

SAFETY DATA SHEET

Date of issue/Date of revision

: 24 June 2025

Version

: 2.02



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

1.1 Product identifier

Product name : SIGMAFAST 278 HRD 0000001500

Product code : 00323232CO

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

PPG France Business Support SAS, 3, ZAE "Les Dix Muids", B.P. 89, 59583 Marly Cedex, France, 33 (0)3 27 19 35 00

- Technical contact : Product Compliance EMEA

- Tel : +33 (0)3 27 19 35 00

**e-mail address of person
responsible for this SDS** : Product.Stewardship.EMEA@ppg.com

1.4 Emergency telephone number

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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 Corr. 1C, H314

Eye Dam. 1, H318

Skin Sens. 1, H317

STOT SE 3, H335

Aquatic Chronic 3, H412

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

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SECTION 2: Hazards identification

Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	Flammable liquid and vapour. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. Harmful to aquatic life with long lasting effects.
<u>Precautionary statements</u>		
Prevention	:	Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Response	:	IF INHALED: Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor.
Storage	:	Store in a well-ventilated place. Keep container tightly closed.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations. P280, P210, P304 + P310, P301 + P310, P403 + P233, P501
Hazardous ingredients	:	m-xylene; bis-[4-(2,3-epoxipropoxy)phenyl]propane; Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine; 2,4,6-tris (dimethylaminomethyl)phenol; benzyl alcohol; o-xylene; p-xylene; ethylenediamine and 3,6-diazaoctanethylenediamin
Supplemental label elements	:	Contains epoxy constituents. May produce an allergic reaction.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	Not applicable.
<u>Special packaging requirements</u>		
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	:	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

Product/ingredient name	Identifiers	% by weight	Classification	Specific Conc. Limits, M-factors and ATEs	Type
m-xylene	REACH #: 01-2119484621-37 EC: 203-576-3 CAS: 108-38-3 Index: 601-022-00-9	≥10 - ≤23	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] = 1100 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
bis-[4-(2,3-epoxipropoxy)phenyl]propane	REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2	≥5.0 - ≤10	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]
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	REACH #: 01-2119972320-44 EC: 500-191-5 CAS: 68082-29-1	≥5.0 - ≤10	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Chronic 2, H411	-	[1]
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≥5.0 - ≤10	Flam. Liq. 3, H226 STOT SE 3, H336	-	[1] [2]
2,4,6-tris (dimethylaminomethyl) phenol	REACH #: 01-2119560597-27 EC: 202-013-9 CAS: 90-72-2	≥5.0 - ≤10	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1C, H314 Eye Dam. 1, H318	ATE [Oral] = 1200 mg/kg ATE [Dermal] = 1280 mg/kg	[1]
benzyl alcohol	REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5	≥5.0 - ≤10	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317	ATE [Oral] = 1200 mg/kg	[1] [2]
o-xylene	REACH #: 01-2119485822-30 EC: 202-422-2 CAS: 95-47-6 Index: 601-022-00-9	≥1.0 - ≤5.0	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] = 1100 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
p-xylene	REACH #: 01-2119484661-33 EC: 203-396-5 CAS: 106-42-3 Index: 601-022-00-9	≥1.0 - ≤5.0	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	ATE [Dermal] = 1100 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]

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xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7	≥1.0 - ≤4.8	Asp. Tox. 1, H304 Aquatic Chronic 3, H412 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]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥1.0 - ≤4.4	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]
ethylenediamine	REACH #: 01-2119480383-37 EC: 203-468-6 CAS: 107-15-3 Index: 612-006-00-6	≤0.91	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1B, H334 Skin Sens. 1, H317 Aquatic Chronic 3, H412	ATE [Oral] = 841 mg/kg ATE [Dermal] = 560 mg/kg ATE [Inhalation (gases)] = 6000 ppm	[1] [2]
3,6-diazaoctanethylenediamin	EC: 203-950-6 CAS: 112-24-3 Index: 612-059-00-5	<1.0	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 1716 mg/kg ATE [Dermal] = 1465 mg/kg	[1] [2]

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.

Type

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

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

SUB codes represent substances without registered CAS Numbers.

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SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
Inhalation	: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
Ingestion	: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	: Causes serious eye damage.
Inhalation	: May cause respiratory irritation.
Skin contact	: Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.

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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 harmful 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
nitrogen 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.

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. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

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.

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.

