

SAFETY DATA SHEET

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Version

: 2.06



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

1.1 Product identifier

Product name : SIGMASHIELD 1090 BASE RAL 7038

Product code : 00268076

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
responsible for this SDS** : Product.Stewardship.EMEA@ppg.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : Nødtelefon: Giftinformasjonen: 22 59 13 00

Supplier

+31 20 4075210

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

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 Regulation (EC) 1272/2008 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.

SECTION 2: Hazards identification

2.2 Label elements

Hazard pictograms

:



Signal word

: Warning

Hazard statements

: 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. Avoid release to the environment. Avoid breathing vapour.

Response

: IF exposed or concerned: Get medical advice or attention.

Storage

: Not applicable.

Disposal

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

P202, P280, P273, P261, P308 + P313, P501

Hazardous ingredients

☑ Bis-[4-(2,3-epoxipropoxy)phenyl]propane; 2,3-epoxypropyl neodecanoate; benzyl alcohol and Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine

Supplemental label elements

: Contains epoxy constituents. May produce an allergic reaction.

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

: None known.

3.2 Mixtures : Mixture

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.

[1] Substance classified with a health or environmental hazard
Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

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. |
| 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. 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

SECTION 4: First aid measures

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. 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 or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

4.3 Indication of any immediate 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: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. 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
metal oxide/oxides

5.3 Advice for firefighters

- Special precautions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing 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. 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. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

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. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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.

SECTION 7: Handling and storage

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 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. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures

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

DNELs/DMELs

Product/ingredient name	Exposure		Value	
bis-[4-(2,3-epoxipropoxy)phenyl]propane	DNEL - Workers - Long term - Inhalation	Effects: Systemic	12.25 mg/m³	
	DNEL - Workers - Short term - Inhalation	Effects: Systemic	12.25 mg/m³	
	DNEL - Workers - Long term - Dermal	Effects: Systemic	8.33 mg/kg bw/day	
	DNEL - Workers - Short term - Dermal	Effects: Systemic	8.33 mg/kg bw/day	
	DNEL - General population - Consumers - Long term - Dermal	Effects: Systemic	3.571 mg/kg bw/day	
	DNEL - General population - Consumers - Short term - Dermal	Effects: Systemic	3.571 mg/kg bw/day	
	DNEL - General population - Consumers - Long term - Oral	Effects: Systemic	0.75 mg/kg bw/day	
	DNEL - General population - Consumers - Short term - Oral	Effects: Systemic	0.75 mg/kg bw/day	
	DNEL - General population - Long term - Dermal	Effects: Systemic	89.3 µg/kg bw/day	
	DNEL - General population - Long term - Oral	Effects: Systemic	0.5 mg/kg bw/day	
	DNEL - Workers - Long term - Dermal	Effects: Systemic	0.75 mg/kg bw/day	
	DNEL - General population - Long term - Inhalation	Effects: Systemic	0.87 mg/m³	
	2,3-epoxypropyl neodecanoate	DNEL - Workers - Long term - Inhalation	Effects: Systemic	4.93 mg/m³
		DNEL - General population - Long term - Dermal	Effects: Systemic	2.5 mg/kg bw/day
DNEL - General population - Long term -		Effects: Systemic	4 mg/m³	

SECTION 8: Exposure controls/personal protection

benzyl alcohol	Inhalation		
	DNEL - Workers - Long term - Dermal	<i>Effects: Systemic</i>	4.2 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	<i>Effects: Systemic</i>	5.88 mg/m ³
	DNEL - General population - Long term - Oral	<i>Effects: Systemic</i>	2.5 mg/kg bw/day
	DNEL - General population - Long term - Oral	<i>Effects: Systemic</i>	4 mg/kg bw/day
	DNEL - General population - Long term - Dermal	<i>Effects: Systemic</i>	4 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	<i>Effects: Systemic</i>	5.4 mg/m ³
	DNEL - Workers - Long term - Dermal	<i>Effects: Systemic</i>	8 mg/kg bw/day
	DNEL - General population - Short term - Oral	<i>Effects: Systemic</i>	20 mg/kg bw/day
	DNEL - General population - Short term - Dermal	<i>Effects: Systemic</i>	20 mg/kg bw/day
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	DNEL - Workers - Long term - Inhalation	<i>Effects: Systemic</i>	22 mg/m ³
	DNEL - General population - Short term - Inhalation	<i>Effects: Systemic</i>	27 mg/m ³
	DNEL - Workers - Short term - Dermal	<i>Effects: Systemic</i>	40 mg/kg bw/day
	DNEL - Workers - Short term - Inhalation	<i>Effects: Systemic</i>	110 mg/m ³
	DNEL - General population - Long term - Inhalation	<i>Effects: Local</i>	0.055 mg/m ³
	DNEL - Workers - Long term - Inhalation	<i>Effects: Local</i>	0.308 mg/m ³

PNECs

Product/ingredient name	Compartment Detail - Method	Value
bis-[4-(2,3-epoxipropoxy)phenyl] propane	Fresh water - Assessment Factors	0.006 mg/l
	Marine water - Assessment Factors	0.001 mg/l
	Fresh water sediment - Equilibrium Partitioning	0.996 mg/kg dwt
	Marine water sediment - Equilibrium Partitioning	0.1 mg/kg dwt
	Soil - Equilibrium Partitioning	0.196 mg/kg dwt
	Sewage Treatment Plant - Assessment Factors	10 mg/l
	Secondary Poisoning - Assessment Factors	11 mg/kg

8.2 Exposure controls**Appropriate engineering controls**

- : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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

- : Chemical splash goggles. Use eye protection according to EN 166.

