

SAFETY DATA SHEET

Date of issue/Date of revision

: 5 August 2019

Version

: 2.04



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

1.1 Product identifier

Product name : PR1440MB1/2-F Base

Product code : PR1440MB1/2-F Base

Other means of identification

Not available.

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

Product use : Industrial applications.

**Use of the substance/
mixture** : Sealants

1.3 Details of the supplier of the safety data sheet

Sealants Europe SAS
84 rue Salvador Allende
95870 Bezons
France
+33 (0) 1 34 23 38 00

PPG Deutschland Sales & Services GmbH
Hein-Sass-Weg 29
D-21129 Hamburg-Finkenwerder
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+49 (40) 742 193 10

PPG Coatings S.A.
7, Allée de la Plaine
Gonfreville l'Orcher
76700 HARFLEUR
France
+33 (0)2 3553 5400

Supplied by:
Sil-Mid Limited
Roman Park, Roman Way
Coleshill, West Midlands
B46 1HG. UK
T: 01675 432850
E: info@silmid.com

Emergency Telephone No. +44 (0)1675 432850
(Monday to Friday, 08:00 – 17:30 – GMT)

**e-mail address of person
responsible for this SDS** : AeroPSreachEMEA@ppg.com

1.4 Emergency telephone number

Supplier

+44 (0) 1388 772 541

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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]

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.

2.2 Label elements

Signal word : No signal word.

Hazard statements : Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

P273

Hazardous ingredients : Not applicable.

Supplemental label elements : Contains Phenol-formaldehyde resin and 2-(3,4-epoxycyclohexyl) ethyltrimethoxysilane. 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 : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : Prolonged or repeated contact may dry skin and cause irritation.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

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SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	% by weight	<u>Classification</u> Regulation (EC) No. 1272/2008 [CLP]	Type
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis [2-chloroethane] and sodium sulfide (Na ₂ (Sx)), reduced titanium dioxide	CAS: 68611-50-7	≥50 - ≤75	Aquatic Chronic 3, H412	[1]
ethyl acetate	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7 REACH #: 01-2119475103-46 EC: 205-500-4 CAS: 141-78-6 Index: 607-022-00-5	≥1.0 - ≤5.0	Not classified.	[2]
Phenol-formaldehyde resin	CAS: 9003-35-4 EC: 222-217-1 CAS: 3388-04-3	≥1.0 - ≤5.0	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066 Skin Sens. 1, H317	[1] [2]
2-(3,4-epoxycyclohexyl) ethyltrimethoxysilane	EC: 500-005-2 CAS: 9003-35-4 EC: 222-217-1 CAS: 3388-04-3	<1.0	Skin Sens. 1B, H317	[1]
		≤0.30	Skin Sens. 1B, H317 Carc. 2, H351 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above.	[1]

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

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

[6] Additional disclosure due to company policy

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.
- 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.

4.2 Most important symptoms and effects, both acute and delayedPotential acute health effects

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SECTION 4: First aid measures

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
dryness
cracking
- 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** : 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
halogenated compounds
metal oxide/oxides
Formaldehyde.

5.3 Advice for firefighters

- Special precautions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- 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.

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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. 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** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

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). 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. Do not ingest. Avoid contact with eyes, skin and clothing. 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.

7.2 Conditions for safe storage, including any incompatibilities

- : Store between the following temperatures: 4 to 27°C (39.2 to 80.6°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. 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.

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SECTION 7: Handling and storage**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**

Product/ingredient name	Exposure limit values
titanium dioxide	EH40/2005 WELs (United Kingdom (UK), 8/2018). TWA: 10 mg/m ³ 8 hours. Form: inhalable dust TWA: 4 mg/m ³ 8 hours. Form: respirable dust
ethyl acetate	EH40/2005 WELs (United Kingdom (UK), 8/2018). STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours. STEL: 1468 mg/m ³ 15 minutes. TWA: 734 mg/m ³ 8 hours.

