

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the GHS guidelines & India Hazardous substances (Classification, Labeling & Packaging) Draft Rules 2011.

SECTION 1: Identification

1.1. Product identifier

Protective Chemical PM-3870

Product Identification Numbers

UU-0109-6242-9 UU-0109-6243-7 UU-0109-6244-5

1.2. Recommended use and restrictions on use

Recommended use

Coating.

1.3. Supplier's details

Address: 3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100

Telephone: 080-45543000, contact Product EHS team

E Mail: productehs.in@mmm.com
Website: http://solutions.3mindia.co.in

1.4. Emergency telephone number

080-45543000 (Contact hours: 8:00 AM to 5:00 PM)

SECTION 2: Hazard identification

Under MSIHC Rules, information is noted below on flammability, acute toxicity and explosivity relevant to this product. In line with international standards, information on other hazard classes and associated precautionary statements relevant to this product are included as well.

2.1. Classification of the substance or mixture

Skin Corrosion/Irritation: Category 2.

Specific Target Organ Toxicity (single exposure): Category 1.

Chronic Aquatic Toxicity: Category 3.

2.2. Label elements

Signal Word

Danger

Symbols

Exclamation mark | Health Hazard |

Pictograms



HAZARD STATEMENTS:

H315 Causes skin irritation.

H370 Causes damage to organs: cardiovascular system | kidney/urinary tract | nervous

system | respiratory system.

H412 Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Response:

P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor/physician.

P321 Specific treatment (see Notes to Physician on this label).

Notes to Physician:

This product contains ethylene glycol. If there is reasonable suspicion of ethylene glycol poisoning, intravenous (IV) administration with either fomepizole (preferred) or ethanol (if fomepizole is unavailable) should be considered as part of the medical management

2.3. Other hazards

Eye damage/irritation class. not applied based on test data This material has been tested for eye damage/irritation and the test results do not meet the criteria for classification. Skin corrosion/irritation class. based on test data This material has been tested for skin corrosion/irritation and the test results are reflected in the assigned classification. Skin sensitization class. not applied based on test data This material has been tested for skin sensitization and the test results do not meet the criteria for classification. Acute aquatic env. toxicity class. based on test data This material has been tested for acute aquatic environmental toxicity and the test results are reflected in the assigned classification.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Wt	
Water	7732-18-5	60 - 70	
Hydrocarbon Urethane Polymer	Trade Secret	20 - 25	
Ethylene glycol	107-21-1	< 10	
Poly(oxy-1,2-ethanediyl), .alpha[3,5-	60828-78-6	< 1.2	
dimethyl-1-(2-			
methylpropyl)hexyl]omegahydroxy-			
2-Octyl-3(2H)-Isothiazolone	26530-20-1	< 0.02	_

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact

If exposed, flush eyes with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms develop, get medical attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Target organ effects. See Section 11 for additional details.

4.3. Indication of any immediate medical attention and special treatment required

This product contains ethylene glycol. Effects of oral ethylene glycol poisoning can be divided into three stages which generally occur over a time-course of hours to days following ingestion: Stage 1 (neurological effects), stage 2 (cardiopulmonary effects) and stage 3 (renal effects). If ethylene glycol poisoning is confirmed, intravenous (IV) administration of ethanol should be considered. Additional pharmacologic and supportive care should be based on the treating physician's judgement.

SECTION 5: Fire-fighting measures

5.1. Suitable Extinguishing media

Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance	<u>Condition</u>
Aldehydes.	During combustion.
Amine compounds.	During combustion.
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Ketones.	During combustion.
Oxides of nitrogen.	During combustion.
Oxides of sulphur.	During combustion.

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use PPE - Exposure Assessment Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS. Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment.

7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from acids. Store away from strong bases.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Ethylene glycol	107-21-1	ACGIH	TWA(Vapor fraction):25	A4: Not class. as human
			ppm;STEL(Vapor fraction):50	carcin
			ppm;STEL(Inhalable	
			aerosol):10 mg/m3	

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

None required.

