SAFETY DATA SHEET

Date of issue/Date of revision

: 00318046

: 9 October 2024

: 30.01 Version

use.

France

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

1.1 Product identifier

Product name

: SIGMASHIELD 880/880GF HARDENER

Product code

Other means of identification

Not available.

1.2 Relevant identified use	s of the substance or mixture and uses advised against
Product use	: Professional applications, Used by spraying.
Use of the substance/ mixture	: 🖉oating.; Hardener.
Uses advised against	: Product is not intended, labelled or packaged for consumer

1.3 Details of the supplier of the safety data sheet

PPG Coatings Belgium BV/SRL Tweemontstraat 104 B-2100 Deurne Belgium Telephone +32-33606311 Fax +32-33606435

e-mail address of person responsible for this SDS

: Product.Stewardship.EMEA@ppg.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Numéro de téléphone d'appel d'urgence : 01 45 42 59 59 (Association ORFILA, organisme agréé prévu au 4ème alinéa de l'article L231-7 du code du travail)

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 Repr. 1B, H360F STOT SE 3, H335 Aquatic Chronic 1, H410 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.

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SECTION 2: Hazards identification

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

2.2 Label elements

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. May damage fertility. Very toxic to aquatic life with long lasting effects.
Precautionary statements	
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. Avoid release to the environment.
Response	: Collect spillage.
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, P273, P391, P403 + P233, P501
Supplemental label elements	: Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Restricted to professional users.
Special packaging requirem	<u>nents</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	: 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.

May cause endocrine disruption.

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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	Туре
₽poxy Amine Resin	CAS: SUB123903	≥25 - ≤50	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317	-	[1]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7	≥10 - ≤25	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]
Propylidynetrimethanol, propoxylated, reaction products with ammonia	REACH #: 01-2119556886-20 EC: 500-105-6 CAS: 39423-51-3	≥10 - ≤16	Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Dam. 1, H318 Aquatic Chronic 2, H411	ATE [Oral] = 500 mg/ kg ATE [Dermal] = 1100 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-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1	≥5.0 - ≤10	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	-	[1] [2]
4,4'-isopropylidenediphenol	REACH #: 01-2119457856-23 EC: 201-245-8 CAS: 80-05-7 Index: 604-030-00-0	≥1.0 - ≤5.0	Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360F STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 10	[1] [2] [3]
m-phenylenebis (methylamine)	REACH #: 01-2119480150-50 EC: 216-032-5 CAS: 1477-55-0	≥1.0 - ≤4.3	Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412 EUH071	ATE [Oral] = 930 mg/ kg ATE [Inhalation (gases)] = 4500 ppm	[1] [2]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥1.0 - ≤5.0	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Inhalation (vapours)] = 17.8 mg/l	[1] [2]
2,4,6-tris	REACH #:	≥0.30 -	Acute Tox. 4, H302	ATE [Oral] = 1200 mg/	[1]
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SECTION 3: Composition/information on ingredients					
(dimethylaminomethyl)	01-2119560597-27	≤2.6	Acute Tox. 4, H312	kg	

phenol EC: 202-013-9 CAS: 90-72-2		Skin Corr. 1C, H314 Eye Dam. 1, H318 See Section 16 for the full text of the H statements declared above.	ATE [Dermal] = 1280 mg/kg		
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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.

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

Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance with endocrine disrupting properties

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

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures

: 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.
: 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.
: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
: No action shall be taken involving any personal risk or without suitable training. 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.
ns and effects, both acute and delayed
<u>cts</u>
: Causes serious eye damage.
: Causes serious eye damage.
Causes serious eye damage.May cause respiratory irritation.
 Causes serious eye damage. May cause respiratory irritation. Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.

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SECTION 4: Firs	at aid measures
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: stomach pains reduced foetal weight increase in foetal deaths skeletal malformations
4.3 Indication of any ir	nmediate 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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Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathir apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to Europea standard EN 469 will provide a basic level of protection for chemical incidents.
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.
Hazardous combustion products	: Decomposition products may include the following materials: carbon oxides nitrogen oxides
Hazards from the substance or mixture	: Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. Ir 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 very 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.
5.2 Special hazards arising f	rom the substance or mixture
Unsuitable extinguishing media	: Do not use water jet.
5.1 Extinguishing media Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.

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SECTION 6: Accidental release measures

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6.1 Personal	precautions,	protective e	quipment ar	ia emergenc	y 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. Collect spillage.
6.3 Methods and material for	co	ontainment 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 spill product.

