

Material Safety Data Sheet

Print Date 22-Apr-2013

Revision Date 02-Jan-2013

Revision Number 4

1. PRODUCT AND COMPANY IDENTIFICATION

Common name	SERIES 120 / SERIES 251 PART A
Product code	F120-5002A
Trade name	VINESTER (KIT) BEIGE
Product Class	VINYL ESTER 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 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. 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. 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, Kidney, Liver, Lungs, Reproductive System, Respiratory system, Skin

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Component	CAS-No	Weight %
SILICON DIOXIDE/ALUMINUM OXIDE	66402-68-4	10 - 30
STYRENE	100-42-5	10 - 30
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	5 - 10
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	1 - 5
2-BUTANONE	-	1 - 5
METHYLBENZENE	-	1 - 5
ETHYL BENZENE	100-41-4	0.1 - 1
ALUMINUM HYDROXIDE	21645-51-2	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.

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)
SILICON DIOXIDE/ALUMINUM OXIDE	TWA: 5 mg/m ³ TWA: 0.02 mg/m ³ TWA: 0.1 mg/m ³		TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 5 mg/m ³ TWA: 0.2 mg/m ³ STEL: 10 mg/m ³	TWA: 5 mg/m ³ TWA: 0.2 mg/m ³ STEL: 10 mg/m ³
STYRENE	TWA: 20 ppm STEL: 40 ppm	TWA: 50 ppm TWA: 215 mg/m ³ STEL: 100 ppm STEL: 425 mg/m ³ TWA: 100 ppm Ceiling: 200 ppm	TWA: 50 ppm TWA: 213 mg/m ³ STEL: 100 ppm STEL: 426 mg/m ³ Skin	TWA: 35 ppm STEL: 100 ppm	TWA: 50 ppm TWA: 215 mg/m ³ STEL: 100 ppm STEL: 425 mg/m ³
CRYSTALLINE SILICA (QUARTZ)	TWA: 0.025 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.10 mg/m ³	TWA: 0.1 mg/m ³
TITANIUM DIOXIDE (TOTAL DUST)	TWA: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 15 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³
2-BUTANONE	TWA: 200 ppm STEL: 300 ppm	TWA: 200 ppm TWA: 590 mg/m ³ STEL: 300 ppm STEL: 885 mg/m ³	TWA: 50 ppm TWA: 150 mg/m ³ STEL: 100 ppm STEL: 300 mg/m ³	TWA: 200 ppm STEL: 300 ppm	TWA: 200 ppm TWA: 590 mg/m ³ STEL: 300 ppm STEL: 885 mg/m ³
METHYLBENZENE	TWA: 20 ppm	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³ TWA: 200 ppm Ceiling: 300 ppm	TWA: 50 ppm TWA: 188 mg/m ³ Skin	TWA: 20 ppm	TWA: 50 ppm TWA: 188 mg/m ³
ETHYL BENZENE	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 125 ppm STEL: 543 mg/m ³	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³
ALUMINUM HYDROXIDE	TWA: 1 mg/m ³			TWA: 1 mg/m ³	

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 21 °C / 70.0 °F
Boiling range 78 - 146.000 °C / 172.0 - 295.0 °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 1.29194 g/cm3
Density 10.75092 lbs/gal
Volatile organic compounds (VOC) content .581 lbs/gal
Volatile by weight 5.3680 %
Volatile by volume 8.2008 %

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
STYRENE	1000 mg/kg (Rat)		11.8 mg/L (Rat) 4 h
CRYSTALLINE SILICA (QUARTZ)	500 mg/kg (Rat)		
TITANIUM DIOXIDE (TOTAL DUST)	10000 mg/kg (Rat)		
2-BUTANONE			23500 mg/m ³ (Rat) 8 h
METHYLBENZENE	636 mg/kg (Rat)	8390 mg/kg (Rabbit)	12.5 mg/L (Rat) 4 h 26700 ppm (Rat) 1 h
ETHYL BENZENE	3500 mg/kg (Rat)	15354 mg/kg (Rabbit)	17.2 mg/L (Rat) 4 h
ALUMINUM HYDROXIDE	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
STYRENE		Group 2B	Reasonably Anticipated	X	

CRYSTALLINE SILICA (QUARTZ)	A2	Group 1	Known	X	
TITANIUM DIOXIDE (TOTAL DUST)		Group 2B		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, Eyes, Kidney, Liver, Lungs, Reproductive System, Respiratory system, Skin.