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SECTION 6: Accidental release measures

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.
7.2 Conditions for safe storage, including any incompatibilities	: Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

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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
m-xylene	Regulation of the Minister of Family, Labor and Social Policy (J of Laws 2018, item 1286) (Poland, 6/2018) STEL 15 minutes: 200 mg/m³.
1-methoxy-2-propanol	Regulation of the Minister of Family, Labor and Social Policy (J of Laws 2018, item 1286) (Poland, 8/2023) Absorbed through skin. TWA 8 hours: 180 mg/m³. STEL 15 minutes: 360 mg/m³.
benzyl alcohol	Regulation of the Minister of Family, Labor and Social Policy (J of Laws 2018, item 1286) (Poland, 8/2023) TWA 8 hours: 240 mg/m³.
o-xylene	Regulation of the Minister of Family, Labor and Social Policy (J of Laws 2018, item 1286) (Poland, 6/2018) STEL 15 minutes: 200 mg/m³.
p-xylene	Regulation of the Minister of Family, Labor and Social Policy (J of Laws 2018, item 1286) (Poland, 6/2018) STEL 15 minutes: 200 mg/m³.
xylene	Regulation of the Minister of Family, Labor and Social Policy (J of Laws 2018, item 1286) (Poland, 8/2023) [xylene – mixed isomers (1,2-, 1,3-, 1,4-)] Absorbed through skin. TWA 8 hours: 100 mg/m³. STEL 15 minutes: 200 mg/m³.
ethylbenzene	Regulation of the Minister of Family, Labor and Social Policy (J of Laws 2018, item 1286) (Poland, 8/2023) Absorbed through skin. TWA 8 hours: 200 mg/m³. STEL 15 minutes: 400 mg/m³.
ethylenediamine	Regulation of the Minister of Family, Labor and Social Policy (J of Laws 2018, item 1286) (Poland, 8/2023) Absorbed through skin. TWA 8 hours: 20 mg/m³. STEL 15 minutes: 50 mg/m³.
3,6-diazaoctanethylenediamin	Regulation of the Minister of Family, Labor and Social Policy (J of Laws 2018, item 1286) (Poland, 8/2023) Absorbed through skin. TWA 8 hours: 1 mg/m³. STEL 15 minutes: 3 mg/m³.

Recommended monitoring procedures : 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

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SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure	Value
m-xylene	DNEL - General population - Long term - Oral	Effects: Systemic 2.5 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Local 65.3 mg/m ³
	DNEL - General population - Long term - Inhalation	Effects: Systemic 65.3 mg/m ³
	DNEL - General population - Long term - Dermal	Effects: Systemic 125 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	Effects: Systemic 212 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	Effects: Local 221 mg/m ³
	DNEL - Workers - Long term - Inhalation	Effects: Systemic 221 mg/m ³
	DNEL - General population - Short term - Inhalation	Effects: Local 260 mg/m ³
	DNEL - General population - Short term - Inhalation	Effects: Systemic 260 mg/m ³
	DNEL - Workers - Short term - Inhalation	Effects: Local 442 mg/m ³
	DNEL - Workers - Short term - Inhalation	Effects: Systemic 442 mg/m ³
	DNEL - Workers - Long term - Inhalation	Effects: Systemic 12.25 mg/m ³
	DNEL - Workers - Short term - Inhalation	Effects: Systemic 12.25 mg/m ³
	DNEL - Workers - Long term - Dermal	Effects: Systemic 8.33 mg/kg bw/day
	DNEL - Workers - Short term - Dermal	Effects: Systemic 8.33 mg/kg bw/day
	DNEL - General population - Consumers - Long term - Dermal	Effects: Systemic 3.571 mg/kg bw/day
bis-[4-(2,3-epoxipropoxy)phenyl]propane	DNEL - General population - Consumers - Short term - Dermal	Effects: Systemic 3.571 mg/kg bw/day
	DNEL - General population - Consumers - Long term - Oral	Effects: Systemic 0.75 mg/kg bw/day
	DNEL - General population - Consumers - Short term - Oral	Effects: Systemic 0.75 mg/kg bw/day
	DNEL - General population - Long term - Dermal	Effects: Systemic 89.3 µg/kg bw/day
	DNEL - General population - Long term - Oral	Effects: Systemic 0.5 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	Effects: Systemic 0.75 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Systemic 0.87 mg/m ³
	DNEL - Workers - Long term - Inhalation	Effects: Systemic 4.93 mg/m ³
	DNEL - General population - Long term - Oral	Effects: Systemic 97.2 µg/kg bw/day
	DNEL - General population - Long term - Dermal	Effects: Systemic 97.2 µg/kg bw/day
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	DNEL - General population - Long term - Inhalation	Effects: Systemic 0.169 mg/m ³
	DNEL - Workers - Long term - Dermal	Effects: Systemic 0.272 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	Effects: Systemic 0.952 mg/m ³
	DNEL - General population - Long term - Oral	Effects: Systemic 33 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Systemic 43.9 mg/m ³
	DNEL - General population - Long term - Dermal	Effects: Systemic 78 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	Effects: Systemic 183 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	Effects: Systemic 369 mg/m ³
1-methoxy-2-propanol	DNEL - Workers - Short term - Inhalation	Effects: Local 553.5 mg/m ³
	DNEL - Workers - Short term - Inhalation	Effects: Systemic 553.5 mg/m ³
	DNEL - General population - Long term - Oral	Effects: Systemic 0.075 mg/kg bw/day
	DNEL - General population - Long term - Oral	Effects: Systemic 0.075 mg/kg bw/day
2,4,6-tris	DNEL - General population - Long term - Oral	Effects: Systemic 0.075 mg/kg bw/day
	DNEL - General population - Long term - Oral	Effects: Systemic 0.075 mg/kg bw/day