6.4 Reference to other	: See Section 1 for emergency contact information.
sections	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. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be
	hazardous. Do not reuse container.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Con	mmission Regulation (EU)
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SECTION 7: Handli	ng and storage
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
Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Occupational exposure limits

Product/ingredient n	ame Exposure limit values
x ylene	Ministry of Labor (France, 9/2023) [xylènes, isomères mixtes, purs] Absorbed through skin. STEL 15 minutes: 442 mg/m ³ . STEL 15 minutes: 100 ppm. TWA 8 hours: 221 mg/m ³ . TWA 8 hours: 50 ppm.
2-methylpropan-1-ol	Ministry of Labor (France, 9/2023) TWA 8 hours: 50 ppm. TWA 8 hours: 150 mg/m ³ .
4,4'-isopropylidenediphenol	Ministry of Labor (France, 9/2023) Repr 1B. TWA 8 hours: 2 mg/m ³ . Form: Dust.
m-phenylenebis(methylamine)	Ministry of Labor (France, 9/2023) STEL 15 minutes: 0.1 mg/m ³ .
ethylbenzene	Ministry of Labor (France, 9/2023) Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 88.4 mg/m ³ . STEL 15 minutes: 442 mg/m ³ . STEL 15 minutes: 100 ppm.
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

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SECTION 8: Exposure controls/personal protection

of hazardous substances will also be required.

Product/ingredient name	Туре	Exposure	Value	Population	Effects
xy lene	DNEL	Long term Oral	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	65.3 mg/m³	General population	Local
	DNEL	Long term Inhalation	65.3 mg/m³	General population	Systemic
	DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	260 mg/m ³	General population	Local
	DNEL	Short term Inhalation	260 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	442 mg/m ³	Workers	Local
Drapy didy in a trim other al	DNEL	Short term Inhalation	442 mg/m ³	Workers	Systemic
Propylidynetrimethanol,	DNEL	Long term Dermal	1.6 mg/kg bw/day	Workers	Systemic
propoxylated, reaction					
products with ammonia	DNEL	Long term Inhalation	14.1 mg/m³	Workers	Systemic
benzyl alcohol	DNEL	Long term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5.4 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	8 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Oral	20 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	20 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	22 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	27 mg/m ³	General population	Systemic
	DNEL	Short term Dermal	40 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	110 mg/m ³	Workers	Systemic
2-methylpropan-1-ol	DNEL	Long term Inhalation	55 mg/m ³	General population	Local
, , , , , , , , , , , , , , , , , , ,	DNEL	Long term Inhalation	310 mg/m ³	Workers	Local
4,4'-isopropylidenediphenol	DNEL	Short term Dermal	24 µg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	24 µg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	53 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	53 µg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	66 µg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	66 µg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	1 mg/m ³	General population	Local
	DNEL	Long term Inhalation	1 mg/m ³	General population	Local
	DNEL	Short term Inhalation	1 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	1 mg/m ³	General population	
	DNEL	Short term Inhalation	2 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2 mg/m^3	Workers	Local
	DNEL DNEL	Short term Inhalation	2 mg/m^3	Workers	Systemic Systemic
m phonylopobic(mothylomino)	DNEL	Long term Inhalation	2 mg/m^3	Workers	Systemic
m-phenylenebis(methylamine)	DNEL	Long term Dermal	0.2 mg/m^3	Workers	Local
	DNEL	Long term Inhalation	0.33 mg/kg bw/day 1.2 mg/m³	Workers Workers	Systemic Systemic
ethylbenzene	DMEL	Long term Inhalation	442 mg/m ³	Workers	Local
etityibenzene	DMEL	Short term Inhalation	884 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	15 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	293 mg/m ³	Workers	Local
2,4,6-tris	DNEL	Long term Oral	0.075 mg/kg bw/day	General population	Systemic
(dimethylaminomethyl)phenol		J J J J J J J J J J J J J J J J J J J	······································	1 1	,
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SECTION 8: Exposure controls/personal protection

DNEL	Short term Dermal	0.075 mg/kg bw/day	General population	Systemic
DNEL	Long term Dermal	0.075 mg/kg bw/day	General population	Systemic
DNEL	Short term Inhalation	0.13 mg/m ³	General population	Systemic
DNEL	Long term Inhalation	0.13 mg/m³	General population	Systemic
DNEL	Long term Dermal	0.15 mg/kg bw/day	Workers	Systemic
DNEL	Long term Inhalation	0.53 mg/m³	Workers	Systemic
DNEL	Short term Dermal	0.6 mg/kg bw/day	Workers	Systemic
DNEL	Short term Inhalation	2.1 mg/m ³	Workers	Systemic