Endocrine Disruptor Information No information available

Component	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
STYRENE 100-42-5 (10 - 30)	Group I Chemical	High Exposure Concern	

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
STYRENE	EC50 = 1.4 mg/L 72 h EC50 = 0.72 mg/L 96 h EC50 0.46 - 4.3 mg/L 72 h EC50 0.15 - 3.2 mg/L 96 h	LC50 19.03 - 33.53 mg/L Lepomis macrochirus 96 h LC50 3.24 - 4.99 mg/L Pimephales promelas 96 h LC50 58.75 - 95.32 mg/L Poecilia reticulata 96 h LC50 6.75 - 14.5 mg/L Pimephales promelas 96 h	EC50 = 5.4 mg/L 5 min	EC50 3.3 - 7.4 mg/L 48 h
2-BUTANONE		LC50 3130 - 3320 mg/L Pimephales promelas 96 h	EC50 = 3426 mg/L 5 min EC50 = 3403 mg/L 30 min	EC50 4025 - 6440 mg/L 48 h EC50 = 5091 mg/L 48 h EC50 > 520 mg/L 48 h
METHYLBENZENE	EC50 > 433 mg/L 96 h EC50 = 12.5 mg/L 72 h	LC50 11.0 - 15.0 mg/L Lepomis macrochirus 96 h LC50 14.1 - 17.16 mg/L Oncorhynchus mykiss 96 h LC50 15.22 - 19.05 mg/L Pimephales promelas 96 h LC50 5.89 - 7.81 mg/L Oncorhynchus mykiss 96 h LC50 50.87 - 70.34 mg/L Poecilia reticulata 96 h LC50= 12.6 mg/L Pimephales promelas 96 h LC50= 28.2 mg/L Poecilia reticulata 96 h LC50= 5.8 mg/L Oncorhynchus mykiss 96 h LC50= 54 mg/L Oryzias latipes 96 h	EC50 = 19.7 mg/L 30 min	EC50 5.46 - 9.83 mg/L 48 h EC50 = 11.5 mg/L 48 h

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 7.55 - 11 mg/L Pimephales promelas 96 h LC50 9.1 - 15.6 mg/L Pimephales promelas 96 h LC50= 32 mg/L Lepomis macrochirus 96 h LC50= 4.2 mg/L Oncorhynchus mykiss 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
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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	Does not Comply
EINECS/ELINCS	Does not Comply
CHINA	Complies
ENCS	Does not Comply
KECL	Does not Comply
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 HAPS Data

STYRENE
METHYLBENZENE
ETHYL BENZENE

United States of America Federal Regulations

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values
SILICON DIOXIDE/ALUMINUM OXIDE	66402-68-4	10 - 30	1.0
STYRENE	100-42-5	10 - 30	0.1
2-BUTANONE		1 - 5	1.0
METHYLBENZENE		1 - 5	1.0
ETHYL BENZENE	100-41-4	0.1 - 1	0.1

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
SILICON DIOXIDE/ALUMINUM OXIDE 66402-68-4 (10 - 30)		X		
STYRENE 100-42-5 (10 - 30)	1000 lb			X
METHYLBENZENE (1 - 5)	1000 lb	X	X	X
ETHYL BENZENE 100-41-4 (0.1 - 1)	1000 lb	X	X	X

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
STYRENE	1000 lb	
2-BUTANONE	5000 lb	
METHYLBENZENE	1000 lb 1 lb	
ETHYL BENZENE	1000 lb	

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
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	Carcinogen
METHYLBENZENE		Developmental Female Reproductive
ETHYL BENZENE	100-41-4	Carcinogen

California SCAQMD Rule 443

Contains Photochemically Reactive Solvent

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
SILICON DIOXIDE/ALUMINUM OXIDE		X	X		
STYRENE	X	X	X	X	
CRYSTALLINE SILICA (QUARTZ)	X	X	X	X	
TITANIUM DIOXIDE (TOTAL DUST)	X	X	X		
2-BUTANONE	X	X	X	X	
METHYLBENZENE	X	X	X	X	
ETHYL BENZENE	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
STYRENE	Part 1, Group 1 Substance; Part 5 Substance
2-BUTANONE	Part 1, Group 1 Substance; Part 5 Substance
METHYLBENZENE	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-Jan-2013

Revision Note No information available

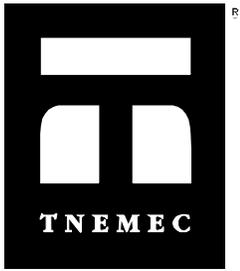
HMIS (Hazardous Material Information System) Health 2* Flammability 3 Reactivity 1

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

Print Date 22-Apr-2013

Revision Date 02-Jan-2013

Revision Number 3

1. PRODUCT AND COMPANY IDENTIFICATION

Common name SERIES 120 / SERIES 251 PART B
Product code F120-0120B
Trade name VINESTER (KIT) CONVERTER
Product Class ORGANIC PEROXIDE CATALYST

