SAFETY DATA SHEET

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

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

1.1 Product identifier

Product name: Flowcoat SF41 Part A

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

Identified uses: Reserved for industrial and professional use.
Uses advised against: Not for Consumer Use. For Industrial Use Only.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Importer/Supplier/Distributor Information

Tremco CPG Poland Sp. z o.o.
Ul. Marywilska 34
03-228 Warszawa
Poland

Telephone: +48 228798907
Fax: +48 228798918

Contact person : ehs.uk@flowcrete.com, www.flowcrete.com.pl

National Supplier

Tremco CPG UK Limited
Coupland Road
WN2 4HT Hindley Green, WIGAN
UK

Telephone: +44 1942251400
Fax: +44 1942251410

Contact person : www.tremcocpg.eu, uk.info@tremcocpg.com

1.4 Emergency telephone number: 111 / 0300 020 0155

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Health Hazards

Skin irritation	Category 2	H315: Causes skin irritation.
Serious eye irritation	Category 2	H319: Causes serious eye irritation.
Skin sensitiser	Category 1	H317: May cause an allergic skin reaction.
Respiratory sensitiser	Category 1A	H360F: May damage fertility.

Environmental hazards

Chronic hazards to the aquatic environment	Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements



Signal Words: Danger

Hazard Statement(s):
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H317: May cause an allergic skin reaction.
H360F: May damage fertility.
H411: Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention:
P273: Avoid release to the environment.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P391: Collect spillage.

Hazardous components which must be listed on the label:
Contains
bis[4-(2,3-epoxypropoxy)phenyl]propane
Palygorskite

Supplemental information
EUH205: Contains epoxy constituents. May produce an allergic reaction.
Restricted to professional users.

2.3 Other hazards

PBT/vPvB data
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Endocrine disrupting properties-Toxicity
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Endocrine disrupting properties-Ecotoxicity
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
bis[4-(2,3-epoxypropoxy) phenyl]propane	25 - <50%	1675-54-3	216-823-5	01-2119456619-26-XXXX;	No data available.	
Dolomite	20 - <50%	16389-88-1	240-440-2	Exempt;	No data available.	#
Talc (Mg3H2(SiO3)4)	5 - <10%	14807-96-6	238-877-9	01-2120140278-58-XXXX;	No data available.	#
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	1 - <5%	13463-67-7	236-675-5	No data available.	No data available.	#
reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis]	2,5 - <5%		701-263-0	No data available.	No data available.	
benzyl alcohol	1 - <5%	100-51-6	202-859-9	01-	Aquatic	

				2119492630-38-XXXX;	Toxicity (Acute): 1; Aquatic Toxicity (Chronic): 1	
reaction products of hexane-1,6-diol with 2-(chloromethyl) oxirane (1:2)	1 - <5%	933999-84-9		01-2119463471-41-XXXX;	No data available.	
Palygorskite	0,1 - <1%	12174-11-7		No data available.	No data available.	

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
# This substance has workplace exposure limit(s).
This substance is listed as SVHC.

Classification

Chemical name	Classification	Notes
bis[4-(2,3-epoxypropoxy)phenyl]propane	Classification: Skin Sens.: 1: H317; Eye Irrit.: 2: H319; Skin Irrit.: 2: H315; Aquatic Chronic: 2: H411; Aquatic Chronic: 2: H411 Specific concentration limit: Skin irritation Category 2, >= 5 %; Serious eye irritation Category 2, >= 5 %; Acute toxicity, oral: LD 50: > 2.000 mg/kg Acute toxicity, inhalation: LC 0: > 0 ppm Acute toxicity, dermal: LD 50: > 2.000 mg/kg	None.
Dolomite	Classification: None known.	None.
Talc (Mg3H2(SiO3)4)	Classification: None known. Acute toxicity, oral: LD 50: 5.000 mg/kg Acute toxicity, inhalation: LC 50: 2.100 mg/m3	None.
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	Classification: None known. Acute toxicity, oral: LD 50: 5.000 mg/kg Acute toxicity, inhalation: LC 50: 5,09 mg/l Acute toxicity, dermal: LD 50: >= 10.000 mg/kg	None.
reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis]	Classification: Skin Irrit.: 2: H315; Skin Sens.: 1A: H317; Aquatic Chronic: 2: H411 Acute toxicity, oral: LD 50: > 2.000 mg/kg Acute toxicity, dermal: LD 50: > 2.000 mg/kg	None.
benzyl alcohol	Classification: Acute Tox.: 4: H332; Acute Tox.: 4: H302	None.

