Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758

SAFETY DATA SHEET

Date of issue/Date of revision

: 9 November 2022



: 1

Version

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

1.1 Product identifier	
Product name	: SIGMASHIELD 460 BASE RAL 5010
Product code	: 00298129
Product description	1 · · · · · · · · · · · · · · · · · · ·
Product type	: Liquid.
Other means of identification	: Not available.
1.2 Relevant identified uses	of the substance or mixture and uses advised against
Product use	: Professional applications, Used by spraying.
Use of the substance/ mixture	: Coating.
Uses advised against	: Product is not intended, labelled or packaged for consumer use.

1.3 Details of the supplier of the safety data sheet

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

e-mail address of person

: Product.Stewardship.EMEA@ppg.com

responsible for this SDS

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 Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

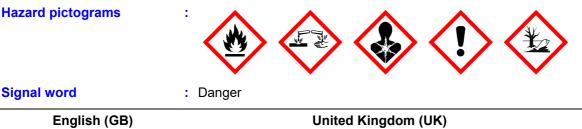
The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

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



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SECTION 2: Hazards identification

Hazard statements	Immable liquid and vapour. uses skin irritation. Iy cause an allergic skin reaction. uses serious eye damage. Iy cause damage to organs through prolonged or repeat ry toxic to aquatic life with long lasting effects.	ed exposure.
Precautionary statements		
Prevention	ear protective gloves. Wear eye or face protection. Keer faces, sparks, open flames and other ignition sources. I ease to the environment. Do not breathe vapour.	
Response	llect spillage.	
Storage	t applicable.	
Disposal	spose of contents and container in accordance with all lo d international regulations. 80, P210, P273, P260, P391, P501	cal, regional, national
Supplemental label elements	ntains epoxy constituents. May produce an allergic reac arning! Hazardous respirable droplets may be formed wh eathe spray or mist.	
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	t applicable.	
Special packaging requirem		
Containers to be fitted with child-resistant fastenings	t applicable.	
Tactile warning of danger	t applicable.	
2.3 Other hazards		
Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	is mixture does not contain any substances that are ass vB.	essed to be a PBT or a
Other hazards which do not result in classification	uses digestive tract burns. Prolonged or repeated contause irritation.	act may dry skin and

SECTION 3: Composition/information on ingredients

Mixture

Identifiers	%	Classification	Туре
REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6	≥10 - ≤25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
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]
EC: 238-878-4 CAS: 14808-60-7	≥1.0 - ≤5.0	STOT RE 1, H372	[1] [2]
REACH #:	≥1.0 - <3.0	Acute Tox. 4, H302	[1] [3]
	REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6 REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9 EC: 238-878-4 CAS: 14808-60-7	REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6 $\geq 10 - \leq 25$ REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9 $\geq 5.0 - \leq 10$ EC: 238-878-4 CAS: 14808-60-7 $\geq 1.0 - \leq 5.0$	REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6≥10 - ≤25Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9≥5.0 - ≤10Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 STOT RE 1, H372 (inhalation)

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SECTION 3: Compo	osition/information on	ingredients		
	01-2119510715-45 EC: 284-325-5 CAS: 84852-15-3 Index: 601-053-00-8		Skin Corr. 1B, H314 Eye Dam. 1, H318 Repr. 2, H361fd Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)	
2-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1	≥1.0 - ≤3.2	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	[1] [2]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥1.0 - ≤5.0	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
Nonylphenols	EC: 294-048-1 CAS: 91672-41-2	≤0.10	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Repr. 2, H361 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10) EUH071	[1]
			See Section 16 for the full text of the H statements declared	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section. Xylene: Several REACH registrations cover the REACH registered substance with xylene isomers, ethylbenzene (and toluene). The other REACH Registrations include: 01-2119555267-33 reaction mass of ethylbenzene and m-xylene and p-xylene, 01-2119486136-34 Aromatic hydrocarbons, C8, 01-2119539452-40 reaction mass of ethylbenzene and xylene.

above.

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Туре

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance of equivalent concern

This mixture contains \geq 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	: 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.

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SECTION 4: First aid	l 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 symptom	ns and effects, both acute and delayed
Potential acute health effect	<u>s</u>
Eye contact	: Causes serious eye damage.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: Corrosive to the digestive tract. Causes burns.
Over-exposure signs/symp	i <u>toms</u>
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains
4.3 Indication of any immedi	ate medical attention and special treatment needed
Notes to physician	 Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.
SECTION 5: Firefigh	ting measures
5.1 Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO ₂ , 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 very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products	 Decomposition products may include the following materials: carbon oxides halogenated compounds metal oxide/oxides

5.3 Advice for firefighters

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SECTION 5: Firefighting measures		

<u></u>	
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, pro	te	ctive 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	со	ntainment 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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spill 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. 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,
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SECTION 7: Handling and storage

