



SAFETY DATA SHEET

9169 Rustprimer (Base)

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

1.1 Product identifier

Product name : 9169 Rustprimer (Base)
Product description : Paint
Product type : Liquid.
UFI : J6U0-H023-U00A-KDTH

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

Identified uses	
Industrial use Professional use	
Uses advised against	Reason
Consumer use	Product is not intended for consumer use.

1.3 Details of the supplier of the safety data sheet

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Tor Coatings Limited
 Unit 21, White Rose Way, Follingsby Park, Gateshead, Tyne & Wear, NE10 8YX United Kingdom
 Telephone no.: +44 (0) 191 4106611
 Fax no.: +44 (0) 191 4920125
 enquiries@tor-coatings.com

e-mail address of person responsible for this SDS : rpmeurohas@rustoleum.eu

1.4 Emergency telephone number

National advisory body/Poison Centre

Supplier

Telephone number : +44 870 8200418 / +44 2038073798

Hours of operation : 24 / 7

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
 Aquatic Chronic 2, H411

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

SECTION 2: Hazards identification

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

Hazard pictograms



Signal word

: Warning

Hazard statements

: Flammable liquid and vapour.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Toxic to aquatic life with long lasting effects.

Precautionary statements

General

: Not applicable.

Prevention

: P280 - Wear protective gloves. Wear eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 - Avoid release to the environment.

Response

: P391 - Collect spillage.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

Storage

: P403 + P235 - Store in a well-ventilated place. Keep cool.

Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients

: bisphenol-A-epoxy resin avg.mol.wght. ≤ 700
bis-[4-(2,3-epoxipropoxy)phenyl]propane
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
1,6-Hexanediol, reaction products with epichlorohydrin
Fatty acids, C14-18 and C16-18-unsatd., maleated
maleic anhydride

Supplemental label elements

: Contains epoxy constituents. May produce an allergic reaction.

Supplemental label elements : Detergents - Regulation (EC) No 907/2006

: Not applicable.

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 according to Regulation (EC) No. 1907/2006, Annex XIII

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SECTION 2: Hazards identification

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 : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

United Kingdom: Great Britain

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
bisphenol-A-epoxy resin avg.mol. wght. ≤ 700	REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6 Index: 603-074-00-8	≥10 - ≤25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
bis-[4-(2,3-epoxipropoxy)phenyl] propane	EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2	≥10 - ≤25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 2, H411	[1]
trizinc bis(orthophosphate)	REACH #: 01-2119485044-40 EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6	≤10	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7	≤10	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 (oral, inhalation) Asp. Tox. 1, H304	[1] [2]
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≤5	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	EC: 500-006-8 CAS: 9003-36-5	≤3	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
propane-1,2-diol	REACH #: 01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	≤3	Not classified.	[2]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≤3	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
butan-1-ol	REACH #: 01-2119484630-38 EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6	≤3	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	[1] [2]
1,6-Hexanediol, reaction products	EC: 618-939-5	≤3	Skin Irrit. 2, H315	[1]

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SECTION 3: Composition/information on ingredients

with epichlorohydrin	CAS: 933999-84-9		Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412	
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≤3	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
Fatty acids, C14-18 and C16-18-unsatd., maleated	REACH #: 01-2119976378-19 EC: 288-306-2 CAS: 85711-46-2	≤0,3	Skin Irrit. 2, H315 Skin Sens. 1, H317	[1]
maleic anhydride	EC: 203-571-6 CAS: 108-31-6 Index: 607-096-00-9	≤0,1	Acute Tox. 4, H302 Skin Corr. 1, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT RE 1, H372 (inhalation) EUH071 See Section 16 for the full text of the H statements declared above.	[1] [2]

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

SCL (Specific Concentration Limits) Not applicable.	Not applicable.
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ATE (acute toxicity estimates) Not applicable.	Not applicable.
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Nanoform Particle characteristics This product does not contains nanomaterials.	Particle Size Not applicable.
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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.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : 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

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
- 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

SECTION 5: Firefighting measures

- 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. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. 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 dioxide
carbon monoxide
phosphorus oxides
halogenated compounds
metal oxide/oxides
- 5.3 Advice for firefighters**
- 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. 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.
- Additional information** : No unusual hazard if involved in a fire.

