SAFETY DATA SHEET

Date of issue/Date of revision : 20 December 2023 Version : 2.04



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : SIGMACOVER 456 HS BASE (LEAD FREE COLOURS)

Product code : 00326453

Other means of identification

Not available.

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

Product use : Professional applications, Used by spraying.

Use of the substance/

mixture

: Coating.

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

1.3 Details of the supplier of the safety data sheet

Sigma Paint Saudi Arabia Ltd.

PO Box 7509 Dammam 31472 Saudi Arabia

Tel: 00966 138 47 31 00 Fax: 00966 138 47 17 34

e-mail address of person responsible for this SDS

: ndpic@sfda.gov.sa

1.4 Emergency telephone

number

: 00966 138473100 extn 1001

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SIGMACOVER 456 HS BASE (LEAD FREE COLOURS)

SECTION 2: Hazards identification

Hazard pictograms









Signal word : Warning

Hazard statements : Flammable liquid and vapour.

Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye irritation.

May cause damage to organs through prolonged or repeated exposure.

Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot

surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to

the environment. Do not breathe vapour.

Response : Collect spillage.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and

international regulations.

P280, P210, P273, P260, P391, P501

Hazardous ingredients : bis-[4-(2,3-epoxipropoxi)phenyl]propane

Trimethylolpropane triacrylate, ethoxylated

Epoxy Resin (700<MW<=1100) epoxy resin (MW ≤ 700)

crystalline silica, respirable powder (<10 microns) 1,3-bis[12-hydroxy-octadecamide-N-methylene]-benzene

Supplemental label

elements

: Contains epoxy constituents. May produce an allergic reaction.

Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe

spray or mist.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant

fastenings

: Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB

: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

: Prolonged or repeated contact may dry skin and cause irritation.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

3.2 Mixtures	: Mixture				
Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
kylene	EC: 215-535-7 CAS: 1330-20-7	≥10 - ≤18	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Dermal] = 1700 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
trizinc bis(orthophosphate)	REACH #: 01-2119485044-40 EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6	≥5.0 - ≤10	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
bis-[4-(2,3-epoxipropoxi) phenyl]propane	REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2	≥1.0 - ≤5.0	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	Skin Irrit. 2, H315: C ≥ 5% Eye Irrit. 2, H319: C ≥ 5%	[1]
Trimethylolpropane triacrylate, ethoxylated	EC: 500-066-5 CAS: 28961-43-5	≥1.0 - ≤5.0	Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 3, H412	-	[1]
Epoxy Resin (700 <mw <="1100)</td"><td>CAS: 25036-25-3</td><td>≥1.0 - ≤5.0</td><td>Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317</td><td>-</td><td>[1]</td></mw>	CAS: 25036-25-3	≥1.0 - ≤5.0	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]
epoxy resin (MW ≤ 700)	REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6	≥1.0 - ≤5.0	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	Skin Irrit. 2, H315: C ≥ 5% Eye Irrit. 2, H319: C ≥ 5%	[1]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥1.0 - ≤5.0	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Inhalation (vapours)] = 17.8 mg/l	[1] [2]
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≥1.0 - ≤5.0	Flam. Liq. 3, H226 STOT SE 3, H336	-	[1] [2]
crystalline silica, respirable powder (<10 microns)	EC: 238-878-4 CAS: 14808-60-7	≥1.0 - ≤5.0	STOT RE 1, H372 (inhalation)	-	[1] [2]
2-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1	≤1.5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335	-	[1] [2]

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SECTION 3: Composition/information on ingredients

	Index: 603-108-00-1		STOT SE 3, H336		
1,3-bis[12-hydroxy- octadecamide-N- methylene]-benzene	REACH #: 01-2119962189-26 CAS: 911674-82-3 Index: 616-198-00-2	<1.0	Skin Sens. 1, H317 Aquatic Chronic 4, H413	-	[1] [2]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≤0.30	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
			See Section 16 for the full text of the H statements declared above.		