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(dimethylaminomethyl) phenol	DNEL - General population - Short term - Dermal	Effects: Systemic	0.075 mg/kg bw/day
	DNEL - General population - Long term - Dermal	Effects: Systemic	0.075 mg/kg bw/day
	DNEL - General population - Short term - Inhalation	Effects: Systemic	0.13 mg/m ³
	DNEL - General population - Long term - Inhalation	Effects: Systemic	0.13 mg/m ³
benzyl alcohol	DNEL - Workers - Long term - Dermal	Effects: Systemic	0.15 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	Effects: Systemic	0.53 mg/m ³
	DNEL - Workers - Short term - Dermal	Effects: Systemic	0.6 mg/kg bw/day
	DNEL - Workers - Short term - Inhalation	Effects: Systemic	2.1 mg/m ³
	DNEL - General population - Long term - Oral	Effects: Systemic	4 mg/kg bw/day
	DNEL - General population - Long term - Dermal	Effects: Systemic	4 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Systemic	5.4 mg/m ³
	DNEL - Workers - Long term - Dermal	Effects: Systemic	8 mg/kg bw/day
	DNEL - General population - Short term - Oral	Effects: Systemic	20 mg/kg bw/day
	DNEL - General population - Short term - Dermal	Effects: Systemic	20 mg/kg bw/day
o-xylene	DNEL - Workers - Long term - Inhalation	Effects: Systemic	22 mg/m ³
	DNEL - General population - Short term - Inhalation	Effects: Systemic	27 mg/m ³
	DNEL - Workers - Short term - Dermal	Effects: Systemic	40 mg/kg bw/day
	DNEL - Workers - Short term - Inhalation	Effects: Systemic	110 mg/m ³
	DNEL - General population - Long term - Oral	Effects: Systemic	2.5 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Local	65.3 mg/m ³
	DNEL - General population - Long term - Inhalation	Effects: Systemic	65.3 mg/m ³
	DNEL - General population - Long term - Dermal	Effects: Systemic	125 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	Effects: Systemic	212 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	Effects: Local	221 mg/m ³
p-xylene	DNEL - Workers - Long term - Inhalation	Effects: Systemic	221 mg/m ³
	DNEL - General population - Short term - Inhalation	Effects: Local	260 mg/m ³
	DNEL - General population - Short term - Inhalation	Effects: Systemic	260 mg/m ³
	DNEL - Workers - Short term - Inhalation	Effects: Local	442 mg/m ³
	DNEL - Workers - Short term - Inhalation	Effects: Systemic	442 mg/m ³
	DNEL - General population - Long term - Oral	Effects: Systemic	2.5 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Local	65.3 mg/m ³
	DNEL - General population - Long term - Inhalation	Effects: Systemic	65.3 mg/m ³
	DNEL - General population - Long term - Dermal	Effects: Systemic	125 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	Effects: Systemic	212 mg/kg bw/day
xylene	DNEL - Workers - Long term - Inhalation	Effects: Local	221 mg/m ³
	DNEL - Workers - Long term - Inhalation	Effects: Systemic	221 mg/m ³
	DNEL - General population - Short term - Inhalation	Effects: Local	260 mg/m ³
	DNEL - General population - Short term - Inhalation	Effects: Systemic	260 mg/m ³
	DNEL - Workers - Short term - Inhalation	Effects: Local	442 mg/m ³
	DNEL - Workers - Short term - Inhalation	Effects: Systemic	442 mg/m ³
	DNEL - General population - Long term - Oral	Effects: Systemic	5 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Local	65.3 mg/m ³
	DNEL - General population - Long term - Inhalation	Effects: Systemic	65.3 mg/m ³

