## **SAFETY DATA SHEET**

Date of issue/Date of revision

: 25 October 2023

Version : 3.01

pPG

**Europe** 

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

1.1 Product identifier

Product name	:	PHENGUARD 965 HARDENER
Product code	:	00444887
Other means of identification		

Not available.

1.2 Relevant identified uses	of t	he substance or mixture and uses advised against
Product use	1	Professional applications, Used by spraying.
Use of the substance/ mixture	1	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 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

#### **Supplier**

+31 20 4075210

## **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 2, H411
The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.
See Section 16 for the full text of the H statements declared above.

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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.

Toxic to aquatic life with long lasting effects.

May damage fertility.

**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	<ul> <li>Dispose of contents and container in accordance with all local, regional, national and international regulations.</li> <li>P280, P210, P273, P391, P403 + P233, P501</li> </ul>
Hazardous ingredients	<ul> <li>xylene</li> <li>2-methylpropan-1-ol</li> <li>2,4,6-tris(dimethylaminomethyl)phenol</li> <li>N-(3-(trimethoxysilyl)propyl)ethylenediamine</li> <li>m-phenylenebis(methylamine)</li> <li>bisphenol A</li> <li>3-aminopropyldimethylamine</li> </ul>
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	ents
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.

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SECTION 2: Hazards identification		
Other hazards which do	: Prolonged or repeated contact may dry skin and cause irritation.	

Other hazards which do not result in classification

May cause endocrine disruption.

## **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
penzyl alcohol	REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5	≥10 - ≤25	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319	ATE [Oral] = 1230 mg/ kg ATE [Inhalation (dusts and mists)] = 1.5 mg/l	[1] [2]
xylene	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]
Formaldehyde, polymer with N,N-dimethyl- 1,3-propanediamine and phenol	CAS: 445498-00-0	≥5.0 - ≤8.8	Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/ kg M [Acute] = 1 M [Chronic] = 1	[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]
2,4,6-tris (dimethylaminomethyl) phenol	REACH #: 01-2119560597-27 EC: 202-013-9 CAS: 90-72-2 Index: 603-069-00-0	≥1.0 - ≤6.4	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]
N-(3-(trimethoxysilyl)propyl) ethylenediamine	EC: 217-164-6 CAS: 1760-24-3	≥1.0 - ≤5.0	Eye Dam. 1, H318 Skin Sens. 1B, H317 STOT SE 3, H335	-	[1]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥1.0 - ≤5.0	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Inhalation (vapours)] = 17.8 mg/l	[1] [2]
m-phenylenebis (methylamine)	REACH #: 01-2119480150-50	≥1.0 - ≤3.3	Acute Tox. 4, H302 Acute Tox. 4, H332	ATE [Oral] = 930 mg/ kg	[1] [2]
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## **SECTION 3: Composition/information on ingredients**

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	EC: 216-032-5 CAS: 1477-55-0		Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412 EUH071	ATE [Inhalation (gases)] = 4500 ppm	
bisphenol A	REACH #: 01-2119457856-23 EC: 201-245-8 CAS: 80-05-7 Index: 604-030-00-0	≤1.6	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]
salicylic acid	REACH #: 01-2119486984-17 EC: 200-712-3 CAS: 69-72-7 Index: 607-732-00-5	≤1.2	Acute Tox. 4, H302 Eye Dam. 1, H318 Repr. 2, H361d	ATE [Oral] = 891 mg/ kg	[1]
3-aminopropyldimethylamine	REACH #: 01-2119486842-27 EC: 203-680-9 CAS: 109-55-7 Index: 612-061-00-6	≤0.30	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 410 mg/ kg ATE [Dermal] = 1100 mg/kg	[1]

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.

