carbon, hydrocarbons.
- **Specific hazards arising from the chemical**
  - Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
- **Protective equipment and precautions for firefighters**
  - Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers.

6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions**
  - Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
- **Environmental precautions**
  - Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
- **Methods for cleaning up**
  - If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
- **Other information**
  - Not applicable

7. HANDLING AND STORAGE

- **Handling**
  - Close container after each use. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
- **Storage**
  - Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWA: 100 ppm TWA; 776 mg/m³ TWA STEL; 150 ppm STEL; 1164 mg/m³ STEL</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection
Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection
Safety glasses with side-shields

Respiratory protection
Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.
Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point
120°C / 248.0°F

Method
Pensky Martens - Closed Cup

Boiling range
No information available

Upper explosion limit
No information available

Lower explosion limit
No information available

Evaporation rate
No information available

Vapor pressure
No information available

Vapor density
No information available

Specific Gravity
.97578 g/cm³

Density
8.11998 lbs/gal

Volatile organic compounds (VOC) content
8.120 lbs/gal

Volatile by weight
100.0000 %

Volatile by volume
100.0000 %

10. STABILITY AND REACTIVITY

Chemical stability
Stable.

Conditions to avoid
Heat, flames and sparks.

Incompatible products
Strong oxidizing agents.

Possibility of hazardous reactions
None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

Irritation
No information available

Corrosivity
No information available
11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Sensitization</th>
<th>No information available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic toxicity</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>The table below indicates whether each agency has listed any ingredient as a carcinogen</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No information available</td>
</tr>
<tr>
<td>Reproductive effects</td>
<td>No information available</td>
</tr>
<tr>
<td>Developmental effects</td>
<td>No information available</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>No information available</td>
</tr>
<tr>
<td>Target Organ Effects</td>
<td>No information available</td>
</tr>
<tr>
<td>Endocrine Disruptor Information</td>
<td>No information available</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Ecotoxicity

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT
Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name
PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>TSCA</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>CHINA</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Does not Comply</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

United States of America Federal Regulations

SARA 313

SARA 311/312 Hazardous Categorization
Chronic Health Hazard  no  
Acute Health Hazard  no  
Fire Hazard  yes  
Sudden Release of Pressure Hazard  no  
Reactive Hazard  no  

**CERCLA**

United States of America State Regulations

California Prop. 65

This product contains the following Proposition 65 chemicals:

State Right-to-Know

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**WHMIS Classification**

D2B  Toxic materials

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**Legend**

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date  11-Apr-2011

Revision Note  No information available

HMIS (Hazardous Material Information System)   Health 1  Flammability 1  Reactivity 0

Disclaimer

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. PRODUCT AND COMPANY IDENTIFICATION

Common name THINNER NO. 73
Product code F041-0073
Trade name THINNER CLEAR
Product Class PAINT THINNER
Manufacturer Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone 800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure Eye contact, Inhalation, Skin contact.

Acute effects

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyes</td>
<td>Moderately irritating to the eyes.</td>
</tr>
<tr>
<td>Skin</td>
<td>Irritating to skin.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Irritating to respiratory system.</td>
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<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.</td>
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</tbody>
</table>

Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available
Interactive effects No information available
Potential environmental effects See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
</table>

Material Safety Data Sheet

Print Date 31-Mar-2011
Revision Date 31-Mar-2011
Revision Number 1
3. COMPOSITION/INFORMATION ON INGREDIENTS

| ETHYL 3-ETHOXYPROPIONATE | 763-69-9 | 60 - 100 |

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.
Skin contact: Wash off immediately with soap and plenty of water.
Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties: Combustible material.
Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical
Hazardous decomposition products: Oxides of carbon, hydrocarbons.
Specific hazards arising from the chemical: Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters: Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up: If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Other information: Not applicable

7. HANDLING AND STORAGE

Handling: Close container after each use. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.
Storage: Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Quebec TWAEV</th>
<th>Ontario TWAEV</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL 3-ETHOXYPROPIONATE</td>
<td></td>
<td></td>
<td></td>
<td>TWA: 50 ppm TWA;</td>
<td>300 mg/m³ TWA</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

- **Skin protection**: Lightweight protective clothing, Apron, Impervious gloves
- **Eye/face protection**: Safety glasses with side-shields
- **Respiratory protection**: Use only with adequate ventilation. Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.
- **General hygiene considerations**: Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

- **Flash point**: 61°C / 142.0°F
- **Method**: Pensky Martens - Closed Cup
- **Boiling range**: 164 - 165°C / 328.0 - 329.0°F
- **Upper explosion limit**: No information available
- **Lower explosion limit**: No information available
- **Evaporation rate**: No information available
- **Vapor pressure**: No information available
- **Vapor density**: No information available
- **Specific Gravity**: 0.95055 g/cm³
- **Density**: 7.91002 lbs/gal
- **Volatile organic compounds (VOC) content**: 7.910 lbs/gal
- **Volatile by weight**: 100.000 %
- **Volatile by volume**: 100.000 %

10. STABILITY AND REACTIVITY

- **Chemical stability**: Stable.
- **Conditions to avoid**: Heat, flames and sparks.
- **Incompatible products**: Strong oxidizing agents.
- **Possibility of hazardous reactions**: None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL 3-ETHOXYPROPIONATE</td>
<td>3200 mg/kg (Rat)</td>
<td>10 mL/kg (Rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Irritation
No information available
Corrosivity | No information available
Sensitization | No information available

Chronic toxicity
Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a carcinogen

Mutagenicity | No information available
Reproductive effects | No information available
Developmental effects | No information available
Teratogenicity | No information available
Target Organ Effects | No information available
Endocrine Disruptor Information | No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to microorganisms</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL 3-ETHOXYPROPIONATE</td>
<td>LC50= 62 mg/L Pimephales promelas 96 h</td>
<td>EC50 = 970 mg/L 48 h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste disposal methods | Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
Contaminated packaging | Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT | Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.
Proper shipping name | PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories

TSCA | Complies
DSL/NDSL | Complies
EINECS/ELINCS | Complies
CHINA | Complies
ENCS | Complies
KECL | Complies
PICCS | Complies
AICS | Complies

United States of America Federal Regulations

SARA 313
SARA 311/312 Hazardous Categorization

- Chronic Health Hazard: no
- Acute Health Hazard: yes
- Fire Hazard: yes
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

State Right-to-Know

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification

- B3  Combustible liquid
- D2B  Toxic materials

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 31-Mar-2011
Revision Note No information available

HMIS (Hazardous Material Information System) Health 2 Flammability 2 Reactivity 1

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For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

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End of MSDS