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Emulsion
Specific I hysical Form.	Emulsion
Color	Milky White
Odor	Typical Odor
Odour threshold	No data available.
pH	5 - 8
Melting point/Freezing point: NA	-8 °C [Test Method:Estimated]
Boiling point/Initial boiling point/Boiling range	100 °C
Flash point	No flash point [Test Method:Closed Cup]
Evaporation rate	1 [Ref Std:WATER=1]
Flammability	Not applicable.
	1
Flammable Limits(LEL)	Not applicable.
Flammable Limits(UEL)	Not applicable.
Vapour pressure	2,338.5 Pa [@ 20 °C]
Relative Vapor Density	0.62 [<i>Ref Std</i> :AIR=1]
Density	1.02 kg/l [@ 20 °C]
Relative density	1.02 [Ref Std:WATER=1]
Water solubility	Miscible
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Autoignition temperature	No data available.
Decomposition temperature	220 °C
Kinematic Viscosity	7.8 mm ² /sec
Volatile organic compounds (VOC)	No data available.
Percent volatile	24 - 26 %
VOC less H2O & exempt solvents	No data available.
Molecular weight	Not applicable.
	I .

Particle Characteristics No.	lot applicable.
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SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability

Protective Chemical PM-3870

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

Temperatures above the boiling point.

10.5 Incompatible materials

Strong acids.

Strong bases.

10.6 Hazardous decomposition products

<u>Substance</u> Hydrocarbons. Toxic Vapor/Gas Condition

During Storage During Storage

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin contact

Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.

Eve contact

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Cardiac effects: Signs/symptoms may include irregular heartbeat (arrhythmia), changes in heart rate, damage to heart muscle, heart attack, and may be fatal. Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate,

bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure. Kidney/Bladder effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Hydrocarbon Urethane Polymer	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
Hydrocarbon Urethane Polymer	Ingestion	Rat	LD50 > 2,000 mg/kg
Ethylene glycol	Ingestion	Human	LD50 1,600 mg/kg
Ethylene glycol	Inhalation- Dust/Mist (4 hours)	Other	LC50 estimated to be 5 - 12.5 mg/l
Ethylene glycol	Dermal	Rabbit	9,530 mg/kg
Poly(oxy-1,2-ethanediyl), .alpha[3,5-dimethyl-1-(2-methylpropyl)hexyl]omegahydroxy-	Dermal	similar compoun ds	LD50 > 4,000 mg/kg
Poly(oxy-1,2-ethanediyl), .alpha[3,5-dimethyl-1-(2-methylpropyl)hexyl]omegahydroxy-	Ingestion	similar compoun ds	LD50 > 3,000 mg/kg
2-Octyl-3(2H)-Isothiazolone	Dermal	Rabbit	LD50 311 mg/kg
2-Octyl-3(2H)-Isothiazolone	Inhalation- Dust/Mist (4 hours)	Rat	LC50 0.27 mg/l
2-Octyl-3(2H)-Isothiazolone	Ingestion	Rat	LD50 125 mg/kg

 \overline{ATE} = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Overall product	In vitro	Irritant
	data	
Hydrocarbon Urethane Polymer	In vitro	No significant irritation
	data	
Ethylene glycol	Rabbit	Minimal irritation
Poly(oxy-1,2-ethanediyl), .alpha[3,5-dimethyl-1-(2-	Rabbit	Irritant
methylpropyl)hexyl]omegahydroxy-		
2-Octyl-3(2H)-Isothiazolone	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Overall product	In vitro data	No significant irritation
Hydrocarbon Urethane Polymer	In vitro data	No significant irritation
Ethylene glycol	Rabbit	Mild irritant
Poly(oxy-1,2-ethanediyl), .alpha[3,5-dimethyl-1-(2-methylpropyl)hexyl]omegahydroxy-	Rabbit	Corrosive
2-Octyl-3(2H)-Isothiazolone	similar health hazards	Corrosive

Sensitization:

Skin Sensitisation

Name	Species	Value
Overall product	Mouse	Not classified
Hydrocarbon Urethane Polymer	Mouse	Not classified
Ethylene glycol	Human	Not classified
2-Octyl-3(2H)-Isothiazolone	Human	Sensitising
	and	
	animal	

Respiratory Sensitisation

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Ethylene glycol	In Vitro	Not mutagenic
Ethylene glycol	In vivo	Not mutagenic
2-Octyl-3(2H)-Isothiazolone	In Vitro	Not mutagenic
2-Octyl-3(2H)-Isothiazolone	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Ethylene glycol	Ingestion	Multiple	Not carcinogenic
		animal	
		species	

