## SAFETY DATA SHEET

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

1.1 Product identifier

Product name : PHENGUARD 610/780/930/935/940 HARDENER

**Product code** : 000001179358

Product type : Liquid.

Other means of : 00138908; 00138909

identification

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

**Product use** : Professional applications, Used by spraying.

**Use of the substance/** 

mixture

: Coating.

Uses advised against

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

#### 1.3 Details of the supplier of the safety data sheet

PPG 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 UK CLP/GHS

Fam. Liq. 3, H226 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 2, H361d STOT SE 3, H335 Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

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

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

### 2.2 Label elements

**Hazard pictograms** 









Signal word : Danger

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### **SECTION 2: Hazards identification**

**Hazard statements** 

: Mammable liquid and vapour.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction. May cause respiratory irritation.

Suspected of damaging the unborn child. Harmful 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.

Response

: IF INHALED: Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

**Storage** 

: Not applicable.

**Disposal** 

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

and international regulations.

P280, P210, P304 + P310, P301 + P310, P303 + P361 + P353, 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

: Not applicable.

**Special packaging requirements** 

**Containers to be fitted** with child-resistant

fastenings

: Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

**Product meets the criteria** for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: 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.

### **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
<b>x</b> ýlene	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	[1] [2]
3-aminopropyldiethylamine	EC: 203-236-4 CAS: 104-78-9	≥10 - ≤18	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 3, H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Repr. 2, H361d	[1]

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### **SECTION 3: Composition/information on ingredients**

SECTION 3. Compositi		ngreulents		
benzyl alcohol	REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5	≥10 - ≤13	STOT SE 3, H335 Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317	[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]
m-phenylenebis(methylamine)	REACH #: 01-2119480150-50 EC: 216-032-5 CAS: 1477-55-0	≥1.0 - ≤4.9	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	[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	[1] [2]
N-(3-(trimethoxysilyl)propyl) ethylenediamine	REACH #: 01-2119970215-39 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]
salicylic acid	REACH #: 01-2119486984-17 EC: 200-712-3 CAS: 69-72-7 Index: 607-732-00-5	<1.0	Acute Tox. 4, H302 Eye Dam. 1, H318 Repr. 2, H361d	[1]
toluene	REACH #: 01-2119471310-51 EC: 203-625-9 CAS: 108-88-3 Index: 601-021-00-3	≤0.30	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304	[1] [2]
			See Section 16 for the full text of the H statements declared above.	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

### <u>Type</u>

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

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

SUB codes represent substances without registered CAS Numbers.

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

### 4.1 Description of first aid measures

**Eye contact**: Check for and remove any contact lenses. Immediately flush eyes with running water for

at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

**Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is

irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained

personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water

or use recognised skin cleanser. Do NOT use solvents or thinners.

**Ingestion**: If swallowed, seek medical advice immediately and show the container or label. Keep

person warm and at rest. Do NOT induce vomiting.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it

is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing

thoroughly with water before removing it, or wear gloves.

### 4.2 Most important symptoms and effects, both acute and delayed

### Potential acute health effects

Eye contact : Causes serious eye damage.Inhalation : May cause respiratory irritation.

**Skin contact**: Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.

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

#### **Over-exposure signs/symptoms**

**Eye contact**: Adverse symptoms may include the following:

pain watering redness

**Inhalation** : Adverse symptoms may include the following:

respiratory tract irritation

coughing

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 immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments**: No specific treatment.

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### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media

: Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing** 

: Do not use water jet.

media

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

Hazards from the substance or mixture : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous combustion** products

: Decomposition products may include the following materials:

carbon oxides nitrogen oxides metal oxide/oxides Formaldehyde.

#### 5.3 Advice for firefighters

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective** equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

#### 6.3 Methods and material for containment and cleaning up

**Small spill** 

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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### SECTION 6: Accidental release measures

### Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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## 6.4 Reference to other sections

: See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

### **SECTION 7: Handling and storage**

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

### 7.1 Precautions for safe handling

#### **Protective measures**

Eut 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.

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### SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

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).

#### **Occupational exposure limits**

Product/ingredient name	Exposure limit values
<b>K</b> ylene	EH40/2005 WELs (United Kingdom (UK), 1/2020) [xylene, o-,m-,p-or mixed isomers] Absorbed through skin.
	STEL 15 minutes: 441 mg/m³.
	TWA 8 hours: 50 ppm.
	TWA 6 Hours: 30 ppm. TWA 8 hours: 220 mg/m³.
	STEL 15 minutes: 100 ppm.
2-methylpropan-1-ol	EH40/2005 WELs (United Kingdom (UK), 1/2020)
2 month opan i or	STEL 15 minutes: 231 mg/m³.
	STEL 15 minutes: 75 ppm.
	TWA 8 hours: 154 mg/m³.
	TWA 8 hours: 50 ppm.
ethylbenzene	EH40/2005 WELs (United Kingdom (UK), 1/2020) Absorbed
	through skin.
	STEL 15 minutes: 552 mg/m³.
	STEL 15 minutes: 125 ppm.
	TWA 8 hours: 100 ppm.
	TWA 8 hours: 441 mg/m³.
toluene	EH40/2005 WELs (United Kingdom (UK), 1/2020) Absorbed
	through skin.
	STEL 15 minutes: 384 mg/m³.
	TWA 8 hours: 191 mg/m³.
	TWA 8 hours: 50 ppm.
	STEL 15 minutes: 100 ppm.

