

Material Safety Data Sheet

Print Date 05-May-2011

Revision Date 05-May-2011

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|----------------------------|---|
| Common name | SERIES N140 PART A |
| Product code | N140-11WHA |
| Trade name | POTA-POX PLUS WHITE |
| Product Class | POLYAMINE AMIDO AMINE PAINT |
| 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.
CAUSES SKIN AND EYE BURNS.
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 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

Causes burns.

Skin

Causes burns. May cause sensitization by skin contact.

Inhalation

Irritating to respiratory system. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs.

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. Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure).

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions

Central nervous system. Skin disorders. Gastrointestinal tract. Kidney disorders. 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

Central nervous system, Central Vascular System (CVS), Eyes, Lungs, Respiratory system, Skin, Blood, Gastrointestinal tract, Kidney, Liver

3. COMPOSITION/INFORMATION ON INGREDIENTS**Hazardous Components**

| Component | CAS-No | Weight % |
|-------------------------------|------------|----------|
| TALC (RESPIRABLE DUST) | 14807-96-6 | 10 - 30 |
| TITANIUM DIOXIDE (TOTAL DUST) | 13463-67-7 | 10 - 30 |
| CRYSTALLINE SILICA (QUARTZ) | 14808-60-7 | 10 - 30 |
| XYLENE | 1330-20-7 | 10 - 30 |
| BENZYL ALCOHOL | 100-51-6 | 5 - 10 |
| N-BUTANOL (SKIN) | 71-36-3 | 1 - 5 |
| ETHYL BENZENE | 100-41-4 | 1 - 5 |
| ISOPHORONE DIAMINE | 2855-13-2 | 1 - 5 |
| AMORPHOUS SILICA | 7631-86-9 | 1 - 5 |
| ALUMINUM OXIDES | 1344-28-1 | 1 - 5 |

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. Oxides of nitrogen. Aldehydes. |

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

| Component | ACGIH TLV | OSHA PEL | Quebec TWAEV | Ontario TWAEV | Mexico OEL (TWA) |
|-------------------------------|--|---|---|--|---|
| TALC (RESPIRABLE DUST) | : 2 mg/m ³ TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction) | : 2 mg/m ³ TWA (<1% Crystalline silica, containing no Asbestos, respirable dust) | TWA: 3 mg/m ³ TWAEV (respirable dust) | TWA: 2 mg/m ³ TWA (containing no Asbestos and <1% Crystalline silica, respirable) | : 2 mg/m ³ TWA (respirable fraction) |
| TITANIUM DIOXIDE (TOTAL DUST) | : 10 mg/m ³ TWA | : 10 mg/m ³ TWA (total dust) : 15 mg/m ³ TWA (total dust) | TWA: 10 mg/m ³ TWAEV (total dust, containing no asbestos and less than 1% crystalline silica) | TWA: 10 mg/m ³ TWA (total dust) | : 10 mg/m ³ TWA (as Ti) : 20 mg/m ³ STEL (as Ti) |
| CRYSTALLINE SILICA (QUARTZ) | : 0.025 mg/m ³ TWA (respirable fraction) | : 0.1 mg/m ³ TWA (respirable dust) | TWA: 0.1 mg/m ³ TWAEV (respirable dust) | TWA: 0.10 mg/m ³ TWA (designated substance regulation, respirable) | : 0.1 mg/m ³ TWA (respirable fraction) |
| XYLENE | : 100 ppm TWA : 150 ppm STEL | : 100 ppm TWA; 435 mg/m ³ TWA : 150 ppm STEL; 655 mg/m ³ STEL | TWA: 100 ppm TWAEV; 434 mg/m ³ TWAEV STEL: 150 ppm STEV; 651 mg/m ³ STEV | TWA: 100 ppm TWA STEL: 150 ppm STEL | : 100 ppm TWA; 435 mg/m ³ TWA : 150 ppm STEL; 655 mg/m ³ STEL |
| N-BUTANOL (SKIN) | : 20 ppm TWA | Skin : 50 ppm Ceiling; 150 mg/m ³ Ceiling : 100 ppm TWA; 300 mg/m ³ TWA | Ceiling: 50 ppm Ceiling; 152 mg/m ³ Ceiling Skin | TWA: 20 ppm TWA | : 50 ppm Peak; 150 mg/m ³ Peak |
| ETHYL BENZENE | : 100 ppm TWA : 125 ppm STEL | : 100 ppm TWA; 435 mg/m ³ TWA : 125 ppm STEL; 545 mg/m ³ STEL | TWA: 100 ppm TWAEV; 434 mg/m ³ TWAEV STEL: 125 ppm STEV; 543 mg/m ³ STEV | TWA: 100 ppm TWA STEL: 125 ppm STEL | : 100 ppm TWA; 435 mg/m ³ TWA : 125 ppm STEL; 545 mg/m ³ STEL |
| ALUMINUM OXIDES | TWA: 1 mg/m ³ | : 10 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) : 15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) | TWA: 10 mg/m ³ TWAEV (total dust, containing no asbestos and less than 1% crystalline silica, as Al) | TWA: 10 mg/m ³ | : 10 mg/m ³ TWA |