<u>Type</u>

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance of equivalent concern

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

#### SUB codes represent substances without registered CAS Numbers.

### **SECTION 4: First aid measures**

4.1 Description of first	aid measures
Eye contact	: 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	<ul> <li>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.</li> </ul>
Skin contact	<ul> <li>Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.</li> </ul>
Ingestion	: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

#### Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 Code : 00444887 Date of issue/Date of revision : 25 October 2023 **PHENGUARD 965 HARDENER SECTION 4: First aid measures 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.
<u>Over-exposure signs/sy</u>	<u>/mptoms</u>
Eye contact	: Adverse symptoms may include the following: pain watering redness
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 imn	nediate medical attention and special treatment needed
Notes to physician	. In case of inhalation of decomposition products in a fire, symptoms may be delayed

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

## **SECTION 5: Firefighting measures**

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

#### 5.2 Special hazards arising from the substance or mixture

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## SECTION 5: Firefighting measures

Hazards from the substance or mixture	: Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products	: Decomposition products may include the following materials: carbon oxides nitrogen oxides metal oxide/oxides Formaldehyde.
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. Collect spillage.
6.3 Methods and material for	containment and cleaning up
Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

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### SECTION 6: Accidental release measures

6.4 Reference to other	1	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.
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** 

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## **SECTION 8: Exposure controls/personal protection**

Product/ingredient name	Exposure limit values		
benzyl alcohol	IPEL (-).		
	TWA: 5 ppm		
	STEL: 10 ppm		
xylene	EU OEL (Europe, 1/2022). [xylene, mixed isomers pure]		
	Absorbed through skin.		
	STEL: 442 mg/m <sup>3</sup> 15 minutes.		
	STEL: 100 ppm 15 minutes.		
	TWA: 221 mg/m <sup>3</sup> 8 hours.		
	TWA: 50 ppm 8 hours.		
2-methylpropan-1-ol	ACGIH TLV (United States, 1/2022).		
	TWA: 152 mg/m <sup>3</sup> 8 hours.		
. () . ()	TWA: 50 ppm 8 hours.		
ethylbenzene	EU OEL (Europe, 1/2022). Absorbed through skin.		
	STEL: 884 mg/m <sup>3</sup> 15 minutes. STEL: 200 ppm 15 minutes.		
	TWA: 442 mg/m <sup>3</sup> 8 hours.		
	TWA: 442 mg/m 8 hours.		
m-phenylenebis(methylamine)	ACGIH TLV (United States, 1/2022). Absorbed through skin.		
m-phenylenebis(methylanine)	C: 0.018 ppm		
bisphenol A	EU OEL (Europe, 1/2022).		
	TWA: 2 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction		
procedures Standard E	should be made to monitoring standards, such as the following: European N 689 (Workplace atmospheres - Guidance for the assessment of exposure on to chemical agents for comparison with limit values and measurement		

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**

Product/ingredient name	Туре	Exposure	Value	Population	Effects
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 <sup>3</sup>	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 <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	27 mg/m³	General population	Systemic
	DNEL	Short term Dermal	40 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	110 mg/m <sup>3</sup>	Workers	Systemic
xylene	DNEL	Short term Inhalation	260 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term Inhalation	260 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	65.3 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Oral	12.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	221 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	442 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	221 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	442 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	65.3 mg/m <sup>3</sup>	General population	Local
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SECTION 8: Exposure	conti	rols/	personal	pro	tectio	n