PNECs

Product/ingredient name	Туре	Compartment Detail	Value	Method Detail
x ylene	-	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	-
2-methylpropan-1-ol	-	Fresh water	0.4 mg/l	Assessment Factors
	-	Marine water	0.04 mg/l	Assessment Factors
	-	Sewage Treatment Plant	10 mg/l	Assessment Factors
	-	Fresh water sediment	1.56 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	0.156 mg/kg dwt	-
	-	Soil	0.076 mg/kg dwt	Equilibrium Partitioning
4,4'-isopropylidenediphenol	-	Fresh water	0.018 mg/l	Sensitivity Distribution
	-	Marine water	0.018 mg/l	Sensitivity Distribution
	-		320 mg/l	Assessment Factors
	-	Fresh water sediment	1.2 mg/kg dwt	Assessment Factors
	-	Marine water sediment	0.24 mg/kg dwt	Assessment Factors
	-	Soil	3.7 mg/kg dwt	Assessment Factors
ethylbenzene	-	Fresh water	0.1 mg/l	Assessment Factors
	-	Marine water	0.01 mg/l	Assessment Factors
	-		9.6 mg/l	Assessment Factors
	-	Fresh water sediment	13.7 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	1.37 mg/kg dwt	Equilibrium Partitioning
	-	Soil	2.68 mg/kg dwt	Equilibrium Partitioning
	-	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 measu	res
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	

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU)	
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SECTION 8: Exposure controls/personal 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 (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

<u>Appearance</u>	
Physical state	: Liquid.
Colour	: 🗭olourless. [Light]
Odour	: Amine-like.
Melting point/freezing point	: Not determined.
Boiling point or initial boiling point and boiling range	: >37.78°C
Flammability Lower and upper explosion limit	 Not determined. There are no data available on the mixture itself. Not available.
Flash point	: Closed cup: 36°C
Auto-ignition temperature	: 305°C (581°F)
English (GB)	France

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SECTION 9: Physical a	nd	chemical prop	perties						
Decomposition temperature	1	Stable under recom	mended st	orage a	and handling co	onditions	(see Sec	tion 7).	
рН	:	: Not applicable. insoluble in water.							
Viscosity	-	Øynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): >21 mm²/s							
Viscosity	:	> 100 s (ISO 6mm)							
Solubility	:								
Media		Result							
cold water		Not soluble							
Partition coefficient n-octanol/ water (log Pow)	:	Not applicable.							
Vapour pressure	:		Vapour Pressure at 20°C			Vap	Vapour pressure at 50°C		
		Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method	
		2-methylpropan-1-ol	<12.00102	<1.6	DIN EN 13016-2				
Relative density	:	1.02						•	
Particle characteristics									
Median particle size	:	Not applicable.							
9.2 Other information 9.2.1 Information with regard to	o pł	nysical hazard class	es						
Explosive properties	:	The product itself is vapour or dust with a			t the formation	of an ex	olosible n	nixture of	
Oxidising properties	:	Product does not pre	esent an o	xidizing	hazard.				

SECTION 10: Stability and reactivity

SECTION 10: Stabilit	y 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

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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.

 $\overline{\mathcal{C}}$ auses severe skin burns and eye damage.

May cause an allergic skin reaction.

May damage fertility.

May cause respiratory irritation.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
x ylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
Propylidynetrimethanol, propoxylated,	LD50 Dermal	Rabbit	0.4 g/kg	-
reaction products with ammonia				
	LD50 Oral	Rat	0.22 g/kg	-
benzyl alcohol	LC50 Inhalation Dusts and	Rat	>5 mg/l	4 hours
	mists			
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapour	Rat	24.6 mg/l	4 hours
	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/kg	-
4,4'-isopropylidenediphenol	LD50 Dermal	Rabbit	3600 mg/kg	-
	LD50 Oral	Rat	3.25 g/kg	-
m-phenylenebis(methylamine)	LC50 Inhalation Gas.	Rat	700 ppm	1 hours
	LD50 Dermal	Rat - Male,	>3100 mg/kg	-
		Female		
	LD50 Oral	Rat	930 mg/kg	-
ethylbenzene	LC50 Inhalation Vapour	Rat	17.8 mg/l	4 hours
-	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
2,4,6-tris(dimethylaminomethyl)phenol	LD50 Dermal	Rat	1280 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-

Acute toxicity estimates

Route	ATE value
Øral	2115 mg/kg
Dermal	3589.26 mg/kg
Inhalation (gases)	108958.84 ppm
Inhalation (vapours)	51.63 mg/l

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<mark>ixy</mark> lene	Skin - Moderate irritant	Rabbit		24 hours 500 mg	-
m-phenylenebis(methylamine)	Skin - Severe irritant	Rat		4 hours	4 hours

Conclusion/Summary

Skin :	Zauses severe burns.
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Eyes	: 🖉 auses serious eye damage.
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Respiratory : **B**ased on available data, the classification criteria are not met.