Engineering measures

Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment**Skin protection**

Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection

Goggles. If splashes are likely to occur, wear face-shield.

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 | 26°C / 78.0°F |
| Boiling range | 116 - 142°C / 241.0 - 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 | 1.64582 g/cm ³ |
| Density | 13.69567 lbs/gal |
| Volatile organic compounds (VOC) content | 2.636 lbs/gal |
| Volatile by weight | 19.2490 % |
| Volatile by volume | 36.8285 % |

10. STABILITY AND REACTIVITY

| | | | |
|------------------------------|---|---|--|
| Chemical stability | Stable. | Conditions to avoid | Heat, flames and sparks. Epoxy constituents. |
| Incompatible products | Strong oxidizing agents. Bases. Acids. Cleaning solutions such as Chromerge and Aqua Regia. | Possibility of hazardous reactions | None under normal processing |

11. TOXICOLOGICAL INFORMATION

Acute toxicity**Component Information**

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------------------|---------------------|------------------------|---|
| TITANIUM DIOXIDE (TOTAL DUST) | 10000 mg/kg (Rat) | | |
| CRYSTALLINE SILICA (QUARTZ) | 500 mg/kg (Rat) | | |
| XYLENE | 4300 mg/kg (Rat) | 1700 mg/kg (Rabbit) | 5000 ppm (Rat) 4 h 47635 mg/L (Rat) 4 h |
| BENZYL ALCOHOL | 1230 mg/kg (Rat) | 2000 mg/kg (Rabbit) | 8.8 mg/L (Rat) 4 h |
| N-BUTANOL (SKIN) | 790 mg/kg (Rat) | 3400 mg/kg (Rabbit) | 8000 ppm (Rat) 4 h 17.7 mg/L (Rat) 4 h |
| ETHYL BENZENE | 3500 mg/kg (Rat) | 15354 mg/kg (Rabbit) | 17.2 mg/L (Rat) 4 h |
| ISOPHORONE DIAMINE | 1030 mg/kg (Rat) | | |
| AMORPHOUS SILICA | 5000 mg/kg (Rat) | 2000 mg/kg (Rabbit) | 2.2 mg/L (Rat) 1 h |
| ALUMINUM OXIDES | 5000 mg/kg (Rat) | | |

| | |
|----------------------|--------------------------|
| 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

| Component | ACGIH | IARC | NTP | OSHA | Mexico |
|-------------------------------|-------|----------|-------|------|--------|
| TITANIUM DIOXIDE (TOTAL DUST) | | Group 2B | | X | |
| CRYSTALLINE SILICA (QUARTZ) | A2 | Group 1 | Known | X | |
| ETHYL BENZENE | A3 | Group 2B | | X | |