	Acute toxicity, oral: LD 50: 1.570 mg/kg Acute toxicity, inhalation: NOAEC: 3.297 mg/m3 Acute toxicity, dermal: LD 50: > 2.000 mg/kg	
reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	Classification: Eye Irrit.: 2: H319; Skin Irrit.: 2: H315; Skin Sens.: 1: H317; Repr.: 1A: H360F; Aquatic Chronic: 3: H412 Acute toxicity, oral: LD 50: 1.681 mg/kg Acute toxicity, inhalation: NOEL: 0,035 mg/l Acute toxicity, dermal: NOEL: 2.000 mg/kg	None.
Palygorskite	Classification: Carc.: 1B: H350i	Note A, Note R

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Move into fresh air and keep at rest. Get medical attention if symptoms persist. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Remove contaminated clothing and shoes.

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician. Place unconscious person on his/her side in the recovery position and ensure breathing can take place.

Skin Contact: Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. Get medical attention if symptoms occur.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if symptoms occur.

Ingestion: If swallowed, rinse mouth with water (only if the person is conscious). Do not give victim anything to drink if he is unconscious. DO NOT induce vomiting. Get medical attention immediately.

Personal Protection for First-aid Responders: No data available.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: May cause skin and eye irritation.

Hazards: No data available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials. Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media: No data available.

5.2 Special hazards arising from the substance or mixture: During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters

Special fire-fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use water spray to keep fire-exposed containers cool.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Keep public away from danger area. See Section 8 of the SDS for Personal Protective Equipment.

6.1.1 For non-emergency personnel: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. Eliminate all sources of ignition. Provide adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid breathing vapours.

6.1.2 For emergency responders: No data available.

6.2 Environmental precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

6.3 Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

6.4 Reference to other sections: No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical Measures: No data available.

Local/Total ventilation: Use only with adequate ventilation.

Safe handling advice: Provide adequate ventilation. Avoid contact with eyes and prolonged or repeated contact with skin. Wear appropriate personal protective equipment. Wash at the end of each work shift and before eating, smoking or using the toilet. Do not smoke, use open fire or other sources of ignition.

Contact avoidance measures: Avoid contact with flame and heat source, prevent contact with direct sunlight

7.2 Conditions for safe storage, including any incompatibilities

Safe storage conditions: Store in original tightly closed container. Keep far from flame and heat source, prevent contact with direct sunlight Keep at temperature not exceeding 40°C. Store away from incompatible materials. Keep from freezing.

Safe packaging materials: No data available.

7.3 Specific end use(s): No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Chemical name	Type	Form of exposure	Exposure Limit Values		Source
Dolomite	TWA	Inhalable dust		10 mg/m3	EH40 WEL (12 2011)
	TWA	Respirable dust		4 mg/m3	EH40 WEL (12 2011)
Talc (Mg3H2(SiO3)4)	TWA	Respirable dust		1 mg/m3	EH40 WEL (2007)
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	TWA	Inhalable		10 mg/m3	EH40 WEL (2007)
	TWA	Respirable		4 mg/m3	EH40 WEL (2007)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

DNEL-Values

Remarks: DNEL-Values

Critical component	Type	Route of Exposure	Health Warnings	Remarks
Talc (Mg3H2(SiO3)4)	General population	Dermal	Systemic, long-term; 21,6 mg/kg	Effect on fertility
	Workers	Dermal	Systemic, long-term; 43,2 mg/kg	Effect on fertility
	General population	Oral	Systemic, long-term; 160 mg/kg	developmental toxicity / teratogenicity
	Workers	Dermal	Local, long-term; 4,54 mg/cm2	Acute toxicity
	Workers	Inhalation	Local, long-term; 3,6 mg/m3	Repeated dose toxicity
	General population	Oral	Systemic, short-term; 160 mg/kg	developmental toxicity / teratogenicity
	Workers	Eyes	Local effect;	No hazard identified
	Workers	Inhalation	Systemic, short-term; 2,16 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 2,16 mg/m3	Repeated dose toxicity
	General population	Eyes	Local effect;	No hazard identified
	General population	Inhalation	Local, long-term; 1,8 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, short-term; 1,08 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Local, short-term; 3,6 mg/m3	Repeated dose toxicity
	General population	Dermal	Local, long-term; 2,27 mg/cm2	Acute toxicity
	General population	Inhalation	Systemic, long-term; 1,08 mg/m3	Repeated dose toxicity
	General population	Inhalation	Local, short-term; 1,8 mg/m3	Repeated dose toxicity
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	General population	Inhalation	Local, long-term; 133 µg/m3	Repeated dose toxicity
	General population	Inhalation	Local, long-term; 28 µg/m3	Repeated dose toxicity
	Workers	Inhalation	Local, long-term; 170 µg/m3	Repeated dose toxicity
	General population	Inhalation	Local, long-term; 210 µg/m3	Repeated dose toxicity
	Workers	Inhalation	Local, long-term; 0,8 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Local, long-term; 1,25 mg/m3	Repeated dose toxicity
	General population	Eyes	Local effect;	No hazard identified
	Workers	Eyes	Local effect;	No hazard identified
reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis]	General population	Dermal	Systemic, long-term; 62,5 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 29,39 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 8,7 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 104,15 mg/kg	Repeated dose toxicity