Recommended monitoring procedures : 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 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

Product/ingredient name	Type	Exposure	Value	Population	Effects
calcium carbonate	DNEL	Long term Inhalation	4.26 mg/m ³	Workers	Local
	DNEL	Short term Oral	6.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	6.1 mg/kg bw/day	General population	Systemic
titanium dioxide	DNEL	Long term Inhalation	10 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	10 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	700 mg/kg bw/day	Workers	Local
ethyl acetate				General population	Systemic
	DNEL	Long term Oral	4.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	37 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	63 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	367 mg/m ³	General population	Local
	DNEL	Long term Inhalation	367 mg/m ³	General	Systemic

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SECTION 8: Exposure controls/personal protection

	DNEL	Short term Inhalation	734 mg/m ³	population General population	Local
	DNEL	Short term Inhalation	734 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	734 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	734 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	1468 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	1468 mg/m ³	Workers	Systemic

PNECs

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
calcium carbonate	-	Sewage Treatment Plant	100 mg/l	Assessment Factors
ethyl acetate	-	Fresh water	0.24 mg/l	Assessment Factors
	-	Marine water	0.024 mg/l	Assessment Factors
	-	Sewage Treatment Plant	650 mg/l	Assessment Factors
	-	Fresh water sediment	1.15 mg/kg dwt	-
	-	Marine water sediment	0.115 mg/kg dwt	-
	-	Soil	0.148 mg/kg dwt	-

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses with side shields. Use eye protection according to EN 166.

Skin protection

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

Gloves : For prolonged or repeated handling, use the following type of gloves:

Recommended: natural rubber (latex), 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.

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SECTION 8: Exposure controls/personal protection**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.

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**9.1 Information on basic physical and chemical properties****Appearance****Physical state**

: Solid.
Paste.

Colour

: Beige.

Odour

: Sulphurous.

Odour threshold

: Not available.

pH

: insoluble in water.

Melting point/freezing point

: Not available.

Initial boiling point and boiling range

: Not available.

Flash point

: Closed cup: Not applicable.

Evaporation rate

: Not available.

Flammability (solid, gas)

: Not available.

Upper/lower flammability or explosive limits

: Not available.

Relative density

: 1.54

Solubility(ies)

: Insoluble in the following materials: cold water.

Partition coefficient: n-octanol/water

: Not applicable.

Auto-ignition temperature

: Not available.

Decomposition temperature

: Stable under recommended storage and handling conditions (see Section 7).

Viscosity

: Kinematic (40°C): Not applicable.

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.

9.2 Other information

No additional information.

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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 halogenated compounds Formaldehyde. metal oxide/oxides**SECTION 11: Toxicological information****11.1 Information on toxicological effects**Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis [2-chloroethane] and sodium sulfide (Na ₂ (Sx)), reduced calcium carbonate	LD50 Oral	Rat	>5000 mg/kg	-
titanium dioxide	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	6450 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
ethyl acetate	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	>5 g/kg	-
Phenol-formaldehyde resin	LD50 Oral	Rat	5620 mg/kg	-
2-(3,4-epoxycyclohexyl) ethyltrimethoxysilane	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	6.7 g/kg	-
	LD50 Oral	Rat	13 g/kg	-

Conclusion/Summary : There are no data available on the mixture itself.Acute toxicity estimates

Route	ATE value
Not available.	

Irritation/Corrosion**Conclusion/Summary****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**Conclusion/Summary**

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SECTION 11: Toxicological information

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

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

Mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Teratogenicity

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

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethyl acetate	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

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 : Defatting to the skin. May cause skin dryness and irritation.

Eye contact : No known significant effects or critical hazards.

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
dryness
cracking

Eye contact : No specific data.

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

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SECTION 11: Toxicological information

General	: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Other information	: Not available.

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains Phenol-formaldehyde resin, 2-(3,4-epoxycyclohexyl)ethyltrimethoxysilane. May produce an allergic reaction.

SECTION 12: Ecological information**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2-chloroethane] and sodium sulfide (Na ₂ (Sx)), reduced calcium carbonate titanium dioxide	Acute EC ₅₀ 20 mg/l	Daphnia	48 hours
	Acute EC ₁₀ >14 mg/l	Algae	72 hours
	Acute LC ₅₀ >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC ₅₀ 172 mg/l	Daphnia	48 hours
Phenol-formaldehyde resin			

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

12.2 Persistence and degradability

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

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2-chloroethane] and sodium sulfide (Na ₂ (Sx)), reduced	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
ethyl acetate	0.73	-	low

12.4 Mobility in soil

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SECTION 12: Ecological information

Soil/water partition coefficient (K_{oc}) : 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.