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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Xylene: Several REACH registrations cover the REACH registered substance with xylene isomers, ethylbenzene (and toluene). The other REACH Registrations include: 01-2119555267-33 reaction mass of ethylbenzene and m-xylene and pxylene, 01-2119486136-34 Aromatic hydrocarbons, C8, 01-2119539452-40 reaction mass of ethylbenzene and xylene.

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit

This mixture contains ≥ 1% of titanium dioxide. The Annex VI classification of titanium dioxide does not apply to this mixture according to Note 10.

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

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids

apart for at least 10 minutes and seek immediate medical advice.

In case of accidental eye contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed

get medical attention if pain, irritation or blistering occurs after contact.

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.

: No action shall be taken involving any personal risk or without suitable training. 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.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Protection of first-aiders

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

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SECTION 4: First aid measures

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness dryness cracking

Ingestion: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

: 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 combustion products

: Decomposition products may include the following materials:

carbon oxides phosphorus oxides halogenated compounds metal oxide/oxides

5.3 Advice for firefighters

Special precautions 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

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SECTION 6: Accidental release measures

6.1 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing 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".

6.2 Environmental precautions

: Avoid dispersal of spilt 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.

6.3 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

See Section 1 for emergency contact information.
 See Section 8 for information on appropriate personal protective equipment.
 See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 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. 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.

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SECTION 7: Handling and storage

7.2 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. 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.

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
vystalline silica, respirable powder (>10 microns)	Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006). TWA: 0.1 mg/m³ 8 hours. Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016). [silica (inhalable particle)/ (respirable particulate)] TWA: 10 mg/m³ 8 hours. Form: inhalable particle TWA: 3 mg/m³ 8 hours. Form: respirable particulate Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016). [quartz silica crystalline–α-quartz and cristobalite] TWA: 0.025 mg/m³ 8 hours. Form: measured as respirable fraction of the aerosol ACGIH TLV (United States, 1/2023). [Silica, crystalline] Notes: Respirable fraction; see Appendix C, paragraph C. TWA: 0.025 mg/m³ 8 hours. Form: Respirable
Talc , not containing asbestiform fibres	Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016). TWA: 2 mg/m³ 8 hours. Form: measured as respirable fraction of the aerosol Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006). TWA: 2 mg/m³ 8 hours. ACGIH TLV (United States, 1/2023). TWA: 2 mg/m³ 8 hours. Form: Respirable Abu Dhabi - OSHAD - Occupational air quality threshold limit
ttamam dioxido	values (United Arab Emirates, 7/2016). TWA: 10 mg/m³ 8 hours. Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006). TWA: 10 mg/m³ 8 hours. ACGIH TLV (United States, 1/2023). TWA: 2.5 mg/m³ 8 hours. Form: respirable fraction, finescale particles

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ethylbenzene

1-methoxy-2-propanol

xylene

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016). [xylene (o, m & p isomers)]

STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006). [xylene (all isomers)]

STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. STEL: 651 mg/m³ 15 minutes. TWA: 100 ppm 8 hours.

ACGIH TLV (United States, 1/2023). [p-xylene and mixtures containing p-xylene] Ototoxicant.

TWA: 20 ppm 8 hours.

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016).

STEL: 543 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006).

STEL: 125 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. STEL: 543 mg/m³ 15 minutes. TWA: 100 ppm 8 hours.

ACGIH TLV (United States, 1/2023). Ototoxicant. Notes: Substances for which there is a Biological Exposure Index or Indices 2002 Adoption.

TWA: 20 ppm 8 hours.

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016).

TWA: 369 mg/m³ 8 hours. TWA: 100 ppm 8 hours. STEL: 553 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006).

STEL: 150 ppm 15 minutes. TWA: 369 mg/m³ 8 hours. STEL: 553 mg/m³ 15 minutes. TWA: 100 ppm 8 hours.

ACGIH TLV (United States, 1/2023).

STEL: 369 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 184 mg/m³ 8 hours. TWA: 50 ppm 8 hours.

crystalline silica, respirable powder (<10 microns)

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006).