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.

SECTION 6: Accidental release measures

- 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.

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 ingest. Avoid breathing vapour or mist. 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. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. 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.

7.2 Conditions for safe storage, including any incompatibilities

Do not store above the following temperature: 35°C (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.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c E2	5000 tonne 200 tonne	50000 tonne 500 tonne

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

United Kingdom: Great Britain

Product/ingredient name	Exposure limit values
xylene	EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed through skin. STEL: 441 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 220 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
1-methoxy-2-propanol	EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed through skin. STEL: 560 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
propane-1,2-diol	EH40/2005 WELs (United Kingdom (UK), 8/2018). TWA: 10 mg/m ³ 8 hours. Form: Particulate TWA: 474 mg/m ³ 8 hours. Form: Sum of vapour and particulates TWA: 150 ppm 8 hours. Form: Sum of vapour and particulates
butan-1-ol	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 154 mg/m ³ 15 minutes. STEL: 50 ppm 15 minutes.
ethylbenzene	EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed through skin. STEL: 552 mg/m ³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 441 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
maleic anhydride	EH40/2005 WELs (United Kingdom (UK), 8/2018). Inhalation sensitiser. STEL: 3 mg/m ³ 15 minutes. TWA: 1 mg/m ³ 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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.

DNELs/DMELs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
bisphenol-A-epoxy resin avg.mol. wght. ≤ 700	DNEL	Short term Dermal	8,3 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	12,3 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	8,3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	12,3 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	3,6 mg/kg bw/day	General population [Human via the environment]	Systemic
	DNEL	Short term Inhalation	0,75 mg/m ³	General population [Human via the environment]	Systemic
	DNEL	Short term Oral	0,75 mg/kg bw/day	General population [Human via the environment]	Systemic
	DNEL	Long term Dermal	3,6 mg/kg bw/day	General population [Human via the environment]	Systemic
	DNEL	Long term Inhalation	0,75 mg/m ³	General population [Human via the environment]	Systemic
	DNEL	Long term Oral	0,75 mg/kg bw/day	General population [Human via the environment]	Systemic
trizinc bis(orthophosphate)	DNEL	Long term Inhalation	5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	2,5 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population [Consumers]	Systemic
xylene	DNEL	Short term Inhalation	442 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Local
	DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	65,3 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	125 mg/kg bw/day	General population	Systemic
1-methoxy-2-propanol	DNEL	Short term Inhalation	553,5 mg/m ³	Workers	Local

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Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	DNEL	Long term Inhalation	369 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	50,6 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	43,9 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Dermal	18,1 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	3,3 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Dermal	83 mg/cm ²	Workers	Local
	DNEL	Long term Dermal	104,15 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	29,39 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	62,5 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	8,7 mg/m ³	General population [Consumers]	Systemic
zinc oxide	DNEL	Long term Oral	6,25 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	2,5 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
butan-1-ol	DNEL	Long term Dermal	83 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	310 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	55 mg/m ³	General population [Consumers]	Local
	DNEL	Long term Oral	3,125 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	3,125 mg/kg bw/day	General population [Consumers]	Systemic
1,6-Hexanediol, reaction products with epichlorohydrin	DNEL	Long term Inhalation	0,27 mg/m ³	General population	Local
	DNEL	Long term Inhalation	0,44 mg/m ³	Workers	Local
	DNEL	Short term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic