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Component | Toxicity to algae | Toxicity to fish | Toxicity to microorganisms | Toxicity to daphnia |
|------------------------|---|---|--|--|
| TALC (RESPIRABLE DUST) | | LC50> 100 g/L Brachydanio rerio 96 h | | |
| XYLENE | | 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> 780 mg/L Cyprinus carpio 96 h LC50 30.26-40.75 mg/L Poecilia reticulata 96 h | EC50 = 0.0084 mg/L 24 h | EC50 = 3.82 mg/L 48 h LC50 = 0.6 mg/L 48 h |
| BENZYL ALCOHOL | EC50 = 35 mg/L 3 h | LC50= 10 mg/L Lepomis macrochirus 96 h LC50= 460 mg/L Pimephales promelas 96 h | EC50 = 63.7 mg/L 5 min EC50 = 63.7 mg/L 15 min EC50 = 71.4 mg/L 30 min EC50 = 50 mg/L 5 min | EC50 = 23 mg/L 48 h |
| N-BUTANOL (SKIN) | EC50 > 500 mg/L 96 h EC50 > 500 mg/L 72 h | 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 | 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 | EC50 1897 - 2072 mg/L 48 h EC50 = 1983 mg/L 48 h |

| Component | Toxicity to algae | Toxicity to fish | Toxicity to microorganisms | Toxicity to daphnia |
|--------------------|--|--|---|--|
| ETHYL BENZENE | EC50 = 4.6 mg/L 72 h EC50 > 438 mg/L 96 h EC50 2.6 - 11.3 mg/L 72 h EC50 1.7 - 7.6 mg/L 96 h | 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 | EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h | EC50 1.8 - 2.4 mg/L 48 h |
| ISOPHORONE DIAMINE | EC50 = 37 mg/L 72 h | LC50= 110 mg/L Leuciscus idus 96 h | | EC50 14.6 - 21.5 mg/L 48 h EC50 = 42 mg/L 24 h |
| AMORPHOUS SILICA | EC50 = 440 mg/L 72 h | LC50= 5000 mg/L Brachydanio rerio 96 h | | EC50 = 7600 mg/L 48 h |

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, 3, PGIII, ERG 128

15. REGULATORY INFORMATION

International Inventories

| | |
|---------------|-----------------|
| TSCA | Complies |
| DSL/NDSL | Does not Comply |
| EINECS/ELINCS | Complies |
| CHINA | Complies |
| ENCS | 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
XYLENE
ETHYL BENZENE

United States of America Federal Regulations

SARA 313

| Component | CAS-No | Weight % | SARA 313 - Threshold Values |
|-----------|-----------|----------|--------------------------------|
| XYLENE | 1330-20-7 | 10 - 30 | 1.0 % de minimis concentration |

| | | | |
|------------------|-----------|-------|--|
| N-BUTANOL (SKIN) | 71-36-3 | 1 - 5 | 1.0 % de minimis concentration |
| ETHYL BENZENE | 100-41-4 | 1 - 5 | 0.1 % de minimis concentration |
| ALUMINUM OXIDES | 1344-28-1 | 1 - 5 | 1.0 % de minimis concentration (fibrous forms) |

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 | X |

CERCLA**United States of America State Regulations****California Prop. 65**

This product contains the following Proposition 65 chemicals:

| Component | CAS-No | California Prop. 65 |
|-----------------------------|------------|---------------------|
| CRYSTALLINE SILICA (QUARTZ) | 14808-60-7 | Carcinogen |
| ETHYL BENZENE | 100-41-4 | Carcinogen |

State Right-to-Know

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------------------|---------------|------------|--------------|----------|--------------|
| TALC (RESPIRABLE DUST) | X | X | X | | X |
| TITANIUM DIOXIDE (TOTAL DUST) | X | X | X | | X |
| CRYSTALLINE SILICA (QUARTZ) | X | X | X | | X |
| XYLENE | X | X | X | X | X |
| BENZYL ALCOHOL | X | | X | | |
| N-BUTANOL (SKIN) | X | X | X | | X |
| ETHYL BENZENE | X | X | X | X | X |
| ISOPHORONE DIAMINE | | X | | | |
| AMORPHOUS SILICA | X | | X | | |
| ALUMINUM OXIDES | X | X | X | | X |