European waste catalogue (EWC)

Waste code	Waste designation
08 04 09*	waste adhesives and sealants 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.

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 spill material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	9005	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	-	-
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	Yes.	No.	No.

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14. Transport information

Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.
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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 Transport in bulk according to Annex II of Marpol and the IBC Code : 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 : Not applicable.

Ozone depleting substances (1005/2009/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

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

Code : PR1440MB1/2-F Base
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Date of issue/Date of revision : 5 August 2019

SECTION 16: Other information

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
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Aquatic Chronic 3, H412 Carc. 2, H351 EUH066 Eye Irrit. 2, H319 Flam. Liq. 2, H225 Skin Sens. 1, H317 Skin Sens. 1B, H317 STOT SE 3, H336	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 CARCINOGENICITY - Category 2 Repeated exposure may cause skin dryness or cracking. SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2 SKIN SENSITISATION - Category 1 SKIN SENSITISATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3
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History

Date of issue/ Date of revision : 5 August 2019

Date of previous issue : 2 May 2019

Prepared by : EHS

Version : 2.04

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.

SAFETY DATA SHEET

Date of issue/Date of revision

: 18 June 2019

Version

: 3.01



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

1.1 Product identifier

Product name : PR1440MB1/2-F Accelerator

Product code : PR1440MB1/2-F Accelerator

Other means of identification

Not available.

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

Product use : Industrial applications.

**Use of the substance/
mixture** : Catalyst.

1.3 Details of the supplier of the safety data sheet

Sealants Europe SAS
84 rue Salvador Allende
95870 Bezons
France
+33 (0) 1 34 23 38 00

PPG Deutschland Sales & Services GmbH
Hein-Sass-Weg 29
D-21129 Hamburg-Finkenwerder
Germany
+49 (40) 742 193 10

PPG Coatings S.A.
7, Allée de la Plaine
Gonfreville l'Orcher
76700 HARFLEUR
France
+33 (0)2 3553 5400

Supplied by:
Sil-Mid Limited
Roman Park, Roman Way
Coleshill, West Midlands
B46 1HG. UK
T: 01675 432850
E: info@silmid.com

Emergency Telephone No. +44 (0)1675 432850
(Monday to Friday, 08:00 – 17:30 – GMT)

**e-mail address of person
responsible for this SDS** : AeroPSreachEMEA@ppg.com

1.4 Emergency telephone number

Supplier

+44 (0) 1388 772 541

Code : PR1440MB1/2-F Accelerator **Date of issue/Date of revision** : 18 June 2019
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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]

Acute Tox. 4, H302

Acute Tox. 4, H332

Skin Irrit. 2, H315

Eye Irrit. 2, H319

STOT RE 2, H373

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.

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : Harmful if swallowed or if inhaled.
Causes serious eye irritation.
Causes skin irritation.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Do not breathe vapour.

Response : IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage : Not applicable.

Disposal : Not applicable.
P280, P260, P304 + P340, P305 + P351 + P338

Hazardous ingredients : manganese dioxide

Supplemental label elements : Not applicable.


Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB :  This mixture contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2.

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SECTION 2: Hazards identification