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ethylbenzene	DNEL	Short term Dermal	1,7 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1,7 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2,8 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	2,9 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	15 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Oral	1,6 mg/kg bw/day	General population [Consumers]	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
bisphenol-A-epoxy resin avg.mol.wght. ≤ 700	Fresh water	3 µg/l	-
	Marine	0,3 µg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	0,5 mg/kg dwt	-
	Marine water sediment	0,5 mg/kg dwt	-
	Sediment	0,05 mg/kg dwt	-
	trizinc bis(orthophosphate)	Fresh water	48,1 µg/l
Marine		14,2 µg/l	-
Fresh water sediment		550,2 mg/kg	-
Marine water sediment		263,9 mg/kg	-
Soil		249,4 mg/kg	-
Sewage Treatment Plant		121,4 µg/l	-
xylene		Fresh water	0,327 mg/l
	Marine water	0,327 mg/l	Sensitivity Distribution
	Fresh water sediment	12,46 mg/kg	Equilibrium Partitioning
	Marine water sediment	12,46 mg/kg	Equilibrium Partitioning
	Soil	2,31 mg/kg	Equilibrium Partitioning
	Sewage Treatment Plant	6,58 mg/l	-
1-methoxy-2-propanol	Fresh water	10 mg/l	-
	Fresh water sediment	41,6 mg/l	-
	Marine water sediment	4,17 mg/l	-
	Soil	2,47 mg/l	-
	Sewage Treatment Plant	100 mg/l	-
	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Fresh water	0,003 mg/l
Marine water		0,0003 mg/l	-
Sewage Treatment Plant		10 mg/l	-
Fresh water sediment		0,294 mg/kg dwt	-
Marine water sediment		0,0294 mg/kg dwt	-
Soil		0,237 mg/kg dwt	-
zinc oxide		Fresh water	25,6 µg/l

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butan-1-ol	Marine	7,6 µg/l	-
	Sewage Treatment Plant	64,7 µg/l	-
	Fresh water sediment	146 mg/kg dwt	-
	Marine water sediment	70,3 mg/kg dwt	-
	Soil	44,3 mg/kg dwt	-
	Fresh water	0,082 mg/l	-
	Marine	0,0082 mg/l	-
	Fresh water sediment	0,178 mg/kg	-
	Marine water sediment	0,0178 mg/kg	-
	Soil	0,015 mg/kg	-
ethylbenzene	Sewage Treatment Plant	2476 mg/l	-
	Fresh water	0,1 mg/l	-
	Marine water	0,01 mg/l	-
	Fresh water sediment	13,7 mg/kg	-
	Marine water sediment	1,37 mg/kg	-
	Soil	2,68 mg/kg	-
	Sewage Treatment Plant	9,6 mg/l	-
	Plant		

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 : 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. Use eye protection according to EN 166. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

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. > 8 hours (breakthrough time): nitrile rubber (0.5mm) or polyvinyl alcohol (PVA).

SECTION 8: Exposure controls/personal protection

The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN374. 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.

- 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. Refer to European Standard EN 1149 for further information on material and design requirements and test methods. Recommended: Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.
- 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. Recommended: organic vapour (Type AX) and particulate filter (EN 140).
- 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

- Physical state** : Liquid.
- Colour** : Brownish-red. [Dark]
- Odour** : Solvent-like
- Odour threshold** : Not available.
- Melting point/freezing point** : -20°C
- Initial boiling point and boiling range** : >110°C (>230°F) [OECD 103]
- Flammability (solid, gas)** : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Slightly flammable in the presence of the following materials or conditions: shocks and mechanical impacts.
Vapour may travel a considerable distance to source of ignition and flash back.
- Upper/lower flammability or explosive limits** : Lower: 1%
Upper: 9%
- Flash point** : Closed cup: 25°C (77°F) [ISO EN DIN 1523 / DIN 53213-1]
- Auto-ignition temperature** : >450°C (>842°F) [Literature]
- Decomposition temperature** : Not available.
- pH** : Not applicable.
- pH : Justification** : Product is non-soluble (in water).
- Viscosity** : Dynamic (room temperature): >2000 mPa·s [ASTM D562 [KU]]
Kinematic (40°C): 914 mm²/s
- Solubility(ies)** : Partially soluble in the following materials: acetone.
- Solubility in water** : Not available.

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SECTION 9: Physical and chemical properties

Partition coefficient: n-octanol/ water	: Not applicable.
Vapour pressure	: 0,8 kPa (6 mm Hg) [calculated.]
Evaporation rate	: 0,7 (Butyl acetate. = 1)
Relative density	: 1,64 [calculated.]
Density	: 1,64 g/cm ³ [20°C (68°F)]
Vapour density	: >1 [Air = 1]
Explosive properties	: No unusual hazard if involved in a fire.
Oxidising properties	: Not available.
Particle characteristics	
Median particle size	: Not applicable.