Respiratory or skin sensitization

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Product/ingredient name	Route of exposure	Species	Result
-phenylenebis(methylamine)	skin	Mouse	Sensitising

Conclusion/Summary

Skin

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

Mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

May damage fertility.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
xylene 2-methylpropan-1-ol	Category 3 Category 3 Category 3	-	Respiratory tract irritation Respiratory tract irritation Narcotic effects
4,4'-isopropylidenediphenol	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

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

2

Aspiration hazard

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

Conclusion/Summary

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

Information on likely routes of exposure

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

: Not available.

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SECTION 11: Toxicological information

Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: stomach pains reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced foetal weight increase in foetal deaths skeletal malformations
Eye contact	: Adverse symptoms may include the following: pain watering redness
Delayed and immediate eff	ects as well as chronic effects from short and long-term exposure
<u>Short term exposure</u>	
Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	 No known significant effects or critical hazards.
<u>Long term exposure</u>	
Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	 No known significant effects or critical hazards.
Potential chronic health ef	fects
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	: May damage fertility.
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

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SECTION 11: Toxicological information

May cause endocrine disruption.

11.2.2 Other information

Not available.

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	Exposure
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
4,4'-isopropylidenediphenol	Acute LC50 0.885 mg/l Fresh water	Crustaceans	48 hours
	Acute LC50 8.11 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 4.6 mg/l Fresh water	Fish	96 hours
	Chronic NOEC 0.000174 mg/ I Fresh water	Fish	5 months
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh	Daphnia -	-
	water	Ceriodaphnia dubia	
2,4,6-tris(dimethylaminomethyl)phenol	Acute LC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours

Conclusion/Summary

: **W**ery toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product/ingredient name	Test	Result		Dose	Inoculum
€thylbenzene 2,4,6-tris (dimethylaminomethyl)phenol	- OECD 301D Ready Biodegradability - Closed Bottle Test	79 % - Readily - 10 days 4 % - Not readily - 28 da		-	-
Product/ingredient name		Aquatic half-life	Photo	lysis	Biodegradability
vylene benzyl alcohol 4,4'-isopropylidenediphenol ethylbenzene 2,4,6-tris(dimethylaminomethy	l)phenol	- - - - -	- - - -		Readily Readily Readily Readily Not readily

12.3 Bioaccumulative potential

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SECTION 12: Ecological information

Product/ingredient name	LogPow	BCF	Potential	
x ylene	3.12	7.4 to 18.5	Low	
Propylidynetrimethanol, propoxylated, reaction products with ammonia	-1.13	-	Low	
benzyl alcohol	0.87	-	Low	
2-methylpropan-1-ol	1	-	Low	
4,4'-isopropylidenediphenol	3.4	43.65	Low	
m-phenylenebis(methylamine)	0.18	2.69	Low	
ethylbenzene	3.6	79.43	Low	
2,4,6-tris(dimethylaminomethyl)phenol	0.219	-	Low	

12.4 Mobility in soil	
Soil/water partition coefficient (Koc)	: Not available.
Mobility	: Not available.

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

May cause endocrine disruption.

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	
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	:

Hazardous waste

European waste catalogue (EWC)

Waste code	Waste designation		
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances		
Packaging Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.		

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SECTION 13: Disposal considerations

Type of packaging	European waste catalogue (EWC)			
Container	15 01 06	15 01 06 mixed packaging		
Special precautions	taken when h Empty contair residues may Do not cut, we	and its container must be disposed of in a safe way. Care should be andling emptied containers that have not been cleaned or rinsed out. hers or liners may retain some product residues. Vapour from product create a highly flammable or explosive atmosphere inside the container. eld or grind used containers unless they have been cleaned thoroughly oid dispersal of spilt material and runoff and contact with soil, waterways, wers.		