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	% by weight	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
manganese dioxide	REACH #: 01-2119452801-43 EC: 215-202-6 CAS: 1313-13-9 Index: 025-001-00-3	≥25 - ≤50	Acute Tox. 4, H302 Acute Tox. 4, H332 STOT RE 2, H373 (brain) (inhalation)	[1] [2]
bis(piperidinothiocarbonyl) hexasulphide	REACH #: 01-2119974270-39 EC: 213-537-2 CAS: 971-15-3	≥1.0 - ≤5.0	Aquatic Chronic 4, H413	[1]
sodium hydroxide	REACH #: 01-2119457892-27 EC: 215-185-5 CAS: 1310-73-2 Index: 011-002-00-6	≤1.0	Skin Corr. 1A, H314 Eye Dam. 1, H318	[1] [2]
Poly(oxy-1,2-ethanediyl), α-[(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy-	CAS: 9036-19-5	≤0.30	Acute Tox. 4, H302 Eye Dam. 1, H318 Aquatic Chronic 2, H411	[1] [5]
Terphenyl, hydrogenated	REACH #: 01-2119488183-33 EC: 262-967-7 CAS: 61788-32-7	≤0.30	Aquatic Chronic 2, H411	[1] [2] [4]
terphenyl	REACH #: 01-2119488220-43 EC: 247-477-3 CAS: 26140-60-3	<0.025	Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10) See Section 16 for the full text of the H statements declared above.	[1]

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

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

[6] Additional disclosure due to company policy

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

SUB codes represent substances without registered CAS Numbers.

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SECTION 4: First aid measures

4.1 Description of first aid measures

- | | |
|-----------------------------------|--|
| Eye contact | : 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. 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. |

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- | | |
|---------------------|----------------------------------|
| Eye contact | : Causes serious eye irritation. |
| Inhalation | : Harmful if inhaled. |
| Skin contact | : Causes skin irritation. |
| Ingestion | : Harmful if swallowed. |

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 | : 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 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. |
|--|---|

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SECTION 5: Firefighting measures

Hazardous combustion products : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
sulfur 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).

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.

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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). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.

7.2 Conditions for safe storage, including any incompatibilities

- : Store between the following temperatures: 4 to 27°C (39.2 to 80.6°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. 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

Product/ingredient name	Exposure limit values
manganese dioxide	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 0.5 mg/m ³ , (as Mn) 8 hours.
sodium hydroxide	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 2 mg/m ³ 15 minutes.
Terphenyl, hydrogenated	EU OEL (Europe, 2/2017). STEL: 5 ppm 15 minutes. STEL: 48 mg/m ³ 15 minutes. TWA: 2 ppm 8 hours. TWA: 19 mg/m ³ 8 hours.

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SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : 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 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

Product/ingredient name	Type	Exposure	Value	Population	Effects
Manganese dioxide	DNEL	Long term Dermal	0.0021 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.00414 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.043 mg/m ³	General population	Systemic
bis(piperidinothiocarbonyl) hexasulphide	DNEL	Long term Inhalation	0.2 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	1.67 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1.67 mg/kg bw/day	General population	Systemic
sodium hydroxide	DNEL	Long term Inhalation	2.9 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	3.33 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	11.7 mg/m ³	Workers	Systemic
Terphenyl, hydrogenated	DNEL	Long term Inhalation	1 mg/m ³	General population	Local
	DNEL	Long term Oral	0.3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.5 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	8.38 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	25 mg/m ³	General population	Local
	DNEL	Long term Dermal	27.8 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	46.3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	83.8 mg/m ³	Workers	Local
	DNEL	Long term Inhalation			

PNECs

PNECs - Not available.

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.

Individual protection measures

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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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety glasses with side shields. Use eye protection according to EN 166.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
- Gloves** : nitrile rubber, butyl rubber, PVC, Viton®
- 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

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid.
- Colour** : Black.
- Odour** : Not available.
- Odour threshold** : Not available.
- pH** : insoluble in water.
- Melting point/freezing point** : May start to solidify at the following temperature: 0°C (32°F) This is based on data for the following ingredient: water.
- Initial boiling point and boiling range** : >37.78°C

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SECTION 9: Physical and chemical properties

Flash point	: Closed cup: 114°C
Evaporation rate	: Not available.
Flammability (solid, gas)	: liquid
Upper/lower flammability or explosive limits	: Not available.
Vapour pressure	: Highest known value: 3.2 kPa (23.8 mm Hg) (at 20°C) (water).
Relative density	: 1.71
Solubility(ies)	: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/ water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Stable under recommended storage and handling conditions (see Section 7).
Viscosity	: Kinematic (40°C): >0.21 cm ² /s
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.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