### **Biological exposure indices**

Product/ingredient name	Exposure indices
<b>x</b> ylene	EH40/2005 BMGVs (United Kingdom (UK), 8/2018) [Xylene, o-, m-,
	p- or mixed isomers] BGV: 650 mmol/mol creatinine, methyl hippuric acid [in urine]. Sampling time: post shift.

## procedures

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

### **DNELs/DMELs**

Product/ingredient name	Type	Exposure	Value	Population	Effects
<b>x</b> ylene	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/m³	Workers	Local
	DNEL	Long term Inhalation	221 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	260 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	260 mg/m <sup>3</sup>	General population	
	DNEL	Short term Inhalation	442 mg/m³	Workers	Local
	DNEL	Short term Inhalation	442 mg/m³	Workers	Systemic

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

DEGITION OF EXPOSURE	COIIL	iois/personai pro			
	DNEL	Long term Inhalation	24.7 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	3.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.8 mg/m³	General population	Systemic
	DNEL	Long term Oral	0.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1.8 mg/m³	General population	Systemic
	DNEL	Long term Dermal	3.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	24.7 mg/m <sup>3</sup>	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 <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/m³	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/m³	Workers	Systemic
	DNEL	Long term Inhalation	55 mg/m³	General population	Local
	DNEL	Long term Inhalation	310 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	0.2 mg/m³	Workers	Local
. , , ,	DNEL	Long term Dermal	0.33 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.2 mg/m <sup>3</sup>	Workers	Systemic
ethylbenzene	DMEL	Long term Inhalation	442 mg/m³	Workers	Local
<b>y</b>	DMEL	Short term Inhalation	884 mg/m³	Workers	Systemic
	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	15 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	77 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	293 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	0.1 mg/m³	General population	Local
,	DNEL	Long term Inhalation	0.6 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	· ·	General population	Systemic
	DNEL	Short term Inhalation			Local
	DNEL	Short term Inhalation	•	Workers	
	DNEL			General population	Systemic
	DNEL	•		Workers	Systemic
	DNEL	_	•		Systemic
	DNEL		2.3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral		General population	Systemic
	DNEL	Long term Dermal		General population	Systemic
	DNEL	Short term Oral			Systemic
	DNEL	Long term Inhalation	4 mg/m³	General population	Systemic
	DNEL	Long term Inhalation		Workers	
	DNEL			Workers	Systemic
toluene	DNEL			General population	Systemic
	DNEL		0 0		Local
	DNEL				Systemic
	DNEL			Workers	Local
	DNEL	_		Workers	Systemic
	DNEL				Systemic
		Short term Inhalation			Local
	DNEL	Short term Inhalation			Systemic
				Workers	Systemic
	DNEL	Short term Inhalation		Workers	Local
			•	Workers	Systemic
salicylic acid toluene	DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL	Short term Inhalation Short term Inhalation Long term Inhalation Long term Inhalation Short term Inhalation Short term Inhalation Long term Dermal Long term Dermal Short term Oral Long term Inhalation Short term Inhalation Long term Dermal	4 mg/kg bw/day 4 mg/m³ 5.36 mg/m³ 130 mg/m³ 26400 mg/m³ 2.3 mg/kg bw/day 1 mg/kg bw/day 1 mg/kg bw/day 4 mg/kg bw/day 4 mg/kg bw/day 5 mg/m³ 5 mg/m³ 5 mg/m³ 5 mg/m³ 8.13 mg/kg bw/day 56.5 mg/m³ 192 mg/m³ 192 mg/m³ 226 mg/kg bw/day 226 mg/m³ 384 mg/kg bw/day 384 mg/m³	General population Workers General population Workers General population General population General population General population Workers Workers General population General population General population General population Workers Workers General population General population General population General population General population General population Workers Workers Workers	Local Systemic Systemic Systemic Systemic Systemic Systemic Systemic Local