DNEL         Short term inhalation DNEL         Z00 mg/m³         General population         Systemic           DNEL         Long term inhalation DNEL         Long term inhalation DNEL         12.5 mg/kg bw/day         General population         Systemic           DNEL         Long term Drainal         12.5 mg/kg bw/day         General population         Systemic           DNEL         Long term Dermal         12.5 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         21.1 mg/m³         Workers         Systemic           DNEL         Short term Inhalation         442 mg/m³         Workers         Systemic           2.4.6-ris         DNEL         Long term Inhalation         50 mg/m³         General population         Systemic           DNEL         DNEL         Long term Oral         0.075 mg/kg bw/day         General population         Systemic           (dimethylaminomethyl)phonol         DNEL         Long term Dermal         0.075 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         0.13 mg/m³         General population         Systemic           DNEL         DNEL         Long term Inhalation         0.13 mg/m³         General population         Systemic <td< th=""><th>SECTION 8. Exposure</th><th>COIII</th><th>iois/personal pro</th><th></th><th></th><th></th></td<>	SECTION 8. Exposure	COIII	iois/personal pro			
DNEL         Long term Oral         12.5 mg/kg bw/day         General population         Systemic           DNEL         Long term Oral         12.5 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         22.1 mg/m³         Workers         Systemic           DNEL         Long term Inhalation         22.1 mg/m³         Workers         Systemic           DNEL         Long term Inhalation         22.1 mg/m³         Workers         Systemic           DNEL         Sing term Inhalation         22.1 mg/m³         Workers         Local           DNEL         Long term Inhalation         0.075 mg/kg bw/day         General population         Systemic           2.4.6.4ris         Long term Inhalation         0.075 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         0.13 mg/m³         General population         Systemic           DNEL         Long term Inhalation         0.15 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         0.15 mg/m³         General population         Systemic           DNEL         Long term Inhalation         0.15 mg/m³         General population         Systemic           DNEL		DNEL	Short term Inhalation	260 mg/m <sup>3</sup>	General population	Local
2-methylpropan-1-ol         DNEL         Long term Inhalation DNEL         12.5 mg/kg bw/day 22 mg/m <sup>2</sup> General population Systemic 65.3 mg/m <sup>2</sup> General population Systemic 22 mg/m <sup>2</sup> Systemic 22 mg/m <sup>2</sup> 2-methylpropan-1-ol DNEL         Long term Inhalation DNEL         Stort term Inhalation DNEL         12 mg/m <sup>2</sup> Workers         Systemic           2.4.6-tris (dimethylaminomethyl)phenol         DNEL         Stort term Inhalation DNEL         310 mg/m <sup>2</sup> General population Systemic         Systemic           DNEL         Long term Inhalation DNEL         Stort term Inhalation DNEL         0.075 mg/kg bw/day Ceneral population         Systemic           2.4.6-tris (dimethylaminomethyl)phenol         DNEL         Long term Inhalation DNEL         0.075 mg/kg bw/day DNEL         General population Systemic         Systemic           DNEL         Long term Inhalation DNEL         130 mg/m <sup>3</sup> General population Systemic         Systemic           DNEL         Long term Inhalation DNEL         1.5 mg/kg bw/day DNEL         General population Systemic         Systemic           DNEL         Long term Inhalation DNEL         0.6 mg/m <sup>3</sup> General population DNEL         Systemic           DNEL         Long term Inhalation DNEL         0.6 mg/m <sup>3</sup> General population DNEL         Systemic           DNEL         Long term Inhala		DNEL	Short term Inhalation	260 mg/m <sup>3</sup>	General population	Systemic