TWA: 0.1 mg/m³ 8 hours.

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016). [silica (inhalable particle)/ (respirable particulate)]

TWA: 10 mg/m³ 8 hours. Form: inhalable particle TWA: 3 mg/m³ 8 hours. Form: respirable particulate

Abu Dhabi - OSHAD - Occupational air quality threshold limit

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values (United Arab Emirates, 7/2016). [quartz silica crystalline–α-quartz and cristobalite]

TWA: 0.025 mg/m³ 8 hours. Form: measured as respirable fraction

of the aerosol

ACGIH TLV (United States, 1/2023). [Silica, crystalline] Notes:

Respirable fraction; see Appendix C, paragraph C.

TWA: 0.025 mg/m³ 8 hours. Form: Respirable

Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016).

TWA: 152 mg/m³ 8 hours.

TWA: 152 mg/m³ 8 nours TWA: 50 ppm 8 hours.

Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006).

TWA: 152 mg/m³ 8 hours. TWA: 50 ppm 8 hours.

ACGIH TLV (United States, 1/2023).

TWA: 152 mg/m³ 8 hours. TWA: 50 ppm 8 hours.

Recommended monitoring procedures

2-methylpropan-1-ol

: Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

8.2 Exposure controls

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.

Individual protection measures

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 **Skin protection**

Hand protection

: Chemical splash goggles.

: 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. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Gloves : polyethylene butyl rubber

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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 antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

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

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.

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid. Colour Various Odour : Aromatic. **Odour threshold** : Not available.

Melting point/freezing point

May start to solidify at the following temperature: 8 to 12°C (46.4 to 53.6°F) This is based on data for the following ingredient: bis-[4-(2,3-epoxipropoxi)phenyl]propane.

Weighted average: -65.93°C (-86.7°F)

Initial boiling point and

boiling range

: >37.78°C

Flammability : Not available.

Upper/lower flammability or

explosive limits

: Greatest known range: Lower: 1.48% Upper: 13.74% (1-methoxy-2-propanol)

Flash point : Closed cup: 27.9°C **Auto-ignition temperature** : 430°C (806°F)

Decomposition temperature

pН

Stable under recommended storage and handling conditions (see Section 7).

Not applicable. insoluble in water. Kinematic (40°C): >21 mm²/s **Viscosity**

60 - 100 s (ISO 6mm) **Viscosity**

Solubility(ies)

Media Result cold water Not soluble

Partition coefficient: n-octanol/ : Not applicable.

water

Vapour pressure

Ingredient neme	Vapour Pressure at 20°C			Vapou	ır pressı	re at 50°C
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
methylpropan-1-ol	<12.00102	<1.6	DIN EN 13016-2			

Highest known value: 0.84 (ethylbenzene) Weighted average: 0.78compared with **Evaporation rate**

butyl acetate

Relative density 1.57

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SECTION 9: Physical and chemical properties

Vapour density

: Highest known value: 11.7 (Air = 1) (bis-[4-(2,3-epoxipropoxi)phenyl]propane).

Weighted average: 5.19 (Air = 1)

Explosive properties

: The product itself is not explosive, but the formation of an explosible mixture of

vapour or dust with air is possible.

Oxidising properties

Particle characteristics

: Product does not present an oxidizing hazard.

Median particle size : Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity

: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

: The product is stable.

10.3 Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

: When exposed to high temperatures may produce hazardous decomposition products.

Refer to protective measures listed in sections 7 and 8.