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ethylbenzene	Inhalation		
	DNEL - General population - Long term - Dermal	Effects: Systemic	125 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	Effects: Systemic	212 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	Effects: Local	221 mg/m³
	DNEL - Workers - Long term - Inhalation	Effects: Systemic	221 mg/m³
	DNEL - General population - Short term - Inhalation	Effects: Local	260 mg/m³
	DNEL - General population - Short term - Inhalation	Effects: Systemic	260 mg/m³
	DNEL - Workers - Short term - Inhalation	Effects: Local	442 mg/m³
	DNEL - Workers - Short term - Inhalation	Effects: Systemic	442 mg/m³
	DMEL - Workers - Long term - Inhalation	Effects: Local	442 mg/m³
ethylenediamine	DNEL - Workers - Short term - Inhalation	Effects: Systemic	884 mg/m³
	DNEL - General population - Long term - Oral	Effects: Systemic	1.6 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Systemic	15 mg/m³
	DNEL - Workers - Long term - Inhalation	Effects: Systemic	77 mg/m³
	DNEL - Workers - Long term - Dermal	Effects: Systemic	180 mg/kg bw/day
	DNEL - Workers - Short term - Inhalation	Effects: Local	293 mg/m³
	DNEL - General population - Long term - Oral	Effects: Systemic	0.11 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Systemic	6.25 mg/m³
	DNEL - Workers - Long term - Inhalation	Effects: Systemic	25 mg/m³
	DNEL - Workers - Long term - Dermal	Effects: Local	28 µg/cm²
3,6-diazaoctanethylenediamin	DNEL - General population - Long term - Dermal	Effects: Systemic	0.25 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Systemic	0.29 mg/m³
	DNEL - General population - Long term - Oral	Effects: Systemic	0.41 mg/kg bw/day
	DNEL - General population - Long term - Dermal	Effects: Local	0.43 mg/cm²
	DNEL - Workers - Long term - Dermal	Effects: Systemic	0.57 mg/kg bw/day
	DNEL - General population - Short term - Dermal	Effects: Local	1 mg/cm²
	DNEL - Workers - Long term - Inhalation	Effects: Systemic	1 mg/m³
	DNEL - General population - Short term - Dermal	Effects: Systemic	8 mg/kg bw/day
	DNEL - General population - Short term - Oral	Effects: Systemic	20 mg/kg bw/day
	DNEL - General population - Short term - Inhalation	Effects: Systemic	1600 mg/m³
	DNEL - Workers - Short term - Inhalation	Effects: Systemic	5380 mg/m³

PNECs

Product/ingredient name	Compartment Detail - Method	Value
m-xylene	Fresh water - Assessment Factors	0.25 mg/l
	Marine water - Assessment Factors	0.25 mg/l
	Sewage Treatment Plant - Assessment Factors	5 mg/l
	Fresh water sediment - Equilibrium Partitioning	14.33 mg/kg dwt
	Marine water sediment - Equilibrium Partitioning	14.33 mg/kg dwt
	Soil - Equilibrium Partitioning	2.41 mg/kg dwt
	Fresh water - Assessment Factors	0.006 mg/l
	Marine water - Assessment Factors	0.001 mg/l
	Fresh water sediment - Equilibrium Partitioning	0.996 mg/kg dwt
	Marine water sediment - Equilibrium Partitioning	0.1 mg/kg dwt
bis-[4-(2,3-epoxipropoxi)phenyl] propane	Soil - Equilibrium Partitioning	0.196 mg/kg dwt
	Sewage Treatment Plant - Assessment Factors	10 mg/l
	Secondary Poisoning - Assessment Factors	11 mg/kg
	Fresh water - Assessment Factors	0.043 mg/l
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and		

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SECTION 8: Exposure controls/personal protection

triethylenetetramine	Marine water - Assessment Factors	0 mg/l
	Sewage Treatment Plant - Assessment Factors	3.84 mg/l
	Fresh water sediment - Equilibrium Partitioning	434.02 mg/kg dwt
	Marine water sediment - Equilibrium Partitioning	43.4 mg/kg dwt
	Soil - Equilibrium Partitioning	86.78 mg/kg dwt
1-methoxy-2-propanol	Fresh water - Assessment Factors	10 mg/l
	Marine water - Assessment Factors	1 mg/l
	Sewage Treatment Plant - Assessment Factors	100 mg/l
	Fresh water sediment - Equilibrium Partitioning	41.6 mg/kg
	Marine water sediment - Equilibrium Partitioning	4.17 mg/kg
	Soil - Equilibrium Partitioning	2.47 mg/kg
o-xylene	Fresh water	0.25 mg/l
	Sediment	14.33 mg/kg
	Soil	2.41 mg/kg
xylene	Sewage Treatment Plant	5 mg/l
	Fresh water	0.327 mg/l
	Marine water	0.327 mg/l
	Sewage Treatment Plant	6.58 mg/l
	Fresh water sediment	12.46 mg/kg dwt
	Marine water sediment	12.46 mg/kg dwt
	Soil	2.31 mg/kg
ethylbenzene	Fresh water - Assessment Factors	0.1 mg/l
	Marine water - Assessment Factors	0.01 mg/l
	Sewage Treatment Plant - Assessment Factors	9.6 mg/l
	Fresh water sediment - Equilibrium Partitioning	13.7 mg/kg dwt
	Marine water sediment - Equilibrium Partitioning	1.37 mg/kg dwt
	Soil - Equilibrium Partitioning	2.68 mg/kg dwt
	Secondary Poisoning	20 mg/kg