2-methylpropan-1-ol         DNEL         Long term Inhalation DNEL         12.5 mg/kg bw/day 22 mg/m <sup>2</sup> General population Systemic 65.3 mg/m <sup>2</sup> General population Systemic 22 mg/m <sup>2</sup> Systemic 22 mg/m <sup>2</sup> 2-methylpropan-1-ol DNEL         Long term Inhalation DNEL         Stort term Inhalation DNEL         12 mg/m <sup>2</sup> Workers         Systemic           2.4.6-tris (dimethylaminomethyl)phenol         DNEL         Stort term Inhalation DNEL         310 mg/m <sup>2</sup> General population Systemic         Systemic           DNEL         Long term Inhalation DNEL         Stort term Inhalation DNEL         0.075 mg/kg bw/day Ceneral population         Systemic           2.4.6-tris (dimethylaminomethyl)phenol         DNEL         Long term Inhalation DNEL         0.075 mg/kg bw/day DNEL         General population Systemic         Systemic           DNEL         Long term Inhalation DNEL         130 mg/m <sup>3</sup> General population Systemic         Systemic           DNEL         Long term Inhalation DNEL         1.5 mg/kg bw/day DNEL         General population Systemic         Systemic           DNEL         Long term Inhalation DNEL         0.6 mg/m <sup>3</sup> General population DNEL         Systemic           DNEL         Long term Inhalation DNEL         0.6 mg/m <sup>3</sup> General population DNEL         Systemic           DNEL         Long term Inhala		DNEL	Long term Inhalation	221 mg/m <sup>3</sup>	Workers	Local
2-methylpropan-1-ol         DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Oral	12.5 mg/kg bw/day	General population	Systemic
2-methylpropan-1-ol         DNEL DNEL DNEL Long term inhalation DNEL Short term inhalation DNEL Long term inhalation DNEL DNEL Long term inhalation DNEL DNEL Long term inhalation DNEL DNEL Long term inhalation DNEL DNEL Long term inhalation DNEL DNEL DNEL Long term inhalation DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Inhalation	65.3 mg/m <sup>3</sup>	General population	Systemic
2-methylpropan-1-ol         DNEL         Long term inhalation DNEL         221 mg/m³         Workers         Systemic           2.4.6-tris         Long term inhalation DNEL         Long term inhalation DNEL         422 mg/m³         Workers         Systemic           2.4.6-tris         DNEL         Short term Inhalation DNEL         0.075 mg/kg bw/day         General population         Systemic           0.75 mg/kg bw/day         General population         Systemic         Systemic           0.75 mg/kg bw/day         General population         Systemic           0.75 mg/kg bw/day         Orter mg/kg bw/day         Workers         Systemic           0.8 mg/kg bw/day         DNEL         Sont term Inhalation         0.1 mg/m³         General population         Systemic           0.75 mg/kg bw/day         DNEL         Sont term Inhalation         0.6 mg/m³         Workers         Systemic           0.75 mg/kg bw/day         General population         Systemic         Somg/m³         General population		DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
2-methylpropan-1-ol         DNEL         Short term inhalation         442 mg/m <sup>2</sup> Workers         Local           2-methylpropan-1-ol         DNEL         Long term Inhalation         55 mg/m <sup>2</sup> General population         Local           2.4,6-tris         Long term Inhalation         0.075 mg/kg bw/day         General population         Systemic           0.11         DNEL         Long term Dermal         0.075 mg/kg bw/day         General population         Systemic           0.12         DNEL         Long term Dermal         0.075 mg/kg bw/day         General population         Systemic           0.12         DNEL         Long term Dermal         0.13 mg/m <sup>2</sup> General population         Systemic           DNEL         Long term Inhalation         0.45 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         0.4 mg/m <sup>2</sup> Workers         Systemic           DNEL         Long term Inhalation         0.4 mg/m <sup>2</sup> Workers         Systemic           DNEL         Long term Inhalation         0.4 mg/m <sup>2</sup> General population         Local           DNEL         Short term Inhalation         0.6 mg/kg bw/day         General population         Local           DNEL         Short te		DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
2-methylpropan-1-olDNEL DNELShort term Inhalation DNEL442 mg/m² Sgm/m² General population 310 mg/m² Downeral populationSystemic Local Local Uorkers2,4,6-tris (dimethylaminomethyl)phenolDNEL DNEL DNELLong term Inhalation DNEL0.075 mg/kg bw/day DNEL Long term Inhalation DNEL DNEL DNEL Long term Inhalation DNEL DNEL DNEL Long term Inhalation DNEL DNEL DNEL Long term Inhalation DNEL Long term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL DNEL Long term Inhalation DNEL DNEL Long term Inhalation DNEL Long term Inhalation DNEL Lon		DNEL	Long term Inhalation	221 mg/m <sup>3</sup>	Workers	Systemic
