

# SAFETY DATA SHEET

The information in this Safety Data Sheet is required pursuant to GHS UN rev. 7

Date of issue/Date of revision 29 May 2024

Version 11

## Section 1. Identification

**Product code** : 00243506  
**Product name** : SIGMACOVER 456 KRA HARDENER  
**Product type** : Liquid.  
**Other means of identification**  
Not available.

### Relevant identified uses of the substance or mixture and uses advised against

**Product use** : Coating.  
Professional applications, Used by spraying.

**Uses advised against** : Product is not intended, labelled or packaged for consumer use.

**Supplier's information** : PPG Asian Paints Private Limited  
6A Shanti Nagar  
Santa Cruz (East)  
Mumbai - 400055  
India

**Emergency telephone number:** : +91 22 6815 8700

## Section 2. Hazards identification

**Classification of the substance or mixture** :  FLAMMABLE LIQUIDS - Category 3  
ACUTE TOXICITY (oral) - Category 5  
ACUTE TOXICITY (dermal) - Category 5  
ACUTE TOXICITY (inhalation) - Category 4  
SKIN CORROSION/IRRITATION - Category 1C  
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1  
SKIN SENSITISATION - Category 1  
CARCINOGENICITY - Category 1B  
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3  
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3  
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2  
 Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 18.4%  
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 30%  
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 59.8%  
 Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 19.5%

### GHS label elements

## Section 2. Hazards identification

**Hazard pictograms****Signal word**

: Danger

**Hazard statements**

Flammable liquid and vapour.  
May be harmful if swallowed or in contact with skin.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
Harmful if inhaled.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
May cause cancer.  
Harmful to aquatic life.  
Toxic to aquatic life with long lasting effects.

**Precautionary statements****Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapour. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

**Response**

Collect spillage. IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

**Storage**

: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

**Disposal**

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Other hazards which do not result in classification**

: Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.

## Section 3. Composition/information on ingredients

**Substance/mixture**

: Mixture

**CAS number/other identifiers****CAS number**

: Not applicable.

## Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	10 - <20	68082-29-1
xylene	10 - <20	1330-20-7
Solvent naphtha (petroleum), light aromatic	10 - <20	64742-95-6
1-methoxy-2-propanol	10 - <20	107-98-2
1,2,4-trimethylbenzene	5 - <10	95-63-6
2,4,6-tris(dimethylaminomethyl)phenol	3 - <5	90-72-2
ethylbenzene	1 - <3	100-41-4
3,6-diazaoctanethylenediamin	1 - <3	112-24-3
mesitylene	1 - <3	108-67-8
propylbenzene	1 - <3	103-65-1
1,2,3-trimethylbenzene	1 - <3	526-73-8
cumene	0.1 - <0.3	98-82-8

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes severe burns. May be harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** : May be harmful if swallowed. Corrosive to the digestive tract. Causes burns. Can cause central nervous system (CNS) depression.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness

## Section 4. First aid measures

- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
dryness  
cracking  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon oxides  
nitrogen oxides  
halogenated compounds

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flames, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

### Methods and material for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spill product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
xylene	<b>ACGIH TLV (United States, 7/2023). [p-xylene and mixtures containing p-xylene] Ototoxicant.</b> TWA: 20 ppm 8 hours.
1-methoxy-2-propanol	<b>ACGIH TLV (United States, 7/2023).</b> STEL: 369 mg/m <sup>3</sup> 15 minutes. STEL: 100 ppm 15 minutes. TWA: 184 mg/m <sup>3</sup> 8 hours. TWA: 50 ppm 8 hours.
1,2,4-trimethylbenzene	<b>ACGIH TLV (United States, 7/2023).</b> TWA: 10 ppm 8 hours.
ethylbenzene	<b>ACGIH TLV (United States, 7/2023). Ototoxicant.</b> TWA: 20 ppm 8 hours.
mesitylene	<b>ACGIH TLV (United States, 7/2023). [trimethyl benzene, isomers]</b> TWA: 10 ppm 8 hours.
1,2,3-trimethylbenzene	<b>ACGIH TLV (United States, 7/2023). [trimethyl benzene, isomers]</b> TWA: 10 ppm 8 hours.
cumene	<b>ACGIH TLV (United States, 7/2023).</b> TWA: 5 ppm 8 hours.