10.5 Incompatible materials

: Keep away from the following materials to prevent strong exothermic reactions:

oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products

Depending on conditions, decomposition products may include the following materials: carbon oxides phosphorus oxides halogenated compounds metal oxide/oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
•	LD50 Oral	Rat	4.3 g/kg	-
trizinc bis(orthophosphate)	LC50 Inhalation Dusts and	Rat	>5.7 mg/l	4 hours
, ,	mists			
	LD50 Oral	Rat	>5000 mg/kg	-
bis-[4-(2,3-epoxipropoxi)phenyl]propane	LD50 Dermal	Rabbit	23000 mg/kg	-
	LD50 Oral	Rat	15000 mg/kg	-
Trimethylolpropane triacrylate, ethoxylated	LD50 Dermal	Rabbit	>13 g/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
Epoxy Resin (700 <mw<=1100)< td=""><td>LD50 Dermal</td><td>Rat</td><td>>2000 mg/kg</td><td>-</td></mw<=1100)<>	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	>2 g/kg	-
ethylbenzene	LC50 Inhalation Vapour	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
1-methoxy-2-propanol	LC50 Inhalation Vapour	Rat	>7000 ppm	6 hours
	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapour	Rat	24.6 mg/l	4 hours

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	LD50 Dermal	Rabbit	2460 mg/kg	-	-
	LD50 Oral	Rat	2830 mg/kg	-	
Reaction products of	LC50 Inhalation Dusts and	Rat	>5.08 mg/l	4 hours	
12-hydroxyoctadecanoic acid and	mists				
octadecanoic acid and					
1,3-phenylenedimethanamine					
zinc oxide	LC50 Inhalation Dusts and	Rat	>5700 mg/m ³	4 hours	
	mists				
	LD50 Dermal	Rat	>2000 mg/kg	-	
	LD50 Oral	Rat	>5000 mg/kg	-	

Conclusion/Summary

: There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
x ylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Eyes - Mild irritant	Rabbit	-	24 hours	-
	Eyes - Redness of the	Rabbit	0.4	24 hours	-
	conjunctivae				
	Skin - Oedema	Rabbit	0.5	4 hours	-
	Skin - Erythema/Eschar	Rabbit	0.8	4 hours	-
	Skin - Mild irritant	Rabbit	-	4 hours	-
epoxy resin (MW ≤ 700)	Eyes - Mild irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-

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

Product/ingredient name	Route of exposure	Species	Result
bis-[4-(2,3-epoxipropoxi)phenyl]propane	skin	Mouse	Sensitising
epoxy resin (MW ≤ 700)	skin	Mouse	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)

Product/ingredient name	Category	Route of exposure	Target organs
xylene 1-methoxy-2-propanol 2-methylpropan-1-ol	Category 3 Category 3 Category 3	- -	Respiratory tract irritation Narcotic effects Respiratory tract irritation
,, ,	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

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Product/ingredient name	Category	Route of exposure	Target organs
	Category 2	-	hearing organs
	Category 1	inhalation	-

Aspiration hazard

Product/ingredient name	Result		
xylene ethylbenzene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1		

Information on likely routes of exposure

: Not available.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.Ingestion : No known significant effects or critical hazards.

Skin contact: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Eye contact : Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : No specific data.Ingestion : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness dryness cracking

Eye contact: Adverse symptoms may include the following:

pain or irritation

watering redness

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

Short term exposure

Potential immediate : Not available.

effects

Potential delayed effects: Not available.

Long term exposure

Potential immediate

effects

: Not available.

Potential delayed effects: Not available.

Potential chronic health effects

Not available.

Conclusion/Summary: Not available.

General : May cause damage to organs through prolonged or repeated exposure. 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 : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

Other information : Not available.