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Ethylene glycol	Dermal	Not classified for development	Mouse	NOAEL 3,549 mg/kg/day	during organogenesis
Ethylene glycol	Ingestion	Not classified for development	Mouse	LOAEL 750 mg/kg/day	during organogenesis
Ethylene glycol	Inhalation	Not classified for development	Mouse	NOAEL 1,000 mg/kg/day	during organogenesis
2-Octyl-3(2H)-Isothiazolone	Ingestion	Not classified for development	Rabbit	NOEL 20 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Ethylene glycol	Ingestion	heart nervous system kidney and/or bladder respiratory system	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
Ethylene glycol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Ethylene glycol	Ingestion	liver	Not classified	Human	NOAEL Not available	poisoning and/or abuse
Poly(oxy-1,2- ethanediyl), .alpha[3,5- dimethyl-1-(2- methylpropyl)hexyl]omeg ahydroxy-	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

2-Octyl-3(2H)-	Inhalation	respiratory irritation	May cause respiratory irritation	Rat	NOAEL Not	
Isothiazolone					available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration	
Hydrocarbon Urethane Polymer	Inhalation	immune system respiratory system	Not classified	Rat	NOAEL 0.114 mg/l	28 days	
Hydrocarbon Urethane Polymer	Inhalation	heart skin endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system liver muscles nervous system eyes kidney and/or bladder vascular system	Not classified	Rat	NOAEL 0.427 mg/l	28 days	
Ethylene glycol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 200 mg/kg/day	2 years	
Ethylene glycol	Ingestion	vascular system	Not classified	Rat	NOAEL 200 mg/kg/day	2 years	
Ethylene glycol	Ingestion	heart hematopoietic system liver immune system muscles	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years	
Ethylene glycol	Ingestion	respiratory system	Not classified	Mouse	NOAEL 12,000 mg/kg/day	2 years	
Ethylene glycol	Ingestion	skin endocrine system bone, teeth, nails, and/or hair nervous system eyes	Not classified	Multiple animal species	NOAEL 1,000 mg/kg/day	2 years	

Aspiration Hazard

For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

GHS Chronic 3: Harmful to aquatic life with long lasting effects.

Material	Organism	Type	Exposure	Test endpoint	Test result
Protective Chemical PM-3870	Water flea	Experimental	48 hours	EC50	>100 mg/l
Protective Chemical PM-3870	Rainbow trout	Experimental	96 hours	LC50	>100 mg/l
Protective Chemical PM-3870	Green algae	Experimental	72 hours	ErC50	>100 mg/l
Protective Chemical PM-3870	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Ethylene glycol	107-21-1	Green algae	Experimental	72 hours	NOEC	1,000 mg/l
Ethylene glycol	107-21-1	Water flea	Experimental	21 days	NOEC	100 mg/l
2-Octyl-3(2H)- Isothiazolone	26530-20-1	Diatom	Experimental	72 hours	NOEC	0.00068 mg/l
2-Octyl-3(2H)- Isothiazolone	26530-20-1	Green algae	Experimental	72 hours	NOEC	0.0156 mg/l
2-Octyl-3(2H)- Isothiazolone	26530-20-1	Water flea	Experimental	21 days	NOEC	0.0016 mg/l
2-Octyl-3(2H)- Isothiazolone	26530-20-1	Bobwhite quail	Experimental	14 days	LD50	384 ppm diet
2-Octyl-3(2H)- Isothiazolone	26530-20-1	Lettuce	Experimental	17 days	EC50	45 mg/kg (Dry Weight)
2-Octyl-3(2H)- Isothiazolone	26530-20-1	Redworm	Experimental	14 days	LC50	866 mg/kg (Dry Weight)
2-Octyl-3(2H)- Isothiazolone	26530-20-1	Soil microbes	Experimental	28 days	EC50	84.1 mg/kg (Dry Weight)

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Ethylene glycol	107-21-1	Experimental Biodegradation	14 days	BOD	90 %BOD/ThOD	OECD 301C - MITI test (I)
Poly(oxy-1,2- ethanediyl), .alpha. -[3,5-dimethyl-1- (2- methylpropyl)hexyl]omegahydroxy-		Experimental Biodegradation	28 days	BOD	15 %BOD/ThOD	OECD 301D - Closed bottle test
2-Octyl-3(2H)- Isothiazolone	26530-20-1	Experimental Biodegradation	28 days	BOD	< 10 %BOD/ThOD	OECD 301D - Closed bottle test
2-Octyl-3(2H)- Isothiazolone	26530-20-1	Experimental Aquatic Inherent Biodegrad.	59 days	Dissolv. Organic Carbon Deplet	88 %removal of DOC	OECD 303A - Simulated Aerobic

