# **SAFETY DATA SHEET**

Date of issue/Date of revision : 9 November 2022 Version : 1



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

1.1 Product identifier

Product name : SIGMASHIELD 880 BASE BS 10B25

Product code : 00439924

Product description :

Product type : Liquid.

Other means of : Not available.

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

Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Muta. 2, H341

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 : Warning

English (GB) United Kingdom (UK) 1/16

SIGMASHIELD 880 BASE BS 10B25

# **SECTION 2: Hazards identification**

Hazard statements

: Flammable liquid and vapour.

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

Suspected of causing genetic defects.

Harmful to aquatic life with long lasting effects.

#### **Precautionary statements**

**Prevention** 

Do not handle until all safety precautions have been read and understood. 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. Avoid breathing vapour.

Response : Not applicable.
Storage : Not applicable.

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

and international regulations.

P202, P280, P210, P273, P261, P501

Supplemental label

elements

**Disposal** 

: Contains epoxy constituents. May produce an allergic reaction.

Warning! Hazardous respirable droplets may be formed when sprayed. Do not

breathe spray or mist.

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**

### Mixture

### 3.2 Mixtures

Product/ingredient name	Identifiers	%	Classification	Type
epoxy resin (MW ≤ 700)	REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6	≥10 - ≤22	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥5.0 - ≤10	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304	[1] [2]
Epoxy Resin (700 <mw<=1100)< td=""><td>CAS: 25036-25-3</td><td>≥1.0 - ≤5.0</td><td>Skin Irrit. 2, H315 Eye Irrit. 2, H319</td><td>[1]</td></mw<=1100)<>	CAS: 25036-25-3	≥1.0 - ≤5.0	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]

English (GB) United Kingdom (UK) 2/16

SIGMASHIELD 880 BASE BS 10B25

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

-				
Phenol, methylstyrenated	REACH #:	≥1.0 - ≤5.0	Skin Sens. 1, H317 Skin Irrit. 2, H315	[1]
	01-2119555274-38 EC: 270-966-8 CAS: 68512-30-1		Skin Sens. 1, H317 Aquatic Chronic 3, H412	
2-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1	≥1.0 - <3.0	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	[1] [2]
2,3-epoxypropyl neodecanoate	Index: 603-108-00-1 REACH #: 01-2119431597-33 EC: 247-979-2 CAS: 26761-45-5	≥0.10 - ≤2.1	Skin Sens. 1, H317 Muta. 2, H341 Aquatic Chronic 2, H411	[1]
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	REACH #: 01-0000017900-73 EC: 432-840-2 CAS: 220926-97-6 Index: 616-201-00-7	≥1.0 - ≤5.0	Acute Tox. 4, H332 STOT RE 2, H373 (lungs) (inhalation) Aquatic Chronic 4, H413	[1]
			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.

# **Type**

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

This mixture contains ≥ 1% of titanium dioxide. The Annex VI classification of titanium dioxide does not apply to this mixture according to Note 10.

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** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

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.

: 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. 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

Ingestion

**Eye contact** : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

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

Ingestion : No known significant effects or critical hazards.

SIGMASHIELD 880 BASE BS 10B25

# **SECTION 4: First aid measures**

## Over-exposure signs/symptoms

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

pain or irritation watering redness

Inhalation : No specific data.

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

irritation redness dryness cracking

**Ingestion**: No specific data.

# 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.

# 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

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 sulfur oxides

halogenated compounds metal oxide/oxides

#### 5.3 Advice for firefighters

Special protective actions for fire-fighters

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

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

# **SECTION 6: Accidental release measures**

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

For non-emergency personnel

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

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SIGMASHIELD 880 BASE BS 10B25

# **SECTION 6: Accidental release measures**

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.

## 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 noncombustible, 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.