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SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
manganese dioxide	LD50 Oral	Rat	3478 mg/kg	-
sodium hydroxide	LD50 Oral	Rat	325 mg/kg	-
Poly(oxy-1,2-ethanediyl), α -[(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy-	LD50 Oral	Rat	3.5 g/kg	-
Terphenyl, hydrogenated	LD50 Oral	Rat	17500 mg/kg	-
terphenyl	LD50 Oral	Rat - Female	2304 mg/kg	-

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

Route	ATE value
Oral Inhalation (dusts and mists)	1244.8 mg/kg 3.73 mg/l

Irritation/Corrosion**Conclusion/Summary****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****Conclusion/Summary****Skin** : There are no data available on the mixture itself.**Respiratory** : There are no data available on the mixture itself.**Mutagenicity****Conclusion/Summary** : There are no data available on the mixture itself.**Carcinogenicity****Conclusion/Summary** : There are no data available on the mixture itself.**Reproductive toxicity****Conclusion/Summary** : There are no data available on the mixture itself.**Teratogenicity****Conclusion/Summary** : There are no data available on the mixture itself.**Specific target organ toxicity (single exposure)**

Not available.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
manganese dioxide	Category 2	Inhalation	brain

Aspiration hazard

Not available.

Information on likely routes of exposure : Not available.**Potential acute health effects****Inhalation** : Harmful if inhaled.**Ingestion** : Harmful if swallowed.**Skin contact** : Causes skin irritation.

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SECTION 11: Toxicological information

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 : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

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SECTION 12: Ecological information**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
sodium hydroxide	Acute EC50 40.4 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	48 hours
terphenyl	Acute EC50 0.022 mg/l Chronic NOEC 0.00322 mg/l	Daphnia Daphnia	48 hours 72 hours

Conclusion/Summary : There are no data available on the mixture itself.**12.2 Persistence and degradability****Conclusion/Summary** : There are no data available on the mixture itself.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
terphenyl	-	-	Not readily

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil**Soil/water partition coefficient (K_{oc})** : Not available.**Mobility** : Not available.**12.5 Results of PBT and vPvB assessment**

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Bis(piperidinothiocarbonyl) hexasulphide	No	N/A	N/A	No	N/A	N/A	N/A
Poly(oxy-1,2-ethanediyl), α-[(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy-	No	N/A	N/A	No	N/A	N/A	N/A
Terphenyl, hydrogenated	No	N/A	N/A	No	SVHC (Candidate)	Specified	Specified

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.**European waste catalogue (EWC)**

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SECTION 13: Disposal considerations

Waste code	Waste designation
08 04 09*	waste adhesives and sealants 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.

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 spilt material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Additional information

ADR/RID : None identified.

ADN : None identified.

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 Transport in bulk according to Annex II of Marpol and the IBC Code : 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

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SECTION 15: Regulatory information

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
Terphenyl, hydrogenated Poly(oxy-1,2-ethanediyl), α - [(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy-	vPvB Substance of equivalent concern for human health	Candidate Recommended	ED 61/2018 ED/169/2012	- 2/10/2014

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Ozone depleting substances (1005/2009/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

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
Acute Tox. 4, H302	Calculation method
Acute Tox. 4, H332	Calculation method
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
STOT RE 2, H373	Calculation method

Full text of abbreviated H statements

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SECTION 16: Other information

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H373 (inhalation)	May cause damage to organs through prolonged or repeated exposure if inhaled.
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.
H413	May cause long lasting harmful effects to aquatic life.

Full text of classifications [CLP/GHS]

Acute Tox. 4, H302	ACUTE TOXICITY (oral) - Category 4
Acute Tox. 4, H332	ACUTE TOXICITY (inhalation) - Category 4
Aquatic Acute 1, H400	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1, H410	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2, H411	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 4, H413	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4
Eye Dam. 1, H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Corr. 1A, H314	SKIN CORROSION/IRRITATION - Category 1A
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
STOT RE 2, H373 (inhalation)	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (inhalation) - Category 2
STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

History

Date of issue/ Date of revision : 18 June 2019

Date of previous issue : 14 December 2018

Prepared by : EHS

Version : 3.01

Disclaimer

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