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
E Corrosive material



| Component | NPRI |
|------------------|---|
| XYLENE | Part 1, Group 1 Substance; Part 5 Substance |
| N-BUTANOL (SKIN) | Part 1, Group 1 Substance |
| ETHYL BENZENE | Part 1, Group 1 Substance |
| ALUMINUM OXIDES | Part 1, Group 1 Substance (fibrous form) |

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 05-May-2011

Revision Note No information available

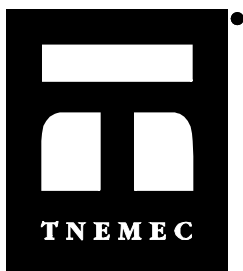
HMIS (Hazardous Material Information System) Health 2* Flammability 3 Reactivity 1

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 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



Material Safety Data Sheet

Print Date 05-May-2011

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Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|----------------------------|---|
| Common name | SERIES N140 PART B |
| Product code | N140-0140B |
| Trade name | POTA-POX PLUS |
| Product Class | EPOXY PAINT |
| 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.
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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. May cause sensitization by skin contact. |
| Inhalation | Irritating to respiratory system. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs. |
| 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. Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure).

See Section 11 for additional Toxicological information.

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

3. COMPOSITION/INFORMATION ON INGREDIENTS**Hazardous Components**

| Component | CAS-No | Weight % |
|------------------------------|------------|----------|
| TALC (RESPIRABLE DUST) | 14807-96-6 | 30 - 60 |
| EPOXY RESIN (LER) | 25085-99-8 | 10 - 30 |
| EPOXY RESIN (LER) | 67924-34-9 | 10 - 30 |
| XYLENE | 1330-20-7 | 5 - 10 |
| CRYSTALLINE SILICA (QUARTZ) | 14808-60-7 | 5 - 10 |
| METHYL ISOBUTYL KETONE | 108-10-1 | 1 - 5 |
| AROMATIC HYDROCARBON MIXTURE | 64742-95-6 | 1 - 5 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 | 1 - 5 |
| 1,3,5-TRIMETHYLBENZENE | 108-67-8 | 0.1 - 1 |
| ETHYL BENZENE | 100-41-4 | 0.1 - 1 |

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. Aldehydes. |

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

| Component | ACGIH TLV | OSHA PEL | Quebec TWAEV | Ontario TWAEV | Mexico OEL (TWA) |
|--------------------------------|---|--|--|---|---|
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| XYLENE | : 100 ppm TWA : 150 ppm STEL | : 100 ppm TWA; 435 mg/m ³ TWA : 150 ppm STEL; 655 mg/m ³ STEL | TWA: 100 ppm TWAEV; 434 mg/m ³ TWAEV STEL: 150 ppm STEV; 651 mg/m ³ STEV | TWA: 100 ppm TWA STEL: 150 ppm STEL | : 100 ppm TWA; 435 mg/m ³ TWA : 150 ppm STEL; 655 mg/m ³ STEL |
| CRYSTALLINE SILICA (QUARTZ) | : 0.025 mg/m ³ TWA (respirable fraction) | : 0.1 mg/m ³ TWA (respirable dust) | TWA: 0.1 mg/m ³ TWAEV (respirable dust) | TWA: 0.10 mg/m ³ TWA (designated substance regulation, respirable) | : 0.1 mg/m ³ TWA (respirable fraction) |
| METHYL ISOBUTYL KETONE | : 20 ppm TWA : 75 ppm STEL | : 50 ppm TWA; 205 mg/m ³ TWA : 75 ppm STEL; 300 mg/m ³ STEL : 100 ppm TWA; 410 mg/m ³ TWA | TWA: 50 ppm TWAEV; 205 mg/m ³ TWAEV STEL: 75 ppm STEV; 307 mg/m ³ STEV | TWA: 50 ppm TWA STEL: 75 ppm STEL | : 50 ppm TWA; 205 mg/m ³ TWA : 75 ppm STEL; 307 mg/m ³ STEL |
| 1,2,4-TRIMETHYLBENZENE | TWA: 25 ppm | | TWA: 25 ppm TWA: 123 mg/m ³ | TWA: 25 ppm TWA: 123 mg/m ³ | TWA: 125 mg/m ³ TWA: 25 ppm STEL: 170 mg/m ³ STEL: 35 ppm |
| 1,3,5-TRIMETHYLBENZENE | TWA: 25 ppm | | TWA: 25 ppm TWA: 123 mg/m ³ | TWA: 25 ppm TWA: 123 mg/m ³ | TWA: 125 mg/m ³ TWA: 25 ppm STEL: 170 mg/m ³ STEL: 35 ppm |
| ETHYL BENZENE | : 100 ppm TWA : 125 ppm STEL | : 100 ppm TWA; 435 mg/m ³ TWA : 125 ppm STEL; 545 mg/m ³ STEL | TWA: 100 ppm TWAEV; 434 mg/m ³ TWAEV STEL: 125 ppm STEV; 543 mg/m ³ STEV | TWA: 100 ppm TWA STEL: 125 ppm STEL | : 100 ppm TWA; 435 mg/m ³ TWA : 125 ppm STEL; 545 mg/m ³ STEL |