Skin protection**Hand protection**

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended.

SECTION 8: Exposure controls/personal protection

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

- Gloves
- : 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.
- 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
- : Grey.
- Odour
- : Aromatic.
- Melting point/freezing point
- : Not determined.
- Boiling point or initial boiling point and boiling range
- : >37.78°C
- Flammability
- : Not determined. There are no data available on the mixture itself.
- Lower and upper explosion limit
- : Not available.
- Flash point
- : Closed cup: Not applicable.
- Auto-ignition temperature
- :
- Decomposition temperature
- : Stable under recommended storage and handling conditions (see Section 7).
- pH
- : Not applicable. insoluble in water.
- Viscosity
- : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C): >21 mm²/s
- Solubility
- :
- Media
- Result
- cold water
- Not soluble
- Partition coefficient n-octanol/ water (log Pow)
- : Not applicable.

SECTION 9: Physical and chemical properties

Vapour pressure	:	Ingredient name	Vapour Pressure at 20°C		Vapour pressure at 50°C		
			mm Hg	kPa	Method	mm Hg	kPa
		 2,3-epoxypropyl neodecanoate	0.11251	0.015			

Relative density : 2.06

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

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 : Product does not present an oxidizing hazard.

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.						
10.2 Chemical stability	:	The product is stable.						
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.						
10.4 Conditions to avoid	:	When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.						
10.5 Incompatible materials	:	Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.						
10.6 Hazardous decomposition products	:	Depending on conditions, decomposition products may include the following materials: carbon oxides metal oxide/oxides						

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008								
The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly.								
Causes serious eye irritation.								
Causes skin irritation.								
May cause an allergic skin reaction.								
Suspected of causing genetic defects.								

Acute toxicity								
Product/ingredient name			Result			Dose / Exposure		
1,4-bis-[4-(2,3-epoxipropoxy)phenyl]propane			Rabbit - Dermal - LD50			23000 mg/kg		
2,3-epoxypropyl neodecanoate			Rat - Oral - LD50			15000 mg/kg		
			Rat - Oral - LD50			9.6 g/kg		
			Rat - Dermal - LD50			3800 mg/kg		
benzyl alcohol			Rabbit - Dermal - LD50			>2000 mg/kg		
			Rat - Oral - LD50			1200 mg/kg		
			Rat - Inhalation - LC50 Dusts and mists			>5 mg/l [4 hours]		
Octadecanoic acid, 12-hydroxy-,			Rat - Oral - LD50			>2000 mg/kg		

SECTION 11: Toxicological information

reaction products with ethylenediamine	Rat - Inhalation - LC50 Dusts and mists	5.05 mg/l [4 hours]
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Acute toxicity estimates

Route	ATE value
Oral	66338.29 mg/kg

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

Irritation/Corrosion

Product/ingredient name	Result
Bis-[4-(2,3-epoxipropoxy)phenyl]propane	<p><u>Rabbit - Eyes - Redness of the conjunctivae</u> Duration of treatment/exposure: 24 hours Irritation score: 0.4</p>
-	<p><u>Rabbit - Eyes - Mild irritant</u> Duration of treatment/exposure: 24 hours Fully reversible in 7 days or less</p>
-	<p><u>Rabbit - Skin - Erythema/Eschar</u> Duration of treatment/exposure: 4 hours Irritation score: 0.8</p>
-	<p><u>Rabbit - Skin - Oedema</u> Duration of treatment/exposure: 4 hours Irritation score: 0.5</p>
-	<p><u>Rabbit - Skin - Mild irritant</u> Duration of treatment/exposure: 4 hours</p>

Conclusion/Summary

Skin : Causes skin irritation.

Eyes : Causes serious eye irritation.

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

Respiratory or skin sensitization

Product/ingredient name	Test	Result
bis-[4-(2,3-epoxipropoxy)phenyl] propane	Mouse - skin	Result: Sensitising
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	Guinea pig - skin	Result: Sensitising

Conclusion/Summary

Skin : May cause an allergic skin reaction.

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

Mutagenicity

Suspected of causing genetic defects.