# 6.4 Reference to other sections

: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

# SECTION 7: Handling and storage

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

#### 7.1 Precautions for safe handling

**Protective measures** 

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. 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

5/16 **United Kingdom (UK)** English (GB)

SIGMASHIELD 880 BASE BS 10B25

# SECTION 7: Handling and storage

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 wellventilated 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**

### 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			
xylene	EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-,p-or mixed isomers] Absorbed through skin.			
	STEL: 441 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 220 mg/m³ 8 hours. TWA: 50 ppm 8 hours.			
2-methylpropan-1-ol	EH40/2005 WELs (United Kingdom (UK), 1/2020).  STEL: 231 mg/m³ 15 minutes.  STEL: 75 ppm 15 minutes.  TWA: 154 mg/m³ 8 hours.  TWA: 50 ppm 8 hours.			

# procedures

**Recommended monitoring**: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. 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
epoxy resin (MW ≤ 700)	DNEL	Long term Inhalation	12.25 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	12.25 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	8.33 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	8.33 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	3.571 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Dermal	3.571 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	0.75 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Oral	0.75 mg/kg bw/day	General population [Consumers]	Systemic
xylene	DNEL DNEL	Short term Inhalation Short term Inhalation	260 mg/m³ 260 mg/m³	General population General population	

**SIGMASHIELD 880 BASE BS 10B25** 

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

DNEL Long term Dermal DNEL Long term Oral Long term Inhalation DNEL Long term Dermal DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Long term Oral DNEL Long term Oral DNEL Long term Oral DNEL Systemic DNEL Systemic DNEL Long term Oral DNEL Systemic DNEL Sys
DNEL DNEL Long term Oral Long term Inhalation DNEL Short term Inhalation DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term Oral DNEL Long term Oral Systemic
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DNEL Long term Inhalation Phenol, methylstyrenated DNEL Long term Oral 221 mg/m³ Workers Local General population Systemic
Phenol, methylstyrenated DNEL Long term Oral 0.2 mg/kg bw/day General population Systemic
DNEL Long term Inhalation 0.348 mg/m³ General population Systemic
DNEL Long term Inhalation 1.41 mg/m³ Workers Systemic
DNEL Long term Dermal 1.67 mg/kg bw/day General population Systemic
DNEL Long term Dermal 3.5 mg/kg bw/day Workers Systemic
2-methylpropan-1-ol DNEL Long term Inhalation 55 mg/m³ General population Local
DNEL Long term Inhalation 310 mg/m³ Workers Local
2,3-epoxypropyl DNEL Long term Dermal 1.15 mg/kg bw/day General population Systemic neodecanoate
DNEL Long term Inhalation 1.6 mg/m³ General population Systemic
DNEL Long term Dermal 1.9 mg/kg bw/day Workers Systemic
DNEL Short term Inhalation 2.7 mg/m³ Workers Systemic
DNEL Long term Inhalation 2.7 mg/m³ Workers Systemic
12-hydroxyoctadecanoic acid, DNEL Long term Inhalation 82.5 μg/m³ General population Local
reaction products with
1,3-benzenedimethanamine
and hexamethylenediamine
DNEL Long term Inhalation 332 μg/m³ Workers Local
DNEL Short term Inhalation 25.7 mg/m³ General population Local
DNEL Short term Inhalation 51.3 mg/m³ Workers Local

# **PNECs**

Product/ingredient name	Compartment Detail	Value	<b>Method Detail</b>
epoxy resin (MW ≤ 700)	Fresh water	0.006 mg/l	Assessment Factors
,	Marine water	0.001 mg/l	Assessment Factors
	Sewage Treatment Plant	10 mg/l	Assessment Factors
	Fresh water sediment	0.996 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	0.1 mg/kg dwt	Equilibrium Partitioning
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

# 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**

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SIGMASHIELD 880 BASE BS 10B25

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

**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.

: 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.

butyl rubber

**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.

Respiratory protection

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and particulate filter P3

**Environmental exposure** controls

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

# SECTION 9: Physical and chemical properties

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

# 9.1 Information on basic physical and chemical properties

**Appearance** 

Physical state : Liquid.
Colour : Brown.

Odour : Aromatic. [Slight]
Odour threshold : Not available.