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	: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
10.5 Incompatible materials	: Reactive or incompatible with the following materials: oxidising materials
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
bisphenol-A-epoxy resin avg. mol.wght. ≤ 700	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Mouse	20 g/kg	-
	LD50 Oral	Rat	30 g/kg	-
bis-[4-(2,3-epoxipropoxy) phenyl]propane	LD50 Dermal	Rabbit	20 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5,7 mg/l	4 hours
trizinc bis(orthophosphate)	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Gas.	Rat	6670 ppm	4 hours
	LC50 Inhalation Vapour	Rat	29091 mg/m ³	4 hours
	LD50 Dermal	Rabbit	4,2 g/kg	-
xylene	LD50 Oral	Rat	4300 mg/kg	-
	TDL _o Dermal	Rabbit	4300 mg/kg	-
	LC50 Inhalation Vapour	Rat	30,02 mg/l	4 hours
	LD50 Dermal	Rabbit	13 g/kg	-
1-methoxy-2-propanol	LD50 Oral	Mouse	11700 mg/kg	-
	LD50 Oral	Rat - Male,	4016 mg/kg	-

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zinc oxide	LC50 Inhalation Dusts and mists	Female Mouse	2500 mg/m ³	4 hours
	LC50 Inhalation Dusts and mists	Rat	>5700 mg/m ³	4 hours
butan-1-ol	LD50 Oral	Rat	>15 g/kg	-
	LC50 Inhalation Vapour	Rat	25 mg/l	4 hours
ethylbenzene	LC50 Inhalation Vapour	Rat	24000 mg/m ³	4 hours
	LC50 Inhalation Vapour	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	0,79 g/kg	-
	LC50 Inhalation Vapour	Rat - Male	17,6 mg/l	4 hours
	LD50 Dermal	Rabbit - Male, Female	15400 mg/kg	-
maleic anhydride	LD50 Oral	Rat	3500 mg/kg	-
	LD50 Dermal	Rabbit	2620 mg/kg	-
	LD50 Oral	Rat	400 mg/kg	-
	LD50 Oral	Rat - Male, Female	1090 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
bisphenol-A-epoxy resin avg.mol.wght. ≤ 700	30000	N/A	N/A	N/A	N/A
bis-[4-(2,3-epoxipropoxy)phenyl]propane	N/A	20000	N/A	N/A	N/A
xylene	4300	1100	N/A	11	N/A
butan-1-ol	790	3400	N/A	24	N/A
ethylbenzene	N/A	N/A	N/A	11	N/A
maleic anhydride	400	2620	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
bisphenol-A-epoxy resin avg. mol.wght. ≤ 700	Skin - Oedema	Rabbit	1	4 hours	-
	Skin - Erythema/Eschar	Rabbit	1,5	4 hours	-
	Skin - Mild irritant	Rabbit	-	4 hours	-
	Eyes - Irritant	Rabbit	-	-	-
	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 microliters	-
bis-[4-(2,3-epoxipropoxy)phenyl]propane	Skin - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
xylene	Skin - Mild irritant	Rabbit	-	500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-
	Eyes - Moderate irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 microliters	-

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and phenol	Skin - Erythema/Eschar	Rabbit	0,7	4 hours	72 hours
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
butan-1-ol	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Eyes - Severe irritant	Rabbit	-	0.005 Milliliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
Fatty acids, C14-18 and C16-18-unsatd., maleated maleic anhydride	Skin - Irritant	Human	-	-	-
	Eyes - Severe irritant	Rabbit	-	1 Percent	-
	Skin - Severe irritant	Rabbit	-	-	-

Conclusion/Summary

- Skin** : Causes skin irritation.
- Eyes** : Causes serious eye irritation.
- Respiratory** : Based on available data, the classification criteria are not met.