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

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

COMBUSTIBLE LIQUID AND VAPOR
CAUSES SKIN AND EYE BURNS
HARMFUL OR FATAL IF SWALLOWED
HARMFUL IF INHALED
MAY CAUSE ALLERGIC SKIN REACTION; EFFECTS MAY BE PERMANENT
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 Causes burns.
Skin Causes burns. May cause sensitization by skin contact.
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 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

Component	CAS-No	Weight %
CUMENE HYDROPEROXIDE	80-15-9	60 - 100
CUMYL ALCOHOL	617-94-7	5 - 10
(1-METHYLETHYL)BENZENE	-	5 - 10
ACETOPHENONE	98-86-2	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 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

Component	ACGIH TLV	OSHA PEL	Quebec TWAEV	Ontario TWAEV	Mexico OEL (TWA)
(1-METHYLETHYL)BENZENE	TWA: 50 ppm	TWA: 50 ppm TWA: 245 mg/m ³ Skin	TWA: 50 ppm TWA: 246 mg/m ³	TWA: 50 ppm	TWA: 50 ppm TWA: 245 mg/m ³ STEL: 75 ppm STEL: 365 mg/m ³
ACETOPHENONE	TWA: 10 ppm		TWA: 10 ppm TWA: 49 mg/m ³	TWA: 10 ppm	

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 56 °C / 133.0 °F
Boiling range 152 - 153.000 °C / 305.0 - 307.0 °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 1.03331 g/cm³
Density 8.59867 lbs/gal
Volatile organic compounds (VOC) content 1.075 lbs/gal
Volatile by weight 12.5000 %
Volatile by volume 12.3023 %

10. STABILITY AND REACTIVITY

Chemical stability Stable. **Conditions to avoid** Heat, flames and sparks.

Incompatible products Strong oxidizing agents. Acids. **Possibility of hazardous reactions** None under normal processing
Alkalines.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
CUMENE HYDROPEROXIDE	382 mg/kg (Rat)	500 mg/kg (Rat)	220 ppm (Rat) 4 h
(1-METHYLETHYL)BENZENE	1400 mg/kg (Rat)	12300 µL/kg (Rabbit)	
ACETOPHENONE		1760 mg/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.

Component	ACGIH	IARC	NTP	OSHA	Mexico
(1-METHYLETHYL)BENZENE		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, Eyes, Respiratory system, Skin.
Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
CUMENE HYDROPEROXIDE		LC50= 3.9 mg/L Oncorhynchus mykiss 96 h		EC50 = 7 mg/L 24 h
(1-METHYLETHYL)BENZENE	EC50 = 2.6 mg/L 72 h	LC50 6.04 - 6.61 mg/L Pimephales promelas 96 h LC50= 2.7 mg/L Oncorhynchus mykiss 96 h LC50= 4.8 mg/L Oncorhynchus mykiss 96 h LC50= 5.1 mg/L Poecilia reticulata 96 h	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	EC50 7.9 - 14.1 mg/L 48 h EC50 = 0.6 mg/L 48 h
ACETOPHENONE		LC50= 155 mg/L Pimephales promelas 96 h LC50= 162 mg/L Pimephales promelas 96 h	EC50 = 15.5 mg/L 15 min	

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 UN3109,ORGANIC PEROXIDE,TYPE F,LIQUID,(CUMYL HYDROPEROXIDE <90%),5.2(8),PGII, ERG 145

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	HAPS Data
(1-METHYLETHYL)BENZENE	
ACETOPHENONE	

United States of America Federal Regulations

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values
CUMENE HYDROPEROXIDE	80-15-9	60 - 100	1.0
(1-METHYLETHYL)BENZENE		5 - 10	1.0
ACETOPHENONE	98-86-2	1 - 5	1.0

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

Component	Hazardous Substances RQs	CERCLA EHS RQs
CUMENE HYDROPEROXIDE	10 lb	
(1-METHYLETHYL)BENZENE	5000 lb	

ACETOPHENONE	5000 lb	
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United States of America State Regulations

California Prop. 65

This product contains the following Proposition 65 chemicals:

Component	CAS-No	California Prop. 65
(1-METHYLETHYL)BENZENE		Carcinogen

California SCAQMD Rule 443

Contains Photochemically Reactive Solvent

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
CUMENE HYDROPEROXIDE	X	X	X		
(1-METHYLETHYL)BENZENE	X	X	X	X	
ACETOPHENONE	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

- B3 Combustible liquid
- C Oxidizing materials
- D2B Toxic materials
- E Corrosive material



Component	NPRI
CUMENE HYDROPEROXIDE	Part 1, Group 1 Substance
(1-METHYLETHYL)BENZENE	Part 1, Group 1 Substance
ACETOPHENONE	Part 1, Group 1 Substance

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 02-Jan-2013

Revision Note No information available

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

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