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 | 27°C / 80.0°F |
| Boiling range | 114 - 142°C / 237.0 - 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 | 1.39796 g/cm ³ |
| Density | 11.63312 lbs/gal |
| Volatile organic compounds (VOC) content | 2.120 lbs/gal |
| Volatile by weight | 18.2190 % |
| Volatile by volume | 29.8580 % |

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Acute toxicity**Component Information**

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|------------------------------|--------------------|------------------------|---|
| XYLENE | 4300 mg/kg (Rat) | 1700 mg/kg (Rabbit) | 5000 ppm (Rat) 4 h 47635 mg/L (Rat) 4 h |
| CRYSTALLINE SILICA (QUARTZ) | 500 mg/kg (Rat) | | |
| METHYL ISOBUTYL KETONE | 2080 mg/kg (Rat) | 16000 mg/kg (Rabbit) | 8.2 mg/L (Rat) 4 h |
| AROMATIC HYDROCARBON MIXTURE | 8400 mg/kg (Rat) | 2000 mg/kg (Rabbit) | 3400 ppm (Rat) 4 h 5.2 mg/L (Rat) 4 h |
| 1,2,4-TRIMETHYLBENZENE | 3400 mg/kg (Rat) | 3160 mg/kg (Rabbit) | 18 g/m ³ (Rat) 4 h |
| 1,3,5-TRIMETHYLBENZENE | 5000 mg/kg (Rat) | | 24 g/m ³ (Rat) 4 h |
| ETHYL BENZENE | 3500 mg/kg (Rat) | 15354 mg/kg (Rabbit) | 17.2 mg/L (Rat) 4 h |

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

| Component | ACGIH | IARC | NTP | OSHA | Mexico |
|-----------------------------|-------|----------|-------|------|--------|
| CRYSTALLINE SILICA (QUARTZ) | A2 | Group 1 | Known | X | |
| METHYL ISOBUTYL KETONE | A3 | | | | |
| ETHYL BENZENE | A3 | Group 2B | | X | |

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, Kidney, Liver, Lungs, Respiratory system, Skin, Gastrointestinal tract.

Endocrine Disruptor Information

No information available

| Component | EU - Endocrine Disruptors Candidate List | EU - Endocrine Disruptors - Evaluated Substances | Japan - Endocrine Disruptor Information |
|-------------------|--|--|---|
| EPOXY RESIN (LER) | Group III Chemical | | |