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
bisphenol-A-epoxy resin avg. mol.wght. ≤ 700	skin	Mouse	Sensitising
bis-[4-(2,3-epoxipropoxy)phenyl]propane	skin	Guinea pig	Sensitising
	skin	Mouse	Sensitising
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	skin	Guinea pig	Sensitising
	skin	Guinea pig	Sensitising
1,6-Hexanediol, reaction products with epichlorohydrin	skin	Mouse	Sensitising
Fatty acids, C14-18 and C16-18-unsatd., maleated maleic anhydride	skin	Mouse	Ambiguous
	skin	Guinea pig	Sensitising

Conclusion/Summary

- Skin** : May cause an allergic skin reaction.
- Respiratory** : Based on available data, the classification criteria are not met.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Positive
	OECD 471	Subject: Bacteria	Positive
butan-1-ol	OECD 474	Subject: Mammalian-Animal	Negative
	OECD 471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative
1,6-Hexanediol, reaction	OECD 471	Subject: Mammalian-Animal	Positive

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SECTION 11: Toxicological information

products with epichlorohydrin			
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Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
bisphenol-A-epoxy resin avg. mol.wght. ≤ 700	Negative - Oral - TDLo	Rat - Female	>1000 mg/kg	2 years; 7 days per week
	Negative - Oral - TDLo	Mouse - Male	>100 mg/kg	2 years; 3 days per week

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
bisphenol-A-epoxy resin avg. mol.wght. ≤ 700	-	Negative	-	Rat	Oral: 750 mg/kg	7 days per week
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Negative	-	-	Rat	Oral: 540 mg/kg	-
Fatty acids, C14-18 and C16-18-unsatd., maleated	-	Positive	Positive	Rat - Male, Female	Oral: 1000 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
bisphenol-A-epoxy resin avg. mol.wght. ≤ 700	Negative - Oral	Rat - Female	>540 mg/kg	7 days per week
bis-[4-(2,3-epoxipropoxy)phenyl]propane	Negative - Dermal	Rabbit - Female	>300 mg/kg	7 days per week
	Positive - Dermal	Rabbit	300 mg/kg	1 days per week
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Positive - Oral	Rat	180 mg/kg	1 days per week
	Positive - Oral	Rabbit	180 mg/kg	1 days per week
	Positive - Dermal	Rabbit	300 mg/kg	6 hours; 7 days per week
	Positive - Dermal	Rabbit	100 mg/kg	6 hours; 7 days per week
	Negative - Route of exposure unreported	Rabbit - Female	>300 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

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

Specific target organ toxicity (repeated exposure)

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SECTION 11: Toxicological information

Product/ingredient name	Category	Route of exposure	Target organs
xylene ethylbenzene maleic anhydride	Category 2 Category 2 Category 1	oral, inhalation - inhalation	- hearing organs -

Aspiration hazard

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

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- 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
- Ingestion** : No specific data.

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

Product/ingredient name	Result	Species	Dose	Exposure
bisphenol-A-epoxy resin avg. mol.wght. ≤ 700	Sub-chronic NOAEL Oral	Rat	50 mg/kg	-
	Sub-chronic LOEL Oral	Rat	250 mg/kg	-
	Sub-chronic LOEL Oral	Rat	1000 mg/kg	-
	Sub-chronic NOAEL Dermal	Rat	100 mg/kg	90 days; 5 days per week
	Sub-chronic NOEL Dermal	Rat	10 mg/kg	90 days; 5 days per week

- Conclusion/Summary** : Based on available data, the classification criteria are not met.
- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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SECTION 11: Toxicological information

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.