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Ethylene glycol	107-21-1	Experimental Bioconcentration		Log Kow	-1.36	
Poly(oxy-1,2- ethanediyl), .alpha. -[3,5-dimethyl-1- (2- methylpropyl)hexyl]omegahydroxy-	1	Analogous Compound Bioconcentration		Log Kow	3.65	
2-Octyl-3(2H)-	26530-20-1	Experimental		Log Kow	2.92	OECD 117 log Kow HPLC

Protective Chemical PM-3870

Isothiazolone	Bioco	oncentration		method

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other Adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

Not hazardous for transportation.

Air Transport (IATA)Regulations

UN No Not applicable

Proper Shipping Name Not applicable Hazard Classs/Division Not applicable

Subsidiary Risk Not applicable **Packing Group:** Not applicable

Marine Transport (IMDG)

UN No Not applicable

Proper Shipping Name Not applicable Hazard Classs/Division Not applicable Subsidiary Risk Not applicable

Packing Group: Not applicable

Environmental Hazards: Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status

Contact 3M for more information. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Applicable Environmental, Health and Safety Regulations

The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 Hazardous Waste(Management, Handling & Transboundary) Rules, 2008 Hazardous Chemicals (Classification, Packaging and Labelling Draft Rules), 2011

The following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules

Ethylene glycol

The following ingredients are classified as hazardous based on the criteria listed under Part I of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules:

The product is classified as Non-Hazardous as per MSIHC Rules, 1989.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 1 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision information:

Section 1: Product name information was modified.

Section 02: GHS Precautionary - Notes to Physician information was added.

Section 2: Hazard - Other information was modified.

Label: GHS Classification information was modified.

Label: GHS Environmental Hazard Statements information was added.

Label: GHS Precautionary - Prevention information was deleted.

Label: GHS Precautionary - Response information was modified.

Label: GHS Target Organ Hazard Statement information was modified.

Label: Signal Word information was modified.

Label: Symbol information was modified.

Section 04: First Aid - Symptoms and Effects (GHS) information was added.

Section 4: First aid for eye contact information information was modified.

Section 04: Information on toxicological effects information was deleted.

Section 6: Accidental release clean-up information information was modified.

Section 6: Accidental release personal information information was modified.

Section 7: Conditions safe storage information was modified.

Section 8: Occupational exposure limit table information was modified.

Section 8: Skin protection - recommended gloves information information was modified.

Section 8: Skin protection - recommended gloves text information was added.

Section 8: Skin protection - recommended gloves text information was deleted.

Section 9: Flammability (solid, gas) information information was deleted.

Section 09: Flammability information information was added.

Section 09: Kinematic Viscosity information information was added.

Section 09: Nanoparticle information was deleted.

Section 09: Particle Characteristics N/A information was added.

Section 09: Vapor Density Value information was modified.

Section 09: Viscosity information was deleted.

Section 09: VOC Less H2O & Exempt Solvents information was modified.

Section 09: Volatile Organic Compounds information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Germ Cell Mutagenicity Table information was modified.

Section 11: Reproductive Toxicity Table information was modified.

Section 11: Serious Eye Damage/Irritation Table information was modified.

Section 11: Skin Corrosion/Irritation Table information was modified.

Section 11: Skin Sensitization Table information was modified.

Section 11: Target Organs - Repeated Table information was modified.

Section 11: Target Organs - Single Table information was modified.

Section 12: Chronic aquatic hazard information information was modified.

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- Section 12: Component ecotoxicity information information was modified.
- Section 12: Material ecotoxicity information information was modified.
- Section 12: Persistence and Degradability information information was modified.
- Section 12:Bioccumulative potential information information was modified.
- Section 15: Regulations Inventories information was modified.

DISCLAIMER: The information in this Safety Data Sheet (SDS) is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this SDS or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own evaluation to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into India, you are responsible to comply with all applicable regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration/notification.

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