**Recommended monitoring procedures** : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

## Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Gloves** : nitrile neoprene
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Liquid.
- Colour** : Various
- Odour** : Characteristic.
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : >37.78°C (>100°F)
- Flammability** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Flash point** : Closed cup: 32°C (89.6°F)

### Auto-ignition temperature

Ingredient name	°C	°F	Method
1-methoxy-2-propanol	270	518	

## Section 9. Physical and chemical properties

- Decomposition temperature** : Not available.
- pH** : Not applicable.
- Viscosity** : Kinematic (room temperature): >400 mm<sup>2</sup>/s  
Kinematic (40°C): >21 mm<sup>2</sup>/s

**Solubility(ies)** :

Media	Result
Cold water	Not soluble

- Partition coefficient: n-octanol/water** : Not applicable.

**Vapour pressure** :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Ethylbenzene	9.30076	1.2				

- Relative density** : 0.95
- Relative vapour density** : Not available.
- Particle characteristics**
- Median particle size** : Not applicable.
- Evaporation rate** : Not available.

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products.
- Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
- Hazardous decomposition products** : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides halogenated compounds
- Hazardous polymerisation** : Under normal conditions of storage and use, hazardous polymerisation will not occur.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity



## Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	LD50 Dermal	Rat	>2000 mg/kg	-
xylene	LD50 Oral LD50 Dermal LD50 Oral	Rat Rabbit Rat	>2000 mg/kg 1.7 g/kg 4.3 g/kg	- - -
Solvent naphtha (petroleum), light aromatic	LD50 Dermal	Rabbit	3.48 g/kg	-
1-methoxy-2-propanol	LD50 Oral LC50 Inhalation Vapour LD50 Dermal	Rat Rat Rabbit	8400 mg/kg >7000 ppm 13 g/kg	- 6 hours -
1,2,4-trimethylbenzene	LD50 Oral LC50 Inhalation Vapour LD50 Oral	Rat Rat Rat	5.2 g/kg 18000 mg/m <sup>3</sup> 5 g/kg	- 4 hours -
2,4,6-tris (dimethylaminomethyl) phenol	LD50 Dermal	Rat	1280 mg/kg	-
ethylbenzene	LD50 Oral LC50 Inhalation Vapour LD50 Dermal	Rat Rat Rabbit	1200 mg/kg 17.8 mg/l 17.8 g/kg	- 4 hours -
3,6-diazaoctanethylenediamin	LD50 Oral LD50 Dermal	Rat Rabbit	3.5 g/kg 1465 mg/kg	- -
mesitylene	LD50 Oral LC50 Inhalation Vapour LD50 Oral	Rat Rat Rat	1716 mg/kg 24000 mg/m <sup>3</sup> 5000 mg/kg	- 4 hours -
propylbenzene	LD50 Oral	Rat	6040 mg/kg	-
1,2,3-trimethylbenzene	LD50 Oral	Rat	11.4 g/kg	-
cumene	LC50 Inhalation Vapour LD50 Dermal LD50 Oral	Rat Rabbit Rat	39000 mg/m <sup>3</sup> 12.3 g/kg 2260 mg/kg	4 hours - -

**Conclusion/Summary** : There are no data available on the mixture itself.

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Eyes - Severe irritant	Rabbit	-	-	-
xylene	Skin - Irritant Skin - Moderate irritant	Human Rabbit	- -	- 24 hours 500 mg	- -

### **Conclusion/Summary**

**Skin** : There are no data available on the mixture itself.

**Eyes** : There are no data available on the mixture itself.

**Respiratory** : There are no data available on the mixture itself.

### Sensitisation

## Section 11. Toxicological information

Product/ingredient name	Route of exposure	Species	Result
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	skin	Mouse	Sensitising
3,6-diazaoctanethylenediamin	skin	Guinea pig	Sensitising