Carcinogenicity

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

Reproductive toxicity

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

Specific target organ toxicity (single exposure)

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

Specific target organ toxicity (repeated exposure)

SECTION 11: Toxicological information

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

Aspiration hazard

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

Information on likely routes of exposure : Not available.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Eye contact : Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : No specific data.
Ingestion : No specific data.
Skin contact : Adverse symptoms may include the following:
irritation
redness
Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

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

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : 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 : Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

12.1 Toxicity

Product/ingredient name	Result	Species	Dose / Exposure
<div> <div> <div></div> <div> <div>Dis-[4-(2,3-epoxipropoxy)phenyl]propane</div> <div>2,3-epoxypropyl neodecanoate</div> <div>Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine</div> </div> </div> </div>	Chronic - NOEC	Daphnia	0.3 mg/l [21 days]
	Acute - LC50 - Fresh water	Daphnia - <i>daphnia magna</i>	1.8 mg/l [48 hours]
	Acute - LC50	Fish - <i>Oncorhynchus mykiss</i>	9.6 mg/l [96 hours]
	Acute - EC50	Daphnia - <i>Daphnia magna</i>	4.8 mg/l [48 hours]
	Acute - EC50	Algae	3.5 mg/l [96 hours]
	Acute - LC50	Fish - <i>Oncorhynchus mykiss</i>	>10 mg/l [96 hours]
	Acute - EC50	Daphnia - <i>Daphnia magna</i>	>10 mg/l [48 hours]
	Acute - EC50	Algae - <i>Pseudokirchneriella subcapitata</i>	>100 mg/l [72 hours]

Conclusion/Summary : Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose / Inoculum
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	Ready Biodegradability - Closed Bottle Test	22% [28 days]	

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<div> <div> <div></div> <div> <div>Dis-[4-(2,3-epoxipropoxy)phenyl]propane</div> <div>2,3-epoxypropyl neodecanoate</div> <div>benzyl alcohol</div> <div>Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine</div> </div> </div> </div>	-	-	Not readily
	-	-	Not readily
	-	-	Readily
	-	-	Inherent

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2,3-epoxypropyl neodecanoate	4.4	-	High
benzyl alcohol	0.87	-	Low
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	>5.86	-	High

12.4 Mobility in soil

Soil/water partition coefficient

SECTION 12: Ecological information

Product/ingredient name	logKoc	Koc
bis-[4-(2,3-epoxipropoxy)phenyl]propane	4.02	10465.7
benzyl alcohol	1.1	12.6442

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

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

13.1 Waste treatment methods

Product

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

Hazardous waste :

European waste catalogue (EWC)

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

Packaging

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

Type of packaging	European waste catalogue (EWC)	
Container	15 01 06	mixed packaging

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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	9006	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	-	-
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
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.

ADN : The product is only regulated as a dangerous good when transported in tank vessels.

IMDG : None identified.

IATA : None identified.

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

14.7 Maritime transport in bulk according to IMO instruments : Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

[EU Regulation \(EC\) No. 1907/2006 \(REACH\)](#)

[Annex XIV - List of substances subject to authorisation](#)


[Annex XIV](#)

None of the components are listed.

[Substances of very high concern](#)

None of the components are listed.

[Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles](#)

Product/ingredient name	Entry Number (REACH)
 SIGMASHIELD 1090 BASE RAL 7038	3

Labelling : Not applicable.

Explosive precursors : Not applicable.

[Ozone depleting substances \(EU 2024/590\)](#)

Not listed.

SECTION 15: Regulatory information

Seveso Directive

This product is not controlled under the Seveso Directive.


National regulations

Product registration number : PR-46224

References : - Forskrift om klassifisering, merking og emballering av stoffer og stoffblandinger (CLP) av 16.06.2012 med senere endringer - Forskrift om registrering, vurdering, godkjenning og begrensning av kjemikalier (REACH-forskriften) av 30. mai 2008 med senere endringer. - Forskrift om gjenvinning og behandling av avfall (avfallsforskriften). 01.06 2004 nr. 930, med endringer. - FOR 2009-04-01 nr 384: Forskrift om landtransport av farlig gods med senere endringer, Direktoratet for samfunnssikkerhet og beredskap.

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

 Indicates information that has changed from previously issued version.


Abbreviations and acronyms

ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 PBT = Persistent, Bioaccumulative and Toxic
 vPvB = Very Persistent and Very Bioaccumulative
 ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
 IMDG = International Maritime Dangerous Goods
 IATA = International Air Transport Association

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Muta. 2, H341 Aquatic Chronic 3, H412	Calculation method Calculation method Calculation method Calculation method Calculation method

Full text of abbreviated H statements

 H302 H315 H317 H319 H341 H411 H412	Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing genetic defects. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.
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Full text of classifications [CLP/GHS]

SECTION 16: Other information

Acute Tox. 4 Aquatic Chronic 2 Aquatic Chronic 3 Eye Irrit. 2 Muta. 2 Skin Irrit. 2 Skin Sens. 1 Skin Sens. 1B	ACUTE TOXICITY - Category 4 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 GERM CELL MUTAGENICITY - Category 2 SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITISATION - Category 1 SKIN SENSITISATION - Category 1B
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Version : 2.06

Disclaimer

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