Endocrine disrupting properties : Not available.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
bisphenol-A-epoxy resin avg. mol.wght. ≤ 700	Acute EC50 2,1 mg/l	Daphnia spec.	48 hours
trizinc bis(orthophosphate)	Acute LC50 1,3 mg/l	Fish	96 hours
	Chronic NOEC 0,3 mg/l	Daphnia spec.	21 days
xylene	Acute EC50 5,7 mg/l	Daphnia spec. - ceriodaphnia dubia	48 hours
	Acute IC50 1,87 mg/l	Algae - selenastrum capricornutum	72 hours
1-methoxy-2-propanol	Acute EC50 1,3 mg/l Fresh water	Algae	72 hours
	Acute LC50 1 mg/l Fresh water	Daphnia spec.	24 hours
	Acute NOEC 0,44 mg/l	Algae	72 hours
	Chronic NOEC 0,96 mg/l Fresh water	Daphnia spec.	21 days
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Acute EC50 >1000 mg/l	Algae - Selenastrum capricornutum	7 days
	Acute EC50 23300 mg/l	Daphnia spec.	96 hours
	Acute LC50 6812 mg/l Fresh water	Fish	96 hours
zinc oxide	Acute EC50 1,8 mg/l	Algae	72 hours
	Acute EC50 2 mg/l	Daphnia spec.	24 hours
	Acute EC50 1,6 mg/l	Daphnia spec.	48 hours
	Acute IC50 >100 mg/l	Bacteria	3 hours
	Acute LC50 0,55 mg/l	Fish	96 hours
	Acute LC50 2 mg/l	Fish	96 hours
	Chronic NOEC 0,3 mg/l	Daphnia spec.	21 days
	Acute EC50 0,024 mg/l	Algae	72 hours
	Acute EC50 0,137 mg/l	Algae	72 hours
	Acute EC50 0,413 mg/l	Daphnia spec.	48 hours
	Acute EC50 0,481 mg/l Fresh water	Daphnia spec. - Daphnia magna - Neonate	48 hours
	Acute IC50 46 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute LC50 98 µg/l Fresh water	Daphnia spec. - Daphnia magna - Neonate	48 hours
butan-1-ol	Acute LC50 0,33 to 0,78 mg/l	Fish	96 hours
	Chronic NOEC 0,019 mg/l	Algae	7 days
	Chronic NOEC 0,037 mg/l	Daphnia spec.	21 days
	Chronic NOEC 0,082 mg/l	Daphnia spec.	7 days
	Chronic NOEC 0,199 mg/l	Fish	30 days
	Acute EC50 2072 to 1983000 µg/l Fresh water	Daphnia spec. - Daphnia magna	48 hours
ethylbenzene	Acute LC50 1940000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute EC50 7700 µg/l Marine water	Algae - Skeletonema costatum	96 hours

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maleic anhydride	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2,6 mg/l Fresh water	Daphnia spec.	48 hours
	Acute LC50 5,1 mg/l Marine water	Fish	96 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 230000 µg/l Fresh water	Fish - Gambusia affinis - Adult	96 hours

Conclusion/Summary : Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
bisphenol-A-epoxy resin avg. mol.wght. ≤ 700	OECD 301B	6 to 12 % - Not readily - 28 days	-	-
	OECD 301F	5 % - Not readily - 28 days	-	-
bis-[4-(2,3-epoxipropoxi) phenyl]propane	OECD 301B	6 to 12 % - Not readily - 28 days	-	-
	-	90 % - Readily - 5 days	-	-
xylene	OECD 301F	87,8 % - 28 days	-	-
	OECD 301E	96 % - Readily - 28 days	-	-
1-methoxy-2-propanol	-	>90 % - Readily - 5 days	1,95 gO ₂ /g ThOD	-
	OECD 301C	88 to 92 % - Readily - 28 days	-	-
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	OECD 301B	16 % - Not readily - 28 days	-	-
	-	0 % - Not readily - 28 days	-	-
butan-1-ol	-	92 % - Readily - 20 days	-	-
	OECD 301B	>70 % - Readily - 19 days	-	-
1,6-Hexanediol, reaction products with epichlorohydrin	OECD 301D	71 % - 28 days	-	-
	OECD 301D	60 to 63 % - 10 days	-	-
ethylbenzene	OECD 301E	100 % - 6 days	-	-

Conclusion/Summary : This product has not been tested for biodegradation.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
bisphenol-A-epoxy resin avg. mol.wght. ≤ 700	-	-	Not readily
bis-[4-(2,3-epoxipropoxi) phenyl]propane	-	-	Not readily
xylene	-	-	Readily
1-methoxy-2-propanol	Fresh water <28 days, 5 to 25°C	-	Readily
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	-	-	Not readily
butan-1-ol	-	-	Readily
1,6-Hexanediol, reaction products with epichlorohydrin	-	-	Readily
ethylbenzene	-	-	Readily
Fatty acids, C14-18 and C16-18-unsatd., maleated	-	-	Not readily
maleic anhydride	-	-	Readily