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

Product/ingredient name	Compartment Detail	Value	Method Detail
<b>x</b> 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	-
3-aminopropyldiethylamine	Fresh water	0.03 mg/l	Assessment Factors
	Marine water	0.003 mg/l	Assessment Factors
	Sewage Treatment Plant	10 mg/l	Assessment Factors
	Fresh water sediment	0.418 mg/kg dwt	Equilibrium Partitioning
	Fresh water sediment	0.042 mg/kg dwt	Equilibrium Partitioning
	Soil	0.066 mg/kg dwt	Equilibrium Partitioning
2-methylpropan-1-ol	Fresh water	0.4 mg/l	Assessment Factors
	Marine water	0.04 mg/l	Assessment Factors
	Sewage Treatment Plant		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	-
toluene	Fresh water	0.68 mg/l	Sensitivity Distribution
	Marine water	0.68 mg/l	Sensitivity Distribution
	Sewage Treatment Plant	13.61 mg/l	Sensitivity Distribution
	Fresh water sediment	16.39 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	16.39 mg/kg dwt	-

### 8.2 Exposure controls

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### **Individual protection measures**

**Hygiene measures** 

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection Skin protection

**Hand protection** 

: Chemical splash goggles and face shield.

: 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

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### SECTION 8: Exposure controls/personal protection

product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

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 antistatic protective clothing. For the greatest protection from static discharges, clothing

should include anti-static overalls, boots and gloves.

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.

Respirator selection must be based on known or anticipated exposure levels, the **Respiratory protection** 

> hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and particulate

filter P3

**Environmental exposure** 

controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment

will be necessary to reduce emissions to acceptable levels.

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

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

#### 9.1 Information on basic physical and chemical properties

#### **Appearance**

**Physical state** : Liquid. Colour Colourless. **Odour** : Amine-like. Not available. **Odour threshold** 

**Melting point/freezing point** 

Initial boiling point and

boiling range

: >37.78°C (>100°F)

Flammability (solid, gas) ! liquid

**Upper/lower flammability or** 

explosive limits

: Not available.

: Closed cup: 28°C (82.4°F) Flash point

: 225°C (437°F) **Auto-ignition temperature** pН : Not applicable.

Not applicable. insoluble in water.

: Dynamic (room temperature): Not available. **Viscosity** 

Kinematic (room temperature): Not available.

Kinematic (40°C): >21 mm<sup>2</sup>/s

Solubility(ies)

Media	Result
cold water	Not soluble

: No. Miscible with water

Partition coefficient: n-octanol/ : Not applicable.

Vapour pressure

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

	Vapour Pressure at 20°C			Vap	our pressu	re 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

0.93

**Explosive properties** 

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

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vapour or dust with air is possible.

Oxidising properties

Particle characteristics

: Product does not present an oxidizing hazard.

Particle characteristics

Median particle size

: Not applicable.

### **SECTION 10: Stability and reactivity**

10.1 Reactivity

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

10.2 Chemical stability

: The product is stable.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

: 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 toxicological effects

### **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
<b>x</b> ylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
3-aminopropyldiethylamine	LD50 Dermal	Rabbit	524 mg/kg	-
	LD50 Oral	Rat	550 mg/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	-
m-phenylenebis	LC50 Inhalation Gas.	Rat	700 ppm	1 hours
(methylamine)				
	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	-
N-(3-(trimethoxysilyl)propyl) ethylenediamine	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	2413 mg/kg	-

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

salicylic acid	LD50 Oral	Rat	0.891 g/kg	-
toluene	LC50 Inhalation Vapour	Rat	49 g/m³	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 Oral	Rat	5580 mg/kg	-

Conclusion/Summary
Acute toxicity estimates

: There are no data available on the mixture itself.

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
MENGUARD 610/780/930/935/940 HARDENER	2188.7	2173.4	100446.4	42.2	N/A
xylene	4300	1700	N/A	11	N/A
3-aminopropyldiethylamine	550	524	N/A	N/A	N/A
benzyl alcohol	1200	N/A	N/A	N/A	N/A
2-methylpropan-1-ol	2830	2460	N/A	24.6	N/A
m-phenylenebis(methylamine)	930	N/A	4500	N/A	N/A
ethylbenzene	3500	17800	N/A	17.8	N/A
N-(3-(trimethoxysilyl)propyl)ethylenediamine	2413	N/A	N/A	N/A	N/A
salicylic acid	891	N/A	N/A	N/A	N/A
toluene	5580	8390	N/A	49	N/A

### **Irritation/Corrosion**

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

**Conclusion/Summary**: Not available.

Skin
 There are no data available on the mixture itself.
 Eyes
 There are no data available on the mixture itself.
 Respiratory
 There are no data available on the mixture itself.

### **Sensitisation**

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

**Conclusion/Summary** 

Skin: There are no data available on the mixture itself.Respiratory: There are no data available on the mixture itself.

**Mutagenicity** 

**Conclusion/Summary** 

: There are no data available on the mixture itself.