Melting point/freezing point : May start to solidify at the following temperature: -14°C (6.8°F) This is based on

data for the following ingredient: Phenol, methylstyrenated. Weighted average:

-68.36°C (-91°F)

Initial boiling point and

boiling range

: >37.78°C (>100°F)

Flammability (solid, gas)

: liquid

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SIGMASHIELD 880 BASE BS 10B25

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

: Greatest known range: Lower: 1.7% Upper: 10.9% (2-methylpropan-1-ol) Upper/lower flammability or

explosive limits

Flash point : Closed cup: 37°C (98.6°F)

**Auto-ignition temperature** 

Ingredient name	°C	°F	Method
2,3-epoxypropyl neodecanoate	276	528.8	

**Decomposition temperature** 

: Not applicable. pН

Not applicable. insoluble in water.

: Kinematic (room temperature): >400 mm<sup>2</sup>/s **Viscosity** 

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

Solubility(ies) Method

		motrioa
Media	Result	
cold water	Not soluble	

Miscible with water : No.

Partition coefficient: n-octanol/ : Not applicable.

water

Vapour pressure

	Vapour Pressure at 20°C		Vap	oour pressure at 50°C	
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa
2-methylpropan-1-ol	<12	<1.6	DIN EN 13016-2		

**Relative density** 1.69

Vapour density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.37 (Air = 1) **Explosive properties** : The product itself is not explosive, but the formation of an explosible mixture of

Product does not present an oxidizing hazard.

vapour or dust with air is possible.

**Oxidising properties** 

**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 sulfur oxides halogenated compounds

metal oxide/oxides

SIGMASHIELD 880 BASE BS 10B25

# **SECTION 11: Toxicological information**

# 11.1 Information on toxicological effects

# **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	>2 g/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
Epoxy Resin (700 <mw< td=""><td>LD50 Dermal</td><td>Rat</td><td>&gt;2000 mg/kg</td><td>-</td></mw<>	LD50 Dermal	Rat	>2000 mg/kg	-
<=1100)				
	LD50 Oral	Rat	>2000 mg/kg	-
Phenol, methylstyrenated	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 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	-
2,3-epoxypropyl neodecanoate	LD50 Dermal	Rat	3800 mg/kg	-
	LD50 Oral	Rat	9.6 g/kg	-
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	LC50 Inhalation Dusts and mists	Rat	3.56 mg/l	4 hours
,	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-

Conclusion/Summary

: There are no data available on the mixture itself.

# **Acute toxicity estimates**

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
SIGMASHIELD 880 BASE BS 10B25 xylene 2-methylpropan-1-ol 2,3-epoxypropyl neodecanoate 12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	N/A	31742.1	N/A	205.4	273.4
	4300	1700	N/A	11	N/A
	2830	2460	N/A	24.6	N/A
	9600	3800	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	3.56

### **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
epoxy resin (MW ≤ 700)	Eyes - Mild irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	

**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
epoxy resin (MW ≤ 700)	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.

English (GB) United Kingdom (UK) 10/16

SIGMASHIELD 880 BASE BS 10B25

# SECTION 11: Toxicological information

**Mutagenicity** 

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

**Carcinogenicity** 

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

**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)

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

# Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	Category 2	inhalation	lungs

#### **Aspiration hazard**

Product/ingredient name	Result
xylene	ASPIRATION HAZARD - Category 1

**Information on likely routes**: Not available.

of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.

: No known significant effects or critical hazards. Inhalation

: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction. Skin contact

Ingestion : No known significant effects or critical hazards.

# Symptoms related to the physical, chemical and toxicological characteristics

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

> pain or irritation watering redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:

> irritation redness dryness cracking

Ingestion : No specific data.

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

Short term exposure

SIGMASHIELD 880 BASE BS 10B25

# **SECTION 11: Toxicological information**

**Potential immediate** 

effects

: Not available.

Potential delayed effects

: Not available.

Long term exposure

**Potential immediate** 

: Not available.

effects

**Potential delayed effects** : Not available.

Potential chronic health effects

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

: Suspected of causing genetic defects.

