



Material Safety Data Sheet

Print Date 02-May-2011

Revision Date 02-May-2011

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Common name	SERIES 120 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) - TNE MEC 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 %
STYRENE	100-42-5	10 - 30
SILICON DIOXIDE/ALUMINUM OXIDE	66402-68-4	10 - 30
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	5 - 10
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	1 - 5
METHYL ETHYL KETONE	78-93-3	1 - 5
AMORPHOUS SILICA	7631-86-9	1 - 5
TOLUENE	108-88-3	1 - 5
XYLENE	1330-20-7	0.1 - 1
ALUMINUM OXIDES	1344-28-1	0.1 - 1
IRON OXIDE FUME	1309-37-1	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 (CO ₂) - 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)
STYRENE	: 20 ppm TWA : 40 ppm STEL	: 50 ppm TWA; 215 mg/m ³ TWA : 100 ppm STEL; 425 mg/m ³ STEL : 100 ppm TWA : 200 ppm Ceiling	TWA: 50 ppm TWAEV; 213 mg/m ³ TWAEV STEL: 100 ppm STEV; 426 mg/m ³ STEV Skin	TWA: 35 ppm TWA STEL: 100 ppm STEL	: 50 ppm TWA; 215 mg/m ³ TWA : 100 ppm STEL; 425 mg/m ³ STEL
SILICON DIOXIDE/ALUMINUM OXIDE	: 5 mg/m ³ TWA (as Zr) : 0.2 mg/m ³ TWA (as Mn)		TWA: 5 mg/m ³ TWAEV (as Zr) STEL: 10 mg/m ³ STEV (as Zr)	TWA: 5 mg/m ³ TWA (as Zr) TWA: 0.5 fibre/cm ³ TWA (length>5 microns, aspect ratio>= 3.1, respirable) TWA: 0.2 mg/m ³ TWA (as Mn) STEL: 10 mg/m ³ STEL (as Zr)	: 5 mg/m ³ TWA (as Zr) : 0.2 mg/m ³ TWA (as Mn) : 10 mg/m ³ STEL (as Zr)
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)
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)
METHYL ETHYL KETONE	: 200 ppm TWA : 300 ppm STEL	: 200 ppm TWA; 590 mg/m ³ TWA : 300 ppm STEL; 885 mg/m ³ STEL	TWA: 50 ppm TWAEV; 150 mg/m ³ TWAEV STEL: 100 ppm STEV; 300 mg/m ³ STEV	TWA: 200 ppm TWA STEL: 300 ppm STEL	: 200 ppm TWA; 590 mg/m ³ TWA : 300 ppm STEL; 885 mg/m ³ STEL
TOLUENE	: 20 ppm TWA	: 100 ppm TWA; 375 mg/m ³ TWA : 150 ppm STEL; 560 mg/m ³ STEL : 200 ppm TWA : 300 ppm Ceiling	TWA: 50 ppm TWAEV; 188 mg/m ³ TWAEV Skin	TWA: 20 ppm TWA	: 50 ppm TWA; 188 mg/m ³ TWA
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

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
IRON OXIDE FUME	: 5 mg/m ³ TWA (respirable fraction)	: 10 mg/m ³ TWA (fume)	TWA: 5 mg/m ³ TWAEV (dust and fume, as Fe)	TWA: 5 mg/m ³ TWA (respirable)	: 5 mg/m ³ TWA : 10 mg/m ³ STEL (as Fe)
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	21°C / 70.0°F
Boiling range	78 - 146°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	1.29975 g/cm ³
Density	10.81589 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.	Conditions to avoid	Heat, flames and sparks.
Incompatible products	Strong oxidizing agents. Acids.	Possibility of hazardous reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

11. TOXICOLOGICAL 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)		
METHYL ETHYL KETONE	2737 mg/kg (Rat)	6480 mg/kg (Rabbit)	
AMORPHOUS SILICA	5000 mg/kg (Rat)	2000 mg/kg (Rabbit)	2.2 mg/L (Rat) 1 h
TOLUENE	636 mg/kg (Rat)	8390 mg/kg (Rabbit) 12124 mg/kg (Rat)	12.5 mg/L (Rat) 4 h 26700 ppm (Rat) 1 h
XYLENE	4300 mg/kg (Rat)	1700 mg/kg (Rabbit)	5000 ppm (Rat) 4 h 47635 mg/L (Rat) 4 h
ALUMINUM OXIDES	5000 mg/kg (Rat)		
IRON OXIDE FUME	10000 mg/kg (Rat)		
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
STYRENE		Group 2B		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	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
METHYL ETHYL KETONE		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

Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
AMORPHOUS SILICA	EC50 = 440 mg/L 72 h	LC50= 5000 mg/L Brachydanio rerio 96 h		EC50 = 7600 mg/L 48 h
TOLUENE	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
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
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/NDSL	Complies
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
 STYRENE
 TOLUENE
 XYLENE
 ETHYL BENZENE