12.3 Bioaccumulative potential

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SECTION 12: Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
bisphenol-A-epoxy resin avg. mol.wght. ≤ 700	2.64 to 3.78	31	low
bis-[4-(2,3-epoxypropoxy)phenyl]propane	3,84	-	low
trizinc bis(orthophosphate)	-	60960	high
xylene	3,12	8.1 to 25.9	low
1-methoxy-2-propanol	<1	<100	low
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	2,7	150	low
zinc oxide	-	177	low
butan-1-ol	1	-	low
ethylbenzene	3,6	15	low
maleic anhydride	-2,78	-	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Volatile.

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 : No known significant effects or critical hazards.

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.

13.1 Waste treatment methods

Product

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

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.

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SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	Paint	Paint	Paint. Marine pollutant (bisphenol-A-epoxy resin avg.mol.wght. ≤ 700)	Paint
14.3 Transport hazard class(es)	3 	3 	3 	3
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
<u>Additional information</u>	<u>Viscous liquid exception</u> This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in packagings up to 5 L, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 according to 2.2.3.1.5.2. <u>Tunnel code</u> (D/E)	<u>Viscous liquid exception</u> This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in packagings up to 5 L, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 according to 2.2.3.1.5.2.	<u>Emergency schedules F-E + S-E</u> <u>Viscous liquid exception</u> This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in packagings up to 5 L, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 according to 2.3.2.5.	The environmentally hazardous substance mark may appear if required by other transportation regulations. <u>Quantity limitation</u> Passenger and Cargo Aircraft: 60 L. Packaging instructions: 355. Cargo Aircraft Only: 220 L. Packaging instructions: 366. Limited Quantities - Passenger Aircraft: 10 L. Packaging instructions: Y344.

14.6 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.

14.7 Transport in bulk according to IMO instruments : Not available.

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.

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SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

VOC :
VOC for Ready-for-Use Mixture : 2004/42/EC - IIA/j: 500g/l (2010). <= 458g/l VOC.

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Ozone depleting substances (1005/2009/EC)

Not listed.

Prior Informed Consent (PIC) (649/2012/EC)

Not listed.

Persistent Organic Pollutants (850/2004/EC)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

P5c
E2

United Kingdom: Great Britain

References : EH40/2005 Workplace exposure limits
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

International regulations

Stockholm Convention on Persistent Organic Pollutants

List name	Ingredient name	Status
Not listed.		

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

List name	Ingredient name	Status
Not listed.		

CN code : 3208 90 91 00

Inventory list

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SECTION 15: Regulatory information

Australia	: All components are listed or exempted.
Canada	: At least one component is not listed in DSL but all such components are listed in NDSL.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (CSCL) : Not determined. Japan inventory (ISHL) : Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

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]
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 SGG = Segregation Group
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 3, H226	Expert judgment
Skin Irrit. 2, H315	Expert judgment
Eye Irrit. 2, H319	Expert judgment
Skin Sens. 1, H317	Expert judgment
Aquatic Chronic 2, H411	Expert judgment

Full text of abbreviated H statements

United Kingdom: Great Britain

Full text of abbreviated H statements :	H225 Highly flammable liquid and vapour.
	H226 Flammable liquid and vapour.
	H302 Harmful if swallowed.
	H304 May be fatal if swallowed and enters airways.
	H312 Harmful in contact with skin.
	H314 Causes severe skin burns and eye damage.
	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.
	H334 May cause allergy or asthma symptoms or breathing difficulties if

SECTION 16: Other information

	inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

[Full text of classifications \[CLP/GHS\]](#)

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	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
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Resp. Sens. 1	RESPIRATORY SENSITISATION - Category 1
Skin Corr. 1	SKIN CORROSION/IRRITATION - Category 1
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
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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[Notice to reader](#)

IMPORTANT NOTE: The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates. Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

MANUFACTURER'S DISCLAIMER: the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878 - United Kingdom (UK)

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SECTION 16: Other information

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.