	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

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 crystalline silica, respirable powder (<10 microns)	EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-,p- or mixed isomers] Absorbed through skin. STEL: 441 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 220 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. EH40/2005 WELs (United Kingdom (UK), 1/2020). [silica, respirable crystalline] TWA: 0.1 mg/m ³ 8 hours. Form: Respirable fraction
2-methylpropan-1-ol	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 231 mg/m ³ 15 minutes. STEL: 75 ppm 15 minutes. TWA: 154 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
ethylbenzene	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 552 mg/m ³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 441 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
procedures atmosphere or bio of the ventilation protective equipm standards. Refer	ntains ingredients with exposure limits, personal, workplace ological monitoring may be required to determine the effectiveness or other control measures and/or the necessity to use respiratory nent. Reference should be made to appropriate monitoring rence to national guidance documents for methods for the nazardous substances will also be required.
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SECTION 8: Exposure controls/personal protection

Product/ingredient name	Туре	Exposure	Value	Population	Effects
epoxy resin (MW ≤ 700)	DNEL	Long term Inhalation	12.25 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	12.25 mg/m ³	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	Systemic
				population	
				[Consumers]	
	DNEL	Short term Dermal	3.571 mg/kg bw/day	General	Systemic
				population	
				[Consumers]	
	DNEL	Long term Oral	0.75 mg/kg bw/day	General	Systemic
				population	
				[Consumers]	
	DNEL	Short term Oral	0.75 mg/kg bw/day	General	Systemic
				population	-
				[Consumers]	
xylene	DNEL	Short term Inhalation	260 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	260 mg/m ³	General population	Local
	DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	65.3 mg/m³	General population	Systemic
	DNEL	Long term Oral	12.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	442 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	442 mg/m ³	Workers	Local
	DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	65.3 mg/m ³	General population	Local
	DNEL	Short term Inhalation	260 mg/m ³	General population	Local
	DNEL	Short term Inhalation	260 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Local
4-nonylphenol, branched	DNEL	Long term Oral	0.08 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.4 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	0.5 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	0.8 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	1 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	3.8 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	7.5 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	7.6 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	15 mg/kg bw/day	Workers	Systemic
2-methylpropan-1-ol	DNEL	Long term Inhalation	55 mg/m ³	General population	Local
	DNEL	Long term Inhalation	310 mg/m ³	Workers	Local
ethylbenzene	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	15 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	77 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	293 mg/m ³	Workers	Local

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
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	-
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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	-

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 <u>Skin protection</u>	: Chemical splash goggles and face shield.
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. 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 anti-static 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

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SECTION 8: Exposure controls/personal protection

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

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

<u>Appearance</u>					
Physical state	: Liquid.	: Liquid.			
Colour	: Variou	: Various			
Odour	: Aroma	itic.			
Odour threshold	: Not av	ailable.			
Melting point/freezing point	 May start to solidify at the following temperature: <-7°C (<19.4°F) This is based on data for the following ingredient: 4-nonylphenol, branched. Weighted average: -76.85°C (-106.3°F) 				
Initial boiling point and boiling range	: >37.78°C (>100°F)				
Flammability (solid, gas) Upper/lower flammability or explosive limits	: liquid : Greatest known range: Lower: 1.7% Upper: 10.9% (2-methylpropan-1-ol)				
Flash point	: Closed	d cup: 25°C (77°F)			
Auto-ignition temperature					
Ingredient name	Ingredient name °C °F Method			Method	
4-nonylphenol, branched	372 701.6 ASTM E 659				

Decomposition temperature	:		
рН	: 1	Not applicable.	
	١	Not applicable. insoluble in water.	
Viscosity	: ł	Kinematic (40°C): >21 mm²/s	
Solubility(ies)	1		Method
Media		Result	
cold water		Not soluble	
Miscible with water	: 1	No.	

Partition coefficient: n-octanol/ : Not applicable. water

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Vapour pressure

	Va	Vapour Pressure at 20°C		V	apour 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	: 1.66	6			
Vapour density	•	hest knowr (Air = 1)	n value: 7.59 (Air = 1) (4-nonylph	enol, branched). Weighted avera
Explosive properties	The product itself is not explosive, but the formation of an explosible mixture of vapour or dust with air is possible.				
Oxidising properties	: Pro	duct does i	not present an oxidiz	ing hazard.	
Particle characteristics					
Median particle size	: Not	applicable			

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SECTION 10: Stability and read	ctivity	

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 produce 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 halogenated compounds metal oxide/oxides

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	-
4-nonylphenol, branched	LD50 Dermal	Rabbit	2.14 g/kg	-
	LD50 Oral	Rat	1300 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	-
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	-

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 460 BASE RAL 5010	44307.7	21483.7	N/A	125.1	N/A
xylene	4300	1700	N/A	11	N/A
4-nonylphenol, branched	1300	2140	N/A	N/A	N/A
2-methylpropan-1-ol	2830	2460	N/A	24.6	N/A
ethylbenzene	3500	17800	N/A	17.8	N/A
Nonylphenols	500	N/A	N/A	N/A	N/A

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	
4-nonylphenol, branched	Skin - Erythema/Eschar	Rabbit	4	-	-
Conclusion/Summary	Not available.	·		·	
Skin	: There are no data available on the mixture itself.				