United States of America Federal Regulations

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values
STYRENE	100-42-5	10 - 30	0.1 % de minimis concentration
SILICON DIOXIDE/ALUMINUM OXIDE	66402-68-4	10 - 30	1.0 % de minimis concentration (does not include Barium sulfate CAS 7727-43-7, Chemical Category N040) 1.0 % de minimis concentration (Chemical Category N982)
METHYL ETHYL KETONE	78-93-3	1 - 5	1.0
TOLUENE	108-88-3	1 - 5	1.0 % de minimis concentration
XYLENE	1330-20-7	0.1 - 1	1.0 % de minimis concentration
ALUMINUM OXIDES	1344-28-1	0.1 - 1	1.0 % de minimis concentration (fibrous forms)
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
STYRENE	1000 lb RQ			X
SILICON DIOXIDE/ALUMINUM OXIDE		X		
TOLUENE	1000 lb RQ	X	X	X
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
TOLUENE	108-88-3	Developmental Female Reproductive
ETHYL BENZENE	100-41-4	Carcinogen

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
STYRENE	X	X	X	X	X
SILICON DIOXIDE/ALUMINUM OXIDE		X	X		X
CRYSTALLINE SILICA (QUARTZ)	X	X	X		X
TITANIUM DIOXIDE (TOTAL DUST)	X	X	X		X
METHYL ETHYL KETONE	X	X	X	X	X
AMORPHOUS SILICA	X		X		
TOLUENE	X	X	X	X	X
XYLENE	X	X	X	X	X
ALUMINUM OXIDES	X	X	X		X
IRON OXIDE FUME	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
STYRENE	Part 1, Group 1 Substance; Part 5 Substance
METHYL ETHYL KETONE	Part 1, Group 1 Substance; Part 5 Substance
TOLUENE	Part 1, Group 1 Substance; Part 5 Substance
XYLENE	Part 1, Group 1 Substance; Part 5 Substance
ALUMINUM OXIDES	Part 1, Group 1 Substance (fibrous form)
ETHYL BENZENE	Part 1, Group 1 Substance

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

16. OTHER INFORMATION

Revision Date 02-May-2011

Revision Note No information available

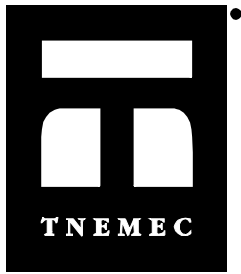
HMIS (Hazardous Material Information System) Health 2* Flammability 3 Reactivity 1

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

Print Date 12-Apr-2011

Revision Date 12-Apr-2011

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Common name SERIES 120 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.
HARMFUL IF INHALED.
CAUSES SKIN AND EYE BURNS.
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 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
CUMENE	98-82-8	5 - 10
CUMYL ALCOHOL	617-94-7	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 (CO ₂) - 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)
CUMENE	: 50 ppm TWA	: 50 ppm TWA; 245 mg/m ³ TWA Skin	TWA: 50 ppm TWAEV; 246 mg/m ³ TWAEV	TWA: 50 ppm TWA	: 50 ppm TWA; 245 mg/m ³ TWA : 75 ppm STEL; 365 mg/m ³ STEL
ACETOPHENONE	: 10 ppm TWA		TWA: 10 ppm TWAEV; 49 mg/m ³ TWAEV	TWA: 10 ppm 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	56°C / 133.0°F
Boiling range	152 - 153°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/cm ³
Density	8.59867 lbs/gal
Volatile organic compounds (VOC) content	1.264 lbs/gal
Volatile by weight	14.7000 %
Volatile by volume	15.0098 %

10. STABILITY AND REACTIVITY

10. STABILITY AND REACTIVITY

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

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
CUMENE	1400 mg/kg (Rat)	3160 mg/kg (Rabbit)	39000 mg/m ³ (Rat) 4 h
CUMYL ALCOHOL	1300 mg/kg (Rat)	4300 mg/kg (Rabbit)	
ACETOPHENONE	815 mg/kg (Rat)	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

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
CUMENE	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

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
 CUMENE
 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 % de minimis concentration
CUMENE	98-82-8	5 - 10	1.0 % de minimis concentration
ACETOPHENONE	98-86-2	1 - 5	1.0 % de minimis concentration

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:

Component	CAS-No	California Prop. 65
CUMENE	98-82-8	Carcinogen

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
CUMENE HYDROPEROXIDE	X	X	X		X
CUMENE	X	X	X	X	X
ACETOPHENONE	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

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



Component	NPRI
CUMENE HYDROPEROXIDE	Part 1, Group 1 Substance
CUMENE	Part 1, Group 1 Substance
ACETOPHENONE	Part 1, Group 1 Substance

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 12-Apr-2011

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