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 : Chemical splash goggles and face shield. Use eye protection according to EN 166.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. 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

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SECTION 8: Exposure controls/personal protection

(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	: nitrile neoprene
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. 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	: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and particulate filter P3
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

Colour

Odour

Melting point/freezing point

Boiling point or initial boiling point and boiling range

Flammability

Lower and upper explosion limit

Flash point

Auto-ignition temperature

Decomposition temperature

pH

Viscosity

: Liquid.

: Not available.

: Not available.

: Not determined.

: >37.78°C

: Not determined. There are no data available on the mixture itself.

: Not available.

: Closed cup: 29°C

:

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

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

: Not applicable. insoluble in water.

:

Dynamic (room temperature): Not available.

Kinematic (room temperature): Not available.

Kinematic (40°C): >21 mm²/s

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SECTION 9: Physical and chemical properties

Viscosity

:

> 100 s (ISO 6mm)

Solubility

:

Media	Result
cold water	Not soluble

Partition coefficient n-octanol/ water (log Pow)

:

Not applicable.

Vapour pressure

:

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

Relative density

:

0.97

Particle characteristics

:

Median particle size

:

Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

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

:


Product does not present an oxidizing hazard.

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 nitrogen oxides

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008	
The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly.	
 Causes severe skin burns and eye damage.	
May cause an allergic skin reaction.	
May cause respiratory irritation.	
Acute toxicity	

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SECTION 11: Toxicological information

Product/ingredient name	Result	Dose / Exposure
m-xylene	Rat - Oral - LD50	3523 mg/kg
	Rabbit - Dermal - LD50	12126 mg/kg
	Rat - Inhalation - LC50 Vapour	27124 mg/m³ [4 hours]
bis-[4-(2,3-epoxipropoxy)phenyl] propane	Rabbit - Dermal - LD50	23000 mg/kg
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Rat - Oral - LD50	15000 mg/kg
	Rat - Dermal - LD50	>2000 mg/kg
1-methoxy-2-propanol	Rat - Oral - LD50	>2000 mg/kg
	Rabbit - Dermal - LD50	13 g/kg
	Rat - Oral - LD50	5.2 g/kg
	Rat - Inhalation - LC50 Vapour	>7000 ppm [6 hours]
2,4,6-tris(dimethylaminomethyl) phenol	Rat - Dermal - LD50	1280 mg/kg
	Rat - Oral - LD50	1200 mg/kg
	<u>Toxic effects:</u> Peripheral Nerve and Sensation - Flaccid paralysis without anesthesia (usually neuromuscular blockage) Lung, Thorax, or Respiration - Dyspnea	
benzyl alcohol	Rabbit - Dermal - LD50	>2000 mg/kg
	Rat - Oral - LD50	1200 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	>5 mg/l [4 hours]
o-xylene	Rat - Oral - LD50	3523 mg/kg
	Rabbit - Dermal - LD50	12126 mg/kg
	Rat - Inhalation - LC50 Vapour	27124 mg/m³ [4 hours]
p-xylene	Rat - Oral - LD50	3523 mg/kg
	Rabbit - Dermal - LD50	12126 mg/kg
	Rat - Inhalation - LC50 Vapour	27124 mg/m³ [4 hours]
xylene	Rat - Oral - LD50	4.3 g/kg
	Rabbit - Dermal - LD50	1.7 g/kg
ethylbenzene	Rat - Oral - LD50	3.5 g/kg
	Rabbit - Dermal - LD50	17.8 g/kg
	Rat - Inhalation - LC50 Vapour	17.8 mg/l [4 hours]
ethylenediamine	Rat - Male, Female - Oral - LD50	841 mg/kg
	Rabbit - Male - Dermal - LD50	560 mg/kg
	Rat - Inhalation - LC50 Gas.	6000 ppm [4 hours]
3,6-diazaoctanethylenediamin	Rabbit - Dermal - LD50	1465 mg/kg
	Rat - Oral - LD50	1716 mg/kg

Acute toxicity estimates

Route	ATE value
Oral	9634.26 mg/kg
Dermal	3488.94 mg/kg
Inhalation (vapours)	41.05 mg/l

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

Irritation/Corrosion

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SECTION 11: Toxicological information