: There are no data available on the mixture itself.

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

Eyes

- : 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	4	1			
Skin	: There are no da	ata available on the mixture its	self.		
Respiratory	: There are no data available on the mixture itself.				
<u>Mutagenicity</u>					
Conclusion/Summary	: There are no da	ata available on the mixture its	self.		
<u>Carcinogenicity</u>					
It has been observed that the leading to significant impairme			respirable dust is inhaled in quantities		
Conclusion/Summary	• There are no da	ata available on the mixture its	self		

leading to significant impairm	ent 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
	Category 1	inhalation	-
	Category 2	-	hearing organs

Aspiration hazard

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

Information on likely routes of exposure	1	Not available.
Potential acute health effects		
Eye contact	:	Causes serious eye damage.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	;	Corrosive to the digestive tract. Causes burns.

Symptoms related to the physical, chemical and toxicological characteristics

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Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains
Delaved and immediate effect	ts as well as chronic effects from short and long-term exposure
Short term exposure	
Potential immediate effects	: Not available.
Potential delayed effects Long term exposure	: Not available.
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health eff	ects
Not available.	
Conclusion/Summary	: Not available.
General	 May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

Other information

: Not available.

SECTION 12: Ecological information

12.1 Toxicity

	Exposure
	48 hours
	21 days
ans - Water flea -	48 hours
icrocopa	
•	96 hours
	48 hours
	48 hours
Ceriodaphnia dubia	-
uronectes americanus	96 hours
-	uronectes americanus

12.2 Persistence and degradability

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SECTION 12: Ecological information

Product/ingredient name	Test	Result		Dose	Inoculum
epoxy resin (MW ≤ 700) ethylbenzene	OECD 301F -	5 % - 28 days 79 % - Readily - 10	days	-	-
Conclusion/Summary	: Not available.				· · ·
Product/ingredient name	Aquatic half-life		Photolys	is	Biodegradability
epoxy resin (MW ≤ 700) xylene ethylbenzene	- - -		- - -		Not readily Readily Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
epoxy resin (MW ≤ 700)	3 3.12	31 7.4 to 18.5	low low
xylene 4-nonylphenol, branched	5.4	251.19	low
2-methylpropan-1-ol	1	-	low
ethylbenzene	3.6	79.43	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	: 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	

English (GB)

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SECTION 13: Disposal considerations

taken when handlin Empty containers of residues may crea container. Do not	is container must be disposed of in a safe way. Care should be ng emptied containers that have not been cleaned or rinsed out. or liners may retain some product residues. Vapour from product te a highly flammable or explosive atmosphere inside the cut, weld or grind used containers unless they have been cleaned y. Avoid dispersal of spilt material and runoff and contact with ains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	ΙΑΤΑ
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	Ш	111	111	111
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	Not applicable.	(Epoxy resin (MW ≤ 700), 4-nonylphenol, branched)	Not applicable.

Additional information

ADR/RID: The environmentally hazardous substance mark is not required when transported in sizes of $\leq 5 L$ or
 $\leq 5 kg$.Tunnel code: (D/E)ADN: The environmentally hazardous substance mark is not required when transported in sizes of $\leq 5 L$ or
 $\leq 5 kg$.IMDG: The marine pollutant mark is not required when transported in sizes of $\leq 5 L$ or $\leq 5 kg$.IATA: The environmentally hazardous substance mark may appear if required by other transportation
regulations.

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
 : Not available.

 according to IMO
 instruments

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture <u>UK (GB) /REACH</u> <u>Annex XIV - List of substances subject to authorisation</u>

Annex XIV

None of the components are listed.

Substances of very high concern

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SECTION 15: Regulatory information

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Substance of equivalent concern for environment	4-nonylphenol, branched and linear substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof	Candidate	-	12/19/2012

Ozone depleting substances

Not listed.

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 E1

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes
Quartz (SiO2)		silica, respirable crystalline respirable fraction	Carc.	-

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and	: ATE = Acute Toxicity Estimate
acronyms	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 Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
STOT RE 2, H373	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated H statements

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SECTION 16: Other information

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.
H361	Suspected of damaging fertility or the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
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

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Repr. 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
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - 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

<u>HISTOLY</u>	
Date of issue/ Date of revision	: 11/9/2022
Date of previous issue	: No previous validation
Prepared by	: EHS
Version	: 1

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