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	ΙΑΤΑ
14.1 UN number or ID number	UN3469	UN3469	UN3469	UN3469
14.2 UN proper shipping name	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE
14.3 Transport hazard class(es)	3 (8)	3 (8)	3 (8)	3 (8)
14.4 Packing group	111	Ξ	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	Not applicable.	(Polyoxy propylene diamine)	Not applicable.

Additional information

ADR/RID	 The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. 		
Tunnel code	: (D/E)		
ADN	: The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.		
IMDG	: The marine pollutant mark is not required when transported in sizes of \leq 5 L or \leq 5 kg.		
ΙΑΤΑ	: The environmentally hazardous substance mark may appear if required by other transportation regulations.		
14.6 Special pree user	cautions for : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.		
14.7 Maritime tra bulk according t instruments	• • • • • • • • • • • • • • • • • • • •		

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture <u>EU Regulation (EC) No. 1907/2006 (REACH)</u>

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
✓oxic to reproduction Endocrine disrupting properties for human health	4,4'-isopropylidenediphenol 4,4'-isopropylidenediphenol	Recommended Recommended	ED/01/2018 ED/01/2018	10/1/2019 10/1/2019
Endocrine disrupting properties for environment	4,4'-isopropylidenediphenol	Recommended	ED/01/2018	10/1/2019

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)
GMASHIELD 880/880GF HARDENER	3
	30
4,4'-isopropylidenediphenol	30
	66

Labelling

: Restricted to professional users.

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

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category P5c E1

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes
4'-isopropylidenediphenol	Ministry of Labor	-	Repr 1B	-
Social Security Code, Articles L 461-1 to L 461-7	 kylene Propylidynetrimethanol, with ammonia benzyl alcohol 2-methylpropan-1-ol ethylbenzene 	Propylidynetrimethanol, propoxylated, reaction prod with ammonia benzyl alcohol 2-methylpropan-1-ol		RG 84 G 49Bis
Reinforced medical surveillance	Act of July 11, 1977 determining the list of activities which require reinforced medical surveillance: not applicable			

English	(GB)
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References

: Reinforced medical surveillance ; Decree no. 2001-97 of 1 February 2001 establishing specific rules for the prevention of risks from carcinogens, mutagens and reprotoxics and amending the Labour code ; Decree no. 2003-1254 of 23 December 2003 relating to prevention of chemical risks and amending the Labour code ; Decree no. 2004-187 of 26 February 2004 on the placing on the market of biocidal products ; Decree no. 88-1231 of 29/12/1988 relating to poisonous preparations and substances. ; Decree no. 95-517 of 15 May 1997, relating to the classification of dangerous waste. ; Labour code article: R231-53 ; Labour code: Occupational air (ventilation, air purification): Art. R 232-5 to R 232-5-14 : Labour code: Prevention of chemical risk: Art.R231-51 and R 231-54 to R 231-54-9 ; Labour code: Prevention of fires; Art.R232-12-13 to R 232-12-29 and R 233-30; Labour code: provisions applicable to women: Art. L 234-3 to L 236-6; Labour code: provisions applicable to young workers: Art. L 234-3 to L 236-6; Art: R234-16 ; Labour code: Sanitary installations: Art. R 232-2 à R 232-2-7 ; Law 76-663 of 19 July 1976 amending and implementing decree of 21 September 1977 relating to classified installations for the protection of the environment; Tables of anticipated professional diseases according to article R461-3 of the labour code

15.2 Chemical safety

: No Chemical Safety Assessment has been carried out.

assessment

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

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	On basis of test data
Skin Corr. 1C, H314	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 1B, H360F	Calculation method
STOT SE 3, H335	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated H statements

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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.			
H335	May cause respiratory irritation.			
H336	May cause drowsiness or dizziness.			
H360F	May damage fertility.			
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			
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B			
Skin Corr 1P	SKIN CORROSION/IRRITATION Category 1R			

<u>History</u>

Skin Corr. 1B

Skin Corr. 1C

Skin Irrit. 2

Skin Sens. 1

STOT SE 3

Skin Sens. 1B STOT RE 2

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Prepared by	: EHS
Version	: 30.01
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SKIN CORROSION/IRRITATION - Category 1B

SKIN CORROSION/IRRITATION - Category 1C

SKIN SENSITISATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE -

SPEČIFÍC TARGET ORGAN TOXICITY - SINGLE EXPOSURE -

SKIN CORROSION/IRRITATION - Category 2

SKIN SENSITISATION - Category 1

Category 2

Category 3

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SECTION 16: Other information

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by us, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.