**Carcinogenicity** 

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

Reproductive toxicity

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

**Teratogenicity** 

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

**Specific target organ toxicity (single exposure)** 

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

Product/ingredient name	Category	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
3-aminopropyldiethylamine	Category 3	-	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
N-(3-(trimethoxysilyl)propyl)ethylenediamine	Category 3	-	Respiratory tract irritation
toluene	Category 3	-	Narcotic effects

### Specific target organ toxicity (repeated exposure)

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

### **Aspiration hazard**

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

Information on likely routes : Not available.

of exposure

### 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.

: No known significant effects or critical hazards. Ingestion

### Symptoms related to the physical, chemical and toxicological characteristics

: Adverse symptoms may include the following: **Eye contact** 

> 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

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

**Ingestion** : Adverse symptoms may include the following:

stomach pains reduced foetal weight

increase in foetal deaths skeletal malformations

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

**Short term exposure** 

Potential immediate

effects

: Not available.

Potential delayed effects

: Not available.

**Long term exposure** 

**Potential immediate** 

: Not available.

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General

Conclusion/Summary

: 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**: Suspected of damaging the unborn child.

Other information : Not available.

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

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
3-aminopropyldiethylamine	Acute EC50 34 mg/l	Algae	72 hours
,	Acute EC50 30.16 mg/l	Daphnia	48 hours
	Acute LC50 146.6 mg/l	Fish	96 hours
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	_
N-(3-(trimethoxysilyl)propyl) ethylenediamine	EC50 597 mg/l	Fish	96 hours
salicylic acid	Acute EC50 1147.57 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia longispina</i> - Neonate	48 hours
	Chronic NOEC 5.6 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia</i> magna - Neonate	21 days

**Conclusion/Summary**: Not available.

#### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
3-aminopropyldiethylamine	OECD 301A	90 to 100 % - Readily - 28	-	-
	Ready	days		
	Biodegradability -			
	DOC Die-Away			
	Test			
ethylbenzene	-	79 % - Readily - 10 days	-	-

Conclusion/Summary : Not available.

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

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>x</b> ylene	-	-	Readily
3-aminopropyldiethylamine	-	-	Readily
benzyl alcohol	-	-	Readily
ethylbenzene	-	-	Readily
toluene	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
benzyl alcohol 2-methylpropan-1-ol m-phenylenebis (methylamine) ethylbenzene	3.12 0.87 1 0.18	7.4 to 18.5 - - 2.69 79.43	Low Low Low Low
salicylic acid toluene	2.21 to 2.26 2.73	- 8.32	Low 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 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**

#### Waste catalogue

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

#### **Packaging**

**Methods of disposal** 

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

Type of packaging	Waste catalogue	
Container	15 01 06	mixed packaging

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### SECTION 13: Disposal considerations

**Special precautions** 

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

### **SECTION 14: Transport information**

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN3470	UN3470	UN3470	UN3470
14.2 UN proper shipping name	PAINT, CORROSIVE, FLAMMABLE	PAINT, CORROSIVE, FLAMMABLE	PAINT, CORROSIVE, FLAMMABLE	PAINT, CORROSIVE, FLAMMABLE
14.3 Transport hazard class(es)	8 (3)	8 (3)	8 (3)	8 (3)
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	Yes.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.

#### **Additional information**

ADR/RID : None identified.

**Tunnel code** : (D/E)

**ADN** : The product is only regulated as an environmentally hazardous substance when transported in tank

vessels.

**IMDG** : None identified. : None identified. IATA

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

the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments

: Not available.

### **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture **UK (GB)/REACH** 

Annex XIV - List of substances subject to authorisation

**Annex XIV** 

None of the components are listed.

Substances of very high concern

None of the components are listed.

**Explosive precursors** : Not applicable.

Ozone depleting substances

Not listed.

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

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### **SECTION 15: Regulatory information**

Product/ingredient name	Entry Number (REACH)
MENGUARD 610/780/930/935/940 HARDENER	3
toluene	48

Labelling : Not applicable.

**Seveso Directive** 

This product is controlled under the Seveso Directive.

### **Danger criteria**

Category P5c

### **SECTION 16: Other information**

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate

GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and

Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019

No. 720 and amendments

DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level

EUH statement = GB CLP-specific Hazard statement

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

#### Procedure used to derive the classification

Classification	Justification
Mam. Liq. 3, H226	On basis of test data
Skin Corr. 1B, H314	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 2, H361d	Calculation method
STOT SE 3, H335	Calculation method
Aquatic Chronic 3, H412	Calculation method

### Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
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.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

### **Full text of classifications**

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### **SECTION 16: Other information**

Acute Tox. 3 ACUTE TOXICITY - Category 3
Acute Tox. 4 ACUTE TOXICITY - Category 4

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. 2 REPRODUCTIVE TOXICITY - Category 2
Skin Corr. 1B SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2

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

STOT RE 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

#### **History**

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#### **Disclaimer**

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