2-methylpropan-1-ol         DNEL         Long term Inhalation         55 mg/m³         General population         Local           2.4,6-tris         DNEL         Long term Oral         0.075 mg/kg bw/day         General population         Systemic           (dimethylaminomethyl)phenol         DNEL         Short term Inhalation         0.075 mg/kg bw/day         General population         Systemic           DNEL         Long term Dermal         0.075 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         0.13 mg/m³         General population         Systemic           DNEL         Long term Inhalation         0.13 mg/m³         General population         Systemic           DNEL         Long term Inhalation         1.1 mg/m³         General population         Local           N-(3-(trimethoxysilyl)propyl)         DNEL         Long term Inhalation         0.6 mg/m³         Workers         Systemic           DNEL         Short term Inhalation         0.6 mg/m³         General population         Local           DNEL         Long term Oral         0.6 mg/m³         General population         Local           DNEL         Long term Oral         0.6 mg/m³         General population         Systemic           DNEL         Long term I		DNEL	Short term Inhalation	442 mg/m <sup>3</sup>	Workers	Local
Z.4.6-tris (dimethylaminomethyl)phenol         DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Short term Inhalation	442 mg/m <sup>3</sup>	Workers	Systemic
2,4,6-tris (dimethylaminomethyl)phenol         DNEL DNEL         Long term Oral         0.075 mg/kg bw/day         General population         Systemic           (dimethylaminomethyl)phenol         DNEL DNEL         Short term Inhalation DNEL         0.075 mg/kg bw/day         General population         Systemic           (dimethylaminomethyl)phenol         DNEL         Long term Dermal         0.075 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         0.13 mg/m <sup>2</sup> General population         Systemic           DNEL         Long term Inhalation         0.13 mg/m <sup>2</sup> Workers         Systemic           DNEL         Long term Inhalation         0.53 mg/m <sup>2</sup> Workers         Systemic           DNEL         Short term Inhalation         0.6 mg/m <sup>3</sup> Workers         Systemic           DNEL         Short term Inhalation         0.6 mg/m <sup>3</sup> Workers         Systemic           DNEL         Short term Inhalation         0.6 mg/m <sup>3</sup> General population         Systemic           DNEL         Long term Inhalation         70 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         70 mg/kg bw/day         General population         Systemic           DNEL	2-methylpropan-1-ol	DNEL	Long term Inhalation	55 mg/m <sup>3</sup>	General population	Local
(dimethylaminomethyl)phenol     DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DNEL	Long term Inhalation	310 mg/m <sup>3</sup>	Workers	Local
N-(3-(trimethoxyslyl)propyl)DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL Long term Drahalation DNEL DNEL DNEL Long term Drahalation DNEL DNEL DNEL Long term Drahalation DNEL 	2,4,6-tris	DNEL	Long term Oral	0.075 mg/kg bw/day	General population	Systemic
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N+(3-(trimethoxysily))propyl) ethylenediamine         DNEL DNEL         Long term Inhalation DNEL         0.1 mg/m³         General population dend population         Local Local           DNEL DNEL         Short term Inhalation DNEL         Short term Inhalation DNEL         0.6 mg/m³         Workers         Local           Short term Inhalation DNEL         Short term Inhalation DNEL         5.36 mg/m³         General population General population         Local           DNEL         Short term Inhalation DNEL         Long term Oral         8 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         1.6 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         1.6 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         1.6 mg/kg bw/day         General population         Systemic           DNEL         Long term Inhalation         1.6 mg/kg bw/day         Workers         Systemic           DNEL         Long term Inhalation         2.280 mg/m³         Workers         Systemic           DNEL         Long term Inhalation         0.2 mg/m³         Workers         Systemic           DNEL         Long term Inhalation         0.2 mg/m³         Workers         Systemic						•
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DNELLong term Oral0.004 mg/kg bw/dayGeneral populationSystemicDNELShort term Oral0.004 mg/kg bw/dayGeneral populationSystemicDNELShort term Dermal0.0019 mg/kg bw/dayGeneral populationSystemic			-			
DNELShort term Oral0.004 mg/kg bw/dayGeneral populationSystemicDNELShort term Dermal0.0019 mg/kg bw/dayGeneral populationSystemic						•
DNEL Short term Dermal 0.0019 mg/kg bw/day General population Systemic						
English (GB) Europe 9/21		DINEL	Short term Dermai	0.0019 mg/kg bw/day	General population	Systemic
	English (GB)			Europe		9/21