Reproductive toxicity

: No known significant effects or critical hazards.

Other information : Not available.

# **SECTION 12: Ecological information**

# 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
epoxy resin (MW ≤ 700)	Acute LC50 1.8 mg/l	Daphnia	48 hours
	Chronic NOEC 0.3 mg/l	Daphnia	21 days
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
2,3-epoxypropyl neodecanoate	Acute EC50 3.5 mg/l	Algae	96 hours
	Acute EC50 4.8 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 9.6 mg/l	Fish - Oncorhynchus mykiss	96 hours
12-hydroxyoctadecanoic	Acute EC50 >100 mg/l	Algae - Pseudokirchneriella	72 hours
acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine		subcapitata (microalgae)	
,	Acute EC50 >100 mg/l	Daphnia - Daphnia magna (Water flea)	48 hours
	Acute LC50 >100 mg/l	Fish - Oncorhynchus mykiss (rainbow trout)	96 hours
	Chronic NOEC 100 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Chronic NOEC ≥50 mg/l	Daphnia - Daphnia magna (Water flea)	21 days

: Not available. **Conclusion/Summary** 

# 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
epoxy resin (MW ≤ 700) 12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	OECD 301F OECD 301D Ready Biodegradability - Closed Bottle Test	5 % - 28 days 9 % - Not readily - 29 days	-	-

**Conclusion/Summary** : Not available.

> 12/16 **United Kingdom (UK)** English (GB)

SIGMASHIELD 880 BASE BS 10B25

# **SECTION 12: Ecological information**

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
epoxy resin (MW ≤ 700) xylene 2,3-epoxypropyl neodecanoate	- - -	-	Not readily Readily Not readily

#### 12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
epoxy resin (MW ≤ 700)	3	31	low
xylene	3.12	7.4 to 18.5	low
Phenol, methylstyrenated	3.627	-	low
2-methylpropan-1-ol	1	-	low
2,3-epoxypropyl	4.4	-	high
neodecanoate			
12-hydroxyoctadecanoic	>6	-	high
acid, reaction products with			
1,3-benzenedimethanamine			
and hexamethylenediamine			

#### 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

Yes.

# **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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SIGMASHIELD 880 BASE BS 10B25

# **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	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	III	III	III	III
14.5 Environmental hazards Marine pollutant	No.  Not applicable.	Yes.  Not applicable.	No.  Not applicable.	No.  Not applicable.
substances				

#### **Additional information**

ADR/RID : This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to

2.2.3.1.5.1.

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

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

vessels. This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according

to 2.2.3.1.5.1.

: This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5. **IMDG** 

**IATA** : None identified.

user

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.

**Ozone depleting substances** 

Not listed.

14/16 **United Kingdom (UK)** English (GB)

SIGMASHIELD 880 BASE BS 10B25

# **SECTION 15: Regulatory information**

Annex XVII - Restrictions : Not applicable.

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

#### **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	
Flam. Liq. 3, H226	On basis of test data	
Skin Irrit. 2, H315	Calculation method	
Eye Irrit. 2, H319	Calculation method	
Skin Sens. 1, H317	Calculation method	
Muta. 2, H341	Calculation method	
Aquatic Chronic 3, H412	Calculation method	

# Full text of abbreviated H statements

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
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.
H341	Suspected of causing genetic defects.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

### **Full text of classifications**

English (GB) United Kingdom (UK) 15/16

SIGMASHIELD 880 BASE BS 10B25

# **SECTION 16: Other information**

Acute Tox. 4 ACUTE TOXICITY - Category 4

Aquatic Chronic 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 Aquatic Chronic 4 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4

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. 3 FLAMMABLE LIQUIDS - Category 3
Muta. 2 GERM CELL MUTAGENICITY - Category 2
Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2

Skin Sens. 1 SKIN SENSITISATION - Category 1

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

#### **History**

Date of issue/ Date of : 11/9/2022

revision

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Prepared by : EHS Version : 1

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