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Component | Toxicity to algae | Toxicity to fish | Toxicity to microorganisms | Toxicity to daphnia |
|------------------------------|----------------------|---|----------------------------|--|
| TALC (RESPIRABLE DUST) | | LC50> 100 g/L Brachydanio rerio 96 h | | |
| XYLENE | | 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> 780 mg/L Cyprinus carpio 96 h LC50 30.26-40.75 mg/L Poecilia reticulata 96 h | EC50 = 0.0084 mg/L 24 h | EC50 = 3.82 mg/L 48 h LC50 = 0.6 mg/L 48 h |
| METHYL ISOBUTYL KETONE | EC50 = 400 mg/L 96 h | LC50 496-514 mg/L Pimephales promelas 96 h | EC50 = 79.6 mg/L 5 min | EC50 = 170 mg/L 48 h |
| AROMATIC HYDROCARBON MIXTURE | | LC50= 9.22 mg/L Oncorhynchus mykiss 96 h | | EC50 = 6.14 mg/L 48 h |
| 1,2,4-TRIMETHYLBENZENE | | LC50 7.19-8.28 mg/L Pimephales promelas 96 h LC50= 7.72 mg/L Pimephales promelas 96 h | | EC50 = 6.14 mg/L 48 h |
| 1,3,5-TRIMETHYLBENZENE | | LC50= 3.48 mg/L Pimephales promelas 96 h LC50= 7.72 mg/L Pimephales promelas 96 h | | EC50 = 50 mg/L 24 h |

| Component | Toxicity to algae | Toxicity to fish | Toxicity to microorganisms | Toxicity to daphnia |
|---------------|--|---|--|--------------------------|
| ETHYL BENZENE | EC50 = 4.6 mg/L 72 h EC50 > 438 mg/L 96 h EC50 2.6 - 11.3 mg/L 72 h EC50 1.7 - 7.6 mg/L 96 h | 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 | EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h | EC50 1.8 - 2.4 mg/L 48 h |

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,3,PGIII,ERG 128

15. REGULATORY INFORMATION

International Inventories

| | |
|---------------|-----------------|
| TSCA | Complies |
| DSL/NDL | Complies |
| EINECS/ELINCS | Does not Comply |
| CHINA | Complies |
| ENCS | Does not Comply |
| KECL | Complies |
| PICCS | Complies |
| 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
XYLENE
METHYL ISOBUTYL KETONE
ETHYL BENZENE

United States of America Federal Regulations

SARA 313

| Component | CAS-No | Weight % | SARA 313 - Threshold Values |
|------------------------|-----------|----------|--------------------------------|
| XYLENE | 1330-20-7 | 5 - 10 | 1.0 % de minimis concentration |
| METHYL ISOBUTYL KETONE | 108-10-1 | 1 - 5 | 1.0 % de minimis concentration |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 | 1 - 5 | 1.0 % de minimis concentration |

| | | | |
|---------------|----------|---------|--------------------------------|
| ETHYL BENZENE | 100-41-4 | 0.1 - 1 | 0.1 % de minimis concentration |
|---------------|----------|---------|--------------------------------|

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 | X |

CERCLA**United States of America State Regulations****California Prop. 65**

This product contains the following Proposition 65 chemicals:

| Component | CAS-No | California Prop. 65 |
|-----------------------------|------------|---------------------|
| CRYSTALLINE SILICA (QUARTZ) | 14808-60-7 | Carcinogen |
| ETHYL BENZENE | 100-41-4 | Carcinogen |

State Right-to-Know

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-----------------------------|---------------|------------|--------------|----------|--------------|
| TALC (RESPIRABLE DUST) | X | X | X | | X |
| XYLENE | X | X | X | X | X |
| CRYSTALLINE SILICA (QUARTZ) | X | X | X | | X |
| METHYL ISOBUTYL KETONE | X | X | X | X | X |
| 1,2,4-TRIMETHYLBENZENE | X | X | X | X | X |
| 1,3,5-TRIMETHYLBENZENE | X | X | X | X | X |
| ETHYL BENZENE | X | X | X | X | X |

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 ISOBUTYL KETONE | Part 1, Group 1 Substance; Part 5 Substance |
| AROMATIC HYDROCARBON MIXTURE | Part 5 Substance |

| | |
|------------------------|---|
| 1,2,4-TRIMETHYLBENZENE | 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** 05-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 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