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SECTION 8: Exposure controls/personal protection

CECTION C. Exposure	00110				
	DNEL	Long term Dermal	0.0019 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0.004 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.004 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.031 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.031 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	1 mg/m³	General population	Local
	DNEL	Long term Inhalation	1 mg/m³	General population	Local
	DNEL	Short term Inhalation	1 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	2 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	2 mg/m³	Workers	Local
	DNEL	Short term Inhalation	2 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	2 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	1 mg/m³	General population	Systemic
salicylic acid	DNEL	Long term Oral	1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2.3 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	5 mg/m³	Workers	Local
	DNEL	Long term Inhalation	5 mg/m³	Workers	Systemic
3-aminopropyldimethylamine	DNEL	Long term Inhalation	1.2 mg/m³	Workers	Systemic

### **PNECs**

Product/ingredient name	Туре	Compartment Detail	Value	Method Detail
xylene	-	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
ethylbenzene	-	Fresh water	0.1 mg/l	Assessment Factors
-	-	Marine water	0.01 mg/l	Assessment Factors
	-	Sewage Treatment Plant	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	-
bisphenol A	-	Fresh water	0.018 mg/l	Sensitivity Distribution
	-	Marine water	0.018 mg/l	Sensitivity Distribution
	-	Sewage Treatment Plant	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
3-aminopropyldimethylamine	-	Fresh water	0.034 mg/l	Assessment Factors
	-	Marine water	0.003 mg/l	Assessment Factors
	-	Sewage Treatment Plant	69.5 mg/l	Assessment Factors
	-	Fresh water sediment	0.221 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	0.022 mg/kg dwt	Equilibrium Partitioning
	-	Soil	0.024 mg/kg dwt	Equilibrium Partitioning

English (GB)	Europe	10/2:

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SECTION 8: Exposu	re controls/personal protection
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 meas	ures
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 (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.

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.

Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and

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## **SECTION 9: Physical and chemical properties**

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

.2 Other information							
Median particle size	: Not applicable.						
article characteristics	·			-			
Oxidising properties	: Product does not pr	•		g hazard.			
Explosive properties	: The product itself is vapour or dust with			t the forma	tion of an	explosible n	nixture of
Vapour density	: Highest known valu 1)	e: 3.7 (Air	= 1) (b	benzyl alco	noi). Weię	ghted average	ge: 3.55 (Ai
Relative density	: 1	0 - /					0 //:
Evaporation rate	: Highest known valu butyl acetate	e: 0.84 (et	nylbenz	ene) Weig	hted aver	age: 0.42co	mpared with
	2-methylpropan-1-ol	<12	<1.6	DIN EN 13016-2			
	Ingredient name	mm Hg	kPa	Method	l mm Hg	kPa	Method
		Vapoι	r Press	sure at 20°	C Va	apour pres	sure at 50°C
Vapour pressure	:						
Partition coefficient: n-octanol/ water	: Not applicable.						
cold water	Not soluble						
Media	Result						
Solubility(ies)	:						
/iscosity	: Kinematic (40°C): >						
респисание	: Not applicable. inso		•		.9	(	
Decomposition temperature	: Stable under recom	mended s	orage a	and handlir	a conditio	 ns (see Sec	tion 7).
	2,4,6-tris(dimethylamino	methyl)phen		71	9.6	EU A.15	
	Ingredient name		°C	٥	-	Method	
Auto-ignition temperature							
explosive limits Flash point	: Closed cup: 40°C						
Upper/lower flammability or	: Greatest known ran	ige: Lower	1.3%	Upper: 139	% (benzyl a	alcohol)	
Flammability	: Not available.						
nitial boiling point and boiling range	: >37.78°C						
	data for the followin -52.61°C (-62.7°F)			•	· ·	,	
Melting point/freezing point	: May start to solidify	at the follo	wina te	mperature	: 14°C (57	.2°F) This is	based on
Dour threshold	: Not available.						
Colour Ddour	: Colourless. : Characteristic.						
Physical state	: Liquid.						
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## **SECTION 9: Physical and chemical properties**