### Conclusion/Summary

**Skin** : There are no data available on the mixture itself.

**Respiratory** : There are no data available on the mixture itself.

### Mutagenicity

**Conclusion/Summary** : There are no data available on the mixture itself.

### Carcinogenicity

**Conclusion/Summary** : There are no data available on the mixture itself.

### Reproductive toxicity

**Conclusion/Summary** : There are no data available on the mixture itself.

### Teratogenicity

**Conclusion/Summary** : There are no data available on the mixture itself.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
Solvent naphtha (petroleum), light aromatic	Category 3	-	Narcotic effects
1-methoxy-2-propanol	Category 3	-	Narcotic effects
1,2,4-trimethylbenzene	Category 3	-	Respiratory tract irritation
mesitylene	Category 3	-	Respiratory tract irritation
propylbenzene	Category 3	-	Respiratory tract irritation
cumene	Category 3	-	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs
cumene	Category 2	-	-

### Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
propylbenzene	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1

## Section 11. Toxicological information

**Information on likely routes of exposure** : Not available.

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes severe burns. May be harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** :  May be harmful if swallowed. Corrosive to the digestive tract. Causes burns. Can cause central nervous system (CNS) depression.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
dryness  
cracking  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Potential chronic health effects

Not available.

- General** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** :  May cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

## Section 11. Toxicological information

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	4386.46 mg/kg
Dermal	2750.51 mg/kg
Inhalation (vapours)	19.94 mg/l
Inhalation (dusts and mists)	2.29 mg/l

#### Other information :

Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Exposure to amine vapor has been reported to cause transient corneal edema described as blue haze, halo effect, foggy or blurred vision for several hours. This condition is typically temporary and does not cause permanent visual effects. When the proper eye protection specified in Section 8 is worn, exposure is significantly reduced and the condition has not been observed.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	EC10 1.78 mg/l	Algae	72 hours
Solvent naphtha (petroleum), light aromatic	Acute LC50 8.2 mg/l	Fish	96 hours
1-methoxy-2-propanol	Acute LC50 23300 mg/l	Daphnia	48 hours
2,4,6-tris (dimethylaminomethyl)phenol	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours
	Acute LC50 >100 mg/l	Daphnia	48 hours
ethylbenzene	Acute LC50 >100 mg/l	Fish	96 hours
	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - <i>Ceriodaphnia dubia</i>	-

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2,4,6-tris (dimethylaminomethyl)phenol	OECD 301D Ready Biodegradability - Closed Bottle Test	4 % - Not readily - 28 days	-	-
ethylbenzene	-	79 % - Readily - 10 days	-	-

## Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	-	-	Not readily
xylene	-	-	Readily
2,4,6-tris (dimethylaminomethyl)phenol	-	-	Not readily
ethylbenzene	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
xylene	3.12	7.4 to 18.5	Low
1-methoxy-2-propanol	<1	-	Low
1,2,4-trimethylbenzene	3.63	120.23	Low
2,4,6-tris (dimethylaminomethyl)phenol	0.219	-	Low
ethylbenzene	3.6	79.43	Low
3,6-diazaoctanethylenediamin	-1.66 to -1.4	-	Low
mesitylene	3.42	186.21	Low
propylbenzene	3.69	-	Low
1,2,3-trimethylbenzene	3.66	194.98	Low
cumene	3.55	35.48	Low

### Mobility in soil


Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	UN	IMDG	IATA
UN number	UN3469	UN3469	UN3469
UN proper shipping name	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE
Transport hazard class(es)	3 (8)	3 (8)	3 (8)
Packing group	III	III	III
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	 (Polyamide)	Not applicable.

### Additional information

**UN** : None identified.

**IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

**IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

**Special precautions for user** : **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not applicable.

## Section 15. Regulatory information

### International regulations

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

## Section 16. Other information

### History

**Date of issue/Date of revision** : 29 May 2024

**Date of previous issue** : 5/20/2021

**Version** : 11

**Prepared by** : EHS

## Section 16. Other information

### Key to abbreviations

: ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations

### Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 5 ACUTE TOXICITY (dermal) - Category 5 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 1C SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SKIN SENSITISATION - Category 1 CARCINOGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

Indicates information that has changed from previously issued version.

### Notice to reader

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