Product/ingredient name	Result
m-xylene	Rabbit - Skin - Moderate irritant Amount/concentration applied: 500 mg Duration of treatment/exposure: 24 hours
bis-[4-(2,3-epoxipropoxi)phenyl] propane	Rabbit - Eyes - Redness of the conjunctivae Duration of treatment/exposure: 24 hours Irritation score: 0.4
-	Rabbit - Eyes - Mild irritant Duration of treatment/exposure: 24 hours Fully reversible in 7 days or less
-	Rabbit - Skin - Erythema/Eschar Duration of treatment/exposure: 4 hours Irritation score: 0.8
-	Rabbit - Skin - Oedema Duration of treatment/exposure: 4 hours Irritation score: 0.5
-	Rabbit - Skin - Mild irritant Duration of treatment/exposure: 4 hours
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Human - Skin - Irritant
-	Rabbit - Eyes - Severe irritant
xylene	Rabbit - Skin - Moderate irritant Amount/concentration applied: 500 mg Duration of treatment/exposure: 24 hours

Conclusion/Summary

- Skin : Causes severe burns.
- Eyes : Causes serious eye damage.
- Respiratory : Based on available data, the classification criteria are not met.

Respiratory or skin sensitization

Product/ingredient name	Test	Result
bis-[4-(2,3-epoxipropoxi)phenyl] propane	Mouse - skin	Result: Sensitising
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Mouse - skin	Result: Sensitising
3,6-diazaoctanethylenediamin	Guinea pig - skin OECD 406	Result: Sensitising

Conclusion/Summary

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

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SECTION 11: Toxicological information

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

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
m-xylene	Category 3	-	Respiratory tract irritation
1-methoxy-2-propanol	Category 3	-	Narcotic effects
o-xylene	Category 3	-	Respiratory tract irritation
p-xylene	Category 3	-	Respiratory tract irritation
xylene	Category 3	-	Respiratory tract irritation

Conclusion/Summary :

May cause respiratory irritation.

Specific target organ toxicity (repeated exposure)

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

Conclusion/Summary :

Based on available data, the classification criteria are not met.

Aspiration hazard

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

Conclusion/Summary :

Based on available data, the classification criteria are not met.

Information on likely routes of exposure : Not available.

Potential acute health effects

- Inhalation** : May cause respiratory irritation.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.
- Eye contact** : Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Ingestion** : Adverse symptoms may include the following:
stomach pains

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SECTION 11: Toxicological information

- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness

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

Short term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

Long term exposure


- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

Potential chronic health effects

- General** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : 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** : Prolonged or repeated contact may dry skin and cause irritation. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Exposure to amine vapor has been reported to cause transient corneal edema described as blue haze, halo effect, foggy or blurred vision for several hours. This condition is typically temporary and does not cause permanent visual effects. When the proper eye protection specified in Section 8 is worn, exposure is significantly reduced and the condition has not been observed.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

 The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

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SECTION 12: Ecological information

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

12.1 Toxicity

Product/ingredient name	Result	Species	Dose / Exposure
bis-[4-(2,3-epoxipropoxy)phenyl]propane Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 1-methoxy-2-propanol 2,4,6-tris (dimethylaminomethyl)phenol ethylbenzene	Chronic - NOEC	Daphnia	0.3 mg/l [21 days]
	Acute - LC50 - Fresh water EC10	Daphnia - <i>daphnia magna</i> Algae	1.8 mg/l [48 hours] 1.78 mg/l [72 hours]
	Acute - LC50 - Fresh water	Fish - Goldfish	>4500 mg/l [96 hours]
	Acute - LC50	Daphnia - Daphnia	23300 mg/l [48 hours]
	Acute - LC50	Daphnia	>100 mg/l [48 hours]
	Acute - LC50	Fish	>100 mg/l [96 hours]
	Acute - EC50 - Fresh water	Daphnia	1.8 mg/l [48 hours]
	Chronic - NOEC - Fresh water	Daphnia - <i>Ceriodaphnia dubia</i>	1 mg/l

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

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose / Inoculum
m-xylene 2,4,6-tris (dimethylaminomethyl)phenol o-xylene p-xylene ethylbenzene ethylenediamine	OECD 301F OECD [Ready Biodegradability - Closed Bottle Test] OECD 301F OECD 301F - -	98% [28 days] - Readily 4% [28 days] - Not readily 94% [28 days] - Readily 90% [28 days] - Readily 79% [10 days] - Readily 95% [28 days]	

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
m-xylene	-	-	Readily
bis-[4-(2,3-epoxipropoxy)phenyl]propane	-	-	Not readily
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	-	-	Not readily
2,4,6-tris (dimethylaminomethyl)phenol	-	-	Not readily
benzyl alcohol	-	-	Readily
o-xylene	-	-	Readily
p-xylene	-	-	Readily
xylene	-	-	Readily