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 Formaldehyde. metal oxide/oxides

## **SECTION 11: Toxicological information**

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

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
benzyl alcohol	LC50 Inhalation Dusts and	Rat	>4178 mg/m <sup>3</sup>	4 hours
	mists			
	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1.23 g/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/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	-
2,4,6-tris(dimethylaminomethyl)phenol	LD50 Dermal	Rabbit	1.28 g/kg	-
	LD50 Dermal	Rat	1280 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
N-(3-(trimethoxysilyl)propyl)	LD50 Dermal	Rabbit	>2000 mg/kg	-
ethylenediamine				
	LD50 Oral	Rat	2413 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	-
m-phenylenebis(methylamine)	LC50 Inhalation Gas.	Rat	700 ppm	1 hours
	LD50 Dermal	Rat - Male,	>3100 mg/kg	-
		Female	J J J J J	
	LD50 Oral	Rat	930 mg/kg	-
bisphenol A	LD50 Dermal	Rabbit	3600 mg/kg	_
	LD50 Oral	Rat	3.25 g/kg	-
salicylic acid	LD50 Oral	Rat	0.891 g/kg	-
3-aminopropyldimethylamine	LD50 Dermal	Rabbit	>1000 mg/kg	-
	LD50 Oral	Rat	410 mg/kg	-

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

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### **SECTION 11: Toxicological information**

Irritation/Corrosion							
Product/ingredient name	Res	ult	Specie	s Score	Exposure	Observation	
xylene 2,4,6-tris(dimethylaminomethyl)phenol m-phenylenebis(methylamine)	Skin - Moder Skin - Visible Skin - Sever	e necrosis	Rabbit Rabbit Rat		24 hours 500 mg 4 hours 4 hours	- 7 days 4 hours	
Conclusion/Summary							
Skin : There ar	e no data availa	able on the r	nixture its	elf.			
Eyes : There ar	e no data availa	able on the r	nixture its	elf.			
Respiratory : There ar	e no data availa	able on the r	nixture its	elf.			
<u>Sensitisation</u>							
Product/ingredient name		Route expos		Speci	es F	Result	
m-phenylenebis(methylamine)		skin	М	louse	Sensitis	Sensitising	
Respiratory: There aMutagenicityConclusion/Summary: There aCarcinogenicityConclusion/Summary: There aReproductive toxicityConclusion/Summary: There aTeratogenicity	re no data avail re no data avail <u>kposure)</u>	able on the able on the able on the able on the	mixture its mixture its mixture its mixture its	self. self. self.			
Product/ingredient nam	le	Catego	ory	Route of exposure	-	organs	
xylene 2-methylpropan-1-ol N-(3-(trimethoxysilyl)propyl)ethylenediam	iine	Category Category Category Category	/3 - /3 /3 -		Respiratory tr Respiratory tr Narcotic effec Respiratory tr	act irritation ets act irritation	
bisphenol A		Category	/3 -		Respiratory tr	act irritation	

#### Specific target organ toxicity (repeated exposure)

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

#### **Aspiration hazard**

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

Information on likely : Not available.

routes of exposure

Potential acute health effects

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	-	

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SECTION 11: Toxico	ogical information
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.
	vsical, chemical and toxicological characteristics
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 effe	cts as well as chronic effects from short and long-term exposure
Short term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health effe	<u>ects</u>
Not available.	
Conclusion/Summary	: Not available.
General	: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: May damage fertility.
Other information	: Not available.

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### **SECTION 11: Toxicological 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. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C/140F. 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**

May cause endocrine disruption.

#### **11.2.2 Other information**

Not available.