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Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. 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. Acrylate components of the mixture have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects. In case of accidental skin contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation, rash or blistering occurs after contact. Avoid contact with skin and clothing.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
rizinc bis(orthophosphate)	Acute LC50 0.112 mg/l	Fish	96 hours
	Chronic NOEC 0.026 mg/l	Fish	30 days
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Acute LC50 1.8 mg/l Fresh	Daphnia - daphnia	48 hours
	water	magna	
	Chronic NOEC 0.3 mg/l	Daphnia	21 days
Trimethylolpropane triacrylate, ethoxylated	Acute EC50 2.2 mg/l	Algae	72 hours
	Acute EC50 70.7 mg/l	Daphnia	48 hours
	Acute LC50 1.95 mg/l	Fish	96 hours
epoxy resin (MW ≤ 700)	Acute LC50 1.8 mg/l	Daphnia	48 hours
	Chronic NOEC 0.3 mg/l	Daphnia	21 days
ethylbenzene	Acute EC50 1.8 mg/l Fresh	Daphnia	48 hours
	water		
	Chronic NOEC 1 mg/l Fresh	Daphnia -	-
	water	Ceriodaphnia dubia	
1-methoxy-2-propanol	Acute LC50 23300 mg/l	Daphnia	48 hours
• • •	Acute LC50 >4500 mg/l	Fish	96 hours
	Fresh water		
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine	Acute LC50 >100 mg/l	Fish	96 hours
zinc oxide	Acute EC50 0.17 mg/l	Algae	72 hours
2.110 07.100	Acute EC50 0.481 mg/l	Daphnia - <i>Daphnia</i>	48 hours
	Fresh water	magna - Neonate	
	Chronic NOEC 0.017 mg/l Fresh water	Algae	72 hours

Conclusion/Summary

: There are no data available on the mixture itself.

12.2 Persistence and degradability

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Product/ingredient name	Test	Result	Dose	Inoculum
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	OECD 301B Ready Biodegradability - CO2 Evolution Test	58 to 61 % - Readily - 28 days	-	-
epoxy resin (MW ≤ 700) ethylbenzene	OECD 301F -	5 % - 28 days 79 % - Readily - 10 days	-	-

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

Aquatic half-life	Photolysis	Biodegradability
-	-	Readily Not readily
-	-	Readily
-	-	Not readily Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
kylene	3.12	7.4 to 18.5	Low
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	2.89	-	Low
epoxy resin (MW ≤ 700)	3	31	Low
ethylbenzene	3.6	79.43	Low
1-methoxy-2-propanol	<1	-	Low
2-methylpropan-1-ol	1	-	Low

12.4 Mobility in soil

Soil/water partition : Not available.

coefficient (Koc)

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

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SECTION 13: Disposal considerations

Methods of disposal

: 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.

Hazardous waste

Yes.

European waste catalogue (EWC)

Waste code	Waste designation		
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances		

Packaging

Methods of disposal

The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Type of packaging		European waste catalogue (EWC)
Container	15 01 06	mixed packaging

Special precautions

: 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

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(trizinc bis(orthophosphate))	Not applicable.

Additional information

ADR/RID : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or

≤5 kg.

Tunnel code : (D/E)

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

: The environmentally hazardous substance mark may appear if required by other transportation

regulations.

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SECTION 14: Transport information

user

14.6 Special precautions for : 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.

14.7 Transport in bulk according to IMO instruments

: Not applicable.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions : Not applicable.

on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Other national and international regulations.

Explosive precursors : Not applicable. Ozone depleting substances (1005/2009/EU)

Not listed.

15.2 Chemical safety

assessment

: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

Full text of abbreviated H statements

: H225 Highly flammable liquid and vapour.

Flammable liquid and vapour. H226

May be fatal if swallowed and enters airways. H304

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

Causes damage to organs through prolonged or repeated exposure. H372 H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

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SECTION 16: Other information

Very toxic to aquatic life with long lasting effects. H410 H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects. H413 May cause long lasting harmful effects to aquatic life.

Full text of classifications [CLP/GHS]

: Acute Tox. 4 Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 3 Aquatic Chronic 4 Asp. Tox. 1

ACUTE TOXICITY - Category 4 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1

LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4

ASPIRATION HAZARD - Category 1

Eye Dam. 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

Flam. Liq. 2 FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3 Flam. Liq. 3

Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2

Skin Sens. 1 SKIN SENSITISATION - Category 1 Skin Sens. 1B SKIN SENSITISATION - Category 1B

STOT RE 1 SPECIFIC TARGET ORGAN TOXICITY - REPEATED

EXPOSURE - Category 1

STOT RE 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED

EXPOSURE - Category 2

STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE

EXPOSURE - Category 3

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