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SECTION 12: Ecological information

ethylbenzene	-	-	Readily
ethylenediamine	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
m-xylene	3.2	14.79	Low
1-methoxy-2-propanol	<1	-	Low
2,4,6-tris(dimethylaminomethyl)phenol	0.219	-	Low
benzyl alcohol	0.87	-	Low
o-xylene	3.12	14.13	Low
p-xylene	3.15	14.79	Low
xylene	3.12	7.4 to 18.5	Low
ethylbenzene	3.6	79.43	Low
ethylenediamine	-2.04	-	Low
3,6-diazaoctanethylenediamin	-1.66 to -1.4	-	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logK _{oc}	K _{oc}
m-xylene	2.25	178.277
bis-[4-(2,3-epoxipropoxi)phenyl]propane	4.02	10465.7
1-methoxy-2-propanol	1.02	10.447
2,4,6-tris(dimethylaminomethyl)phenol	2.72	525.589
benzyl alcohol	1.1	12.6442
o-xylene	2.25	178.668
p-xylene	2.41	257.582
ethylbenzene	2.23	170.406
ethylenediamine	0.63	4.24117
3,6-diazaoctanethylenediamin	1.53	33.6474

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

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

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	: The classification of the product may meet the criteria for a hazardous waste.
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.
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	ADN	IMDG	IATA
14.1 UN number or ID number	UN3469	UN3469	UN3469	UN3469
14.2 UN proper shipping name	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE
14.3 Transport hazard class(es)	3 (8)	3 (8)	3 (8)	3 (8)
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	Yes.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Additional information

ADR/RID	: None identified.
Tunnel code	: (D/E)
ADN	: The product is only regulated as an environmentally hazardous substance when transported in tank vessels.
IMDG	: None identified.
IATA	: None identified.

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.
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SECTION 14: Transport information

14.7 Maritime 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](#)

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
 Substance of equivalent concern for human health	ethylenediamine	Recommended	D(2021) 4569-DC	4/12/2023

[Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles](#)

Product/ingredient name	Entry Number (REACH)
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Labelling : Not applicable.

Explosive precursors : Not applicable.


[Ozone depleting substances \(EU 2024/590\)](#)

Not listed.

[Seveso Directive](#)

This product is controlled under the Seveso Directive.

[Danger criteria](#)

Category
 P5c

[National regulations](#)

[References](#)

- : 1. ROZPORZĄDZENIE KOMISJI (UE) 2020/878 z dnia 18 czerwca 2020 r. zmieniające załącznik II do rozporządzenia (WE) nr 1907/2006 Parlamentu Europejskiego i Rady w sprawie rejestracji, oceny, udzielania zezwoleń i stosowanych ograniczeń w zakresie chemikaliów (REACH). (Dz.U.UE 2020 L 203)
2. Rozporządzenie Parlamentu Europejskiego i Rady (WE) nr 1272/2008 z dnia 16 grudnia 2008 r. w sprawie klasyfikacji, oznakowania i pakowania substancji i mieszanin, zmieniające i uchylające dyrektywy 67/548/EWG i 1999/45/WE oraz zmieniające rozporządzenie (WE) nr 1907/2006 (Dz. Urz. UE 2006 L 353, z późn. zm.)
3. Rozporządzenie (WE) nr 1907/2006 Parlamentu Europejskiego i Rady z dnia 18 grudnia 2006 r. w sprawie rejestracji, oceny, udzielania zezwoleń i stosowanych ograniczeń w zakresie chemikaliów (REACH) i utworzenia Europejskiej Agencji Chemikaliów, zmieniające dyrektywę 1999/45/WE oraz uchylające rozporządzenie Rady (EWG) nr 793/93 i rozporządzenie Komisji (WE) nr 1488/94, jak również dyrektywę Rady 76/769/EWG i dyrektywy Komisji 91/155/EWG, 93/67/EWG, 93/105/WE i 2000/21/WE (Dz.Urz.UE 2006 L 396., z późn. zm.)
4. Ustawa z dnia 25 lutego 2011 r. o substancjach chemicznych i ich mieszaninach (t. j. Dz.U. 2022 poz. 1816)
5. Rozporządzenie Ministra Zdrowia z dnia 30 grudnia 2004 r. w sprawie

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SECTION 15: Regulatory information

bezpieczeństwa i higieny pracy związanej z występowaniem w miejscu pracy czynników chemicznych (t.j. Dz.U. 2016 poz. 1488, z późn. zm.)