### **SECTION 12: Ecological information**

#### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
2,4,6-tris(dimethylaminomethyl)phenol	Acute LC50 175 mg/l	Fish	96 hours
N-(3-(trimethoxysilyl)propyl)ethylenediamine	EC50 597 mg/l	Fish	96 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
bisphenol A	Acute LC50 0.885 mg/l Fresh water	Crustaceans	48 hours
	Acute LC50 8.11 mg/l Fresh water	Daphnia - <i>Daphnia</i> <i>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
salicylic acid	Acute EC50 1147.57 mg/l Fresh water	Daphnia - <i>Daphnia</i> <i>Iongispina</i> - Neonate	48 hours
	Chronic NOEC 5.6 mg/l Fresh water	Daphnia - <i>Daphnia</i> <i>magna</i> - Neonate	21 days
3-aminopropyldimethylamine	Acute LC50 122 mg/l	Fish	96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
ethylbenzene 3-aminopropyldimethylamine	- OECD 301D	79 % - Readily - 10 days 69 % - Readily - 20 days	-	-

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

English (	GB)
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## **SECTION 12: Ecological information**

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
benzyl alcohol	-	-	Readily
xylene	-	-	Readily
ethylbenzene	-	-	Readily
bisphenol A	-	-	Readily
3-aminopropyldimethylamine	-	-	Readily

#### 12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
benzyl alcohol	0.87	-	Low
xylene	3.12	7.4 to 18.5	Low
2-methylpropan-1-ol	1	-	Low
2,4,6-tris(dimethylaminomethyl)phenol	0.219	-	Low
ethylbenzene	3.6	79.43	Low
m-phenylenebis(methylamine)	0.18	2.69	Low
bisphenol A	3.4	43.65	Low
salicylic acid	2.21 to 2.26	-	Low
3-aminopropyldimethylamine	-0.352	-	Low

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

#### 12.5 Results of PBT and vPvB assessment

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

#### 12.6 Endocrine disrupting properties

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 method	ls
Product	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Hazardous waste	: Yes.
E	

European waste catalogue (EWC)

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## **SECTION 13: Disposal considerations**

Waste code	Waste designation	
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances	
Packaging		
Methods of disposal	<ul> <li>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.</li> </ul>	
Type of packaging	European waste catalogue (EWC)	
Container	15 01 06 mixed packaging	
Special precautions	<ul> <li>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.</li> </ul>	

## 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, 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		III	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.	(Formaldehyde, polymer with N,N- dimethyl- 1,3-propanediamine and phenol, bisphenol A)	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.

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## 14. Transport information

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

### 14.7 Maritime transport in bulk according to IMO

: Not applicable.

instruments

### **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
Toxic to reproduction Endocrine disrupting	4,4'-isopropylidenediphenol 4,4'-isopropylidenediphenol	Recommended Recommended	ED/01/2018 ED/01/2018	10/1/2019 10/1/2019
properties for human health	.,			
Endocrine disrupting properties for environment	4,4'-isopropylidenediphenol	Recommended	ED/01/2018	10/1/2019

#### Annex XVII - Restrictions : Restricted to professional users.

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

**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 E2	
EZ	

#### **15.2 Chemical safety** assessment

: No Chemical Safety Assessment has been carried out.

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## 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

#### Full text of abbreviated H statements

Eye Irrit. 2

Flam. Liq. 2

Flam. Liq. 3

Repr. 1B

Repr. 2

	—
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.
H361d	Suspected of damaging the unborn child.
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/GH	<u>IS]</u>
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) ĂQUATIC 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

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

FLAMMABLE LIQUIDS - Category 2

FLAMMABLE LIQUIDS - Category 3

**REPRODUCTIVE TOXICITY - Category 1B** 

**REPRODUCTIVE TOXICITY - Category 2** 

 Skin Corr. 1B
 SKIN CORROSION/IRRITATION - Category 1B

 Skin Corr. 1C
 SKIN CORROSION/IRRITATION - Category 1C

 Skin Irrit. 2
 SKIN CORROSION/IRRITATION - Category 2

 Skin Sens. 1
 SKIN SENSITISATION - Category 1

 English (GB)

 Europe

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SECTION 16: Othe	r information	
Skin Sens. 1B STOT RE 2		SKIN SENSITISATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE Category 2
STOT SE 3		SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
<u>History</u>		
Date of issue/ Date of revision	: 25 October 2023	3
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