6. Ustawa z dnia 29 lipca 2005 r. o przeciwdziałaniu narkomanii (t.j. Dz.U. 2023 poz. 1939)

7. Ustawa z dnia 9 października 2015 r. o produktach biobójczych ze zmianami (t.j. Dz.U. 2021 poz. 24)

8. Rozporządzenie Ministra Środowiska z dnia 26 stycznia 2010 r. w sprawie wartości odniesienia dla niektórych substancji w powietrzu (Dz. U.2010, Nr 16, Poz.87)

9. Ustawa z dnia 27 kwietnia 2001 r. Prawo ochrony środowiska. (tj. Dz.U. 2024 poz. 54, z późn. zm.)

10. Rozporządzenie Ministra Pracy i Polityki Społecznej z dnia 12 czerwca 2018 roku w sprawie najważniejszych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy (Dz.U. 2018 poz. 1286 z późn. zm.).

11. Rozporządzenie Ministra Pracy i Polityki Socjalnej z dnia 26 września 1997 r. w sprawie ogólnych przepisów bezpieczeństwa i higieny pracy (t.j. Dz.U. 2003 nr 169 poz.1650, z późn. zm.)"

12. Ustawa z dnia 14 grudnia 2012r. o odpadach (t.j. Dz.U. 2023 poz. 1587 z późn. zm.)

13. Rozporządzenie Ministra Klimatu z dnia 2 stycznia 2020 r. w sprawie katalogu odpadów (Dz.U. 2020 poz. 10)

14. USTAWA z dnia 24 sierpnia 1991 r. o ochronie przeciwpożarowej (tekst jednolity Dz. U.2024 poz. 275, z późn. zm.)

15. Ustawa z dnia 19 sierpnia 2011 r. o przewozie towarów niebezpiecznych (t. j. Dz.U. 2024 poz. 643)

16. Oświadczenie Rządowe z dnia 16 stycznia 2009 r. w sprawie wejścia w życie zmian do załączników A i B Umowy europejskiej dotyczącej międzynarodowego przewozu drogowego towarów niebezpiecznych (ADR), sporządzonej w Genewie dnia 30 września 1957 r. (Dz. U. 2009 Nr 27 poz. 162 wraz z późniejszymi zmianami).

17. Rozporządzenie Ministra Zdrowia i Opieki Społecznej z dnia 30.05.1996 r. w sprawie przeprowadzania badań lekarskich pracowników, zakresu profilaktycznej opieki zdrowotnej nad pracownikami oraz orzeczeń lekarskich wydawanych do celów przewidzianych w kodeksie pracy (t. j. Dz.U. 2023 poz. 607)

18. Rozporządzenie Parlamentu Europejskiego i Rady (UE) 2016/425 z dnia 9 marca 2016 r. w sprawie środków ochrony indywidualnej i uchylenia dyrektywy Rady 89/686/EWG. (Dz.U.UE.L.2016 nr 81)

19. Rozporządzenie Ministra Zdrowia z dnia 2 lutego 2011 r. w sprawie badań i pomiarów czynników szkodliwych dla zdrowia w środowisku pracy (t.j. Dz.U. 2023 poz. 419 z późn.zm.)

20. Rozporządzenie Ministra Rodziny, Pracy i Polityki Społecznej z dnia 12 czerwca 2018 r. w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy (Dz.U. 2018 poz.1286, z późn.zm.)

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
PBT = Persistent, Bioaccumulative and Toxic
vPvB = Very Persistent and Very Bioaccumulative

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ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
IMDG = International Maritime Dangerous Goods
IATA = International Air Transport Association

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

Classification	Justification
Flam. Liq. 3, H226 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method

Full text of abbreviated H statements

H225 H226 H302 H304 H311 H312 H314 H315 H317 H318 H319 H332 H334 H335 H336 H373 H411 H412	Highly flammable liquid and vapour. Flammable liquid and vapour. Harmful if swallowed. May be fatal if swallowed and enters airways. Toxic in contact with skin. Harmful in contact with skin. Causes severe skin burns and eye damage. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.
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Full text of classifications [CLP/GHS]

Acute Tox. 3 Acute Tox. 4 Aquatic Chronic 2 Aquatic Chronic 3 Asp. Tox. 1 Eye Dam. 1 Eye Irrit. 2 Flam. Liq. 2 Flam. Liq. 3 Resp. Sens. 1B Skin Corr. 1B Skin Corr. 1C Skin Irrit. 2 Skin Sens. 1 Skin Sens. 1A Skin Sens. 1B STOT RE 2 STOT SE 3	ACUTE TOXICITY - Category 3 ACUTE TOXICITY - Category 4 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 ASPIRATION HAZARD - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3 RESPIRATORY SENSITISATION - Category 1B SKIN CORROSION/IRRITATION - Category 1B SKIN CORROSION/IRRITATION - Category 1C SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITISATION - Category 1 SKIN SENSITISATION - Category 1A SKIN SENSITISATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
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SECTION 16: Other information

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