	General population	Oral	Systemic, long-term; 6,25 mg/kg	Repeated dose toxicity
	General population	Eyes	Local effect;	No hazard identified
	Workers	Eyes	Local effect;	No hazard identified
	Workers	Dermal	Local, short-term; 0,0083 mg/cm2	Skin Sensitisation
benzyl alcohol	General population	Inhalation	Systemic, short-term; 32,3 mg/m3	Acute toxicity
	General population	Inhalation	Systemic, long-term; 12,9 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 25,8 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, short-term; 129 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, short-term; 40 mg/kg	Repeated dose toxicity
	General population	Dermal	Systemic, short-term; 20 mg/kg	Acute toxicity
	Workers	Inhalation	Systemic, long-term; 22 mg/m3	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 4 mg/kg	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 8 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Systemic, short-term; 110 mg/m3	Acute toxicity
	General population	Inhalation	Systemic, long-term; 5,4 mg/m3	Repeated dose toxicity
	General population	Oral	Systemic, short-term; 20 mg/kg	Acute toxicity
	General population	Dermal	Systemic, long-term; 4 mg/kg	Repeated dose toxicity
	Workers	Eyes	Local effect;	Low hazard (no threshold derived)
	General population	Eyes	Local effect;	Low hazard (no threshold derived)
reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	Workers	Inhalation	Systemic, short-term; 10,57 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 6 mg/kg	Repeated dose toxicity
	General population	Inhalation	Systemic, short-term; 5,29 mg/m3	Repeated dose toxicity
	General population	Oral	Systemic, short-term; 1,5 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Local, long-term; 0,44 mg/m3	irritation respiratory tract
	General population	Oral	Systemic, long-term; 1,5 mg/kg	Repeated dose toxicity
	General population	Inhalation	Local, long-term; 0,27 mg/m3	irritation respiratory tract
	Workers	Dermal	Local, long-term; 0,0226 mg/cm2	Skin Sensitisation
	Workers	Inhalation	Systemic, long-term; 10,57 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 5,29 mg/m3	Repeated dose toxicity
	General population	Eyes	Local effect;	Medium hazard (no threshold derived)
	General population	Dermal	Local, short-term; 0,0136 mg/cm2	Skin Sensitisation
	General population	Dermal	Local, long-term; 0,0136 mg/cm2	Skin Sensitisation
	General population	Dermal	Systemic, long-term; 3 mg/kg	Repeated dose toxicity

	Workers	Dermal	Local, short-term; 0,0226 mg/cm2	Skin Sensitisation
	Workers	Eyes	Local effect;	Medium hazard (no threshold derived)
propylene carbonate	Workers	Inhalation	Local, long-term; 20 mg/m3	Repeated dose toxicity
	Workers	Dermal	Local, long-term; 10 mg/cm2	
	General population	Inhalation	Local, long-term; 10 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 70,53 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 17,4 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 20 mg/kg	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 10 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 10 mg/kg	Repeated dose toxicity
	Workers	Eyes	Local effect;	Low hazard (no threshold derived)
	General population	Eyes	Local effect;	Low hazard (no threshold derived)
Triiron tetraoxide	General population	Eyes	Local effect;	No hazard identified
	Workers	Eyes	Local effect;	No hazard identified
Magnesium carbonate	General population	Oral	Systemic, long-term; 7,23 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, short-term; 7,23 mg/kg	Repeated dose toxicity

PNEC-Values

Remarks: PNEC-Values

Critical component	**Environmental compartment**	**PNEC-Values**	**Remarks**
bis[4-(2,3-epoxypropoxy)phenyl]propane	Predator	11 mg/kg	Oral
	Aquatic (freshwater)	0,006 mg/l	
	Sediment (marine water)	0,034 mg/kg	
	Sewage treatment plant	10 mg/l	
	Aquatic (marine water)	0,001 mg/l	
	Soil	0,065 mg/kg	Soil
	Sediment (freshwater)	0,341 mg/kg	
Talc (Mg3H2(SiO3)4)	Air	10 mg/m3	
	Sediment (freshwater)	31,33 mg/kg	
	Aquatic (marine water)	141,26 mg/l	
	Aquatic (freshwater)	597,97 mg/l	
	Sediment (marine water)	3,13 mg/kg	
reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis]	Aquatic (freshwater)	0,003 mg/l	
	Aquatic (marine water)	0 mg/l	
	Sediment (freshwater)	0,294 mg/kg	
	Soil	0,237 mg/kg	Soil
	Sediment (marine water)	0,029 mg/kg	
	Sewage treatment plant	10 mg/l	
benzyl alcohol	Sewage treatment plant	39 mg/l	
	Sediment (freshwater)	5,27 mg/kg	
	Aquatic (freshwater)	1 mg/l	
	Soil	0,456 mg/kg	Soil
	Sediment (marine water)	0,527 mg/kg	
	Aquatic (marine water)	0,1 mg/l	

reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	Sediment (marine water)	0,028 mg/kg	
	Sewage treatment plant	1 mg/l	
	Aquatic (freshwater)	0,011 mg/l	
	Sediment (freshwater)	0,283 mg/kg	
	Soil	0,223 mg/kg	Soil
	Aquatic (marine water)	0,001 mg/l	
propylene carbonate	Aquatic (marine water)	0,09 mg/l	
	Sewage treatment plant	7400 mg/l	
	Soil	0,81 mg/kg	Soil
	Aquatic (freshwater)	0,9 mg/l	

8.2 Exposure controls

Appropriate Engineering Controls: Observe good industrial hygiene practices. Observe occupational exposure limits and minimise the risk of inhalation of vapours and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection: Wear suitable goggles tested to EN ISO 16321.

Hand Protection: Additional Information: Use suitable protective gloves if risk of skin contact. Wear suitable gloves tested to EN374. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Wear chemical-resistant gloves and protective clothing appropriate for the risk of exposure. Recommended gloves:
Material: Nitrile rubber.
Glove thickness: 0,5 mm
Material: Butyl rubber.
Glove thickness: 0,5 mm

Skin and Body Protection: Wear suitable protective clothing as protection against splashing or contamination.

Respiratory Protection: In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment. Use respiratory equipment with gas filter, type A2.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned. Wash hands and face before breaks and after work and take a shower if necessary.

Environmental Controls: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Colour:	No data available.
Odour:	No data available.
Odour Threshold:	No data available.
Freezing point:	No data available.
Boiling Point:	146 °C
Flammability:	No data available.
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Flash Point:	> 100 °C
Auto-ignition temperature:	No data available.
Decomposition Temperature:	No data available.
pH:	No data available.
Viscosity	
Dynamic viscosity:	No data available.
Kinematic viscosity:	No data available.
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	No data available.
Solubility (other):	No data available.
Dissolution Rate:	No data available.
Partition coefficient (n-octanol/water):	No data available.
Dispersion Stability:	No data available.
Vapour pressure:	No data available.
Relative density:	No data available.
Density:	1,55 g/cm3
Bulk density:	No data available.
Relative vapour density:	No data available.

9.2 Other information

VOC content:	EC Directive 2004/42 < 110 g/l 2004/42/CE & UK SI 2012/1715/IIA(j)(500)

SECTION 10: Stability and reactivity

10.1	**Reactivity:**	No data available.
10.2	**Chemical stability:**	Material is stable under normal conditions.
10.3	**Possibility of hazardous reactions:**	No data available.
10.4	**Conditions to avoid:**	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
10.5	**Incompatible Materials:**	Avoid contact with acids and alkalis.
10.6	**Hazardous decomposition products:**	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product:	ATEmix, 21.416,45 mg/kg
Components:	
bis[4-(2,3-epoxypropoxy)phenyl]propane	LD 50, Rat, > 2.000 mg/kg, 1 = reliable without restrictions, according to specific guideline, Key study
Talc (Mg3H2(SiO3)4)	LD 50, Rat, 5.000 mg/kg, 2 = reliable with restrictions, Key study
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	LD 50, Rat, 5.000 mg/kg, 1 = reliable without restrictions, Weight of evidence LD 50, Rat, > 5.000 mg/kg, 1 = reliable without restrictions, according to specific guideline, Weight of evidence
reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'-[methylenebis]	LD 50, Rat, > 2.000 mg/kg, 1 = reliable without restrictions, according to specific guideline, Supporting study
benzyl alcohol	LD 50, Rat, Female, Male, 1.570 mg/kg, 2 = reliable with restrictions, according to specific guideline, other
reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	LD 50, Rat, 1.681 mg/kg, 1 = reliable without restrictions, according to specific guideline, Weight of evidence

Dermal

Product:	Not classified for acute toxicity based on available data.
Components:	
bis[4-(2,3-	LD 50, Rat, > 2.000 mg/kg, 1 = reliable without restrictions, according to

epoxypropoxy)phenyl]propane	specific guideline, Experimental result, Key study
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	LD 50, Hamster, >= 10.000 mg/kg
reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'-[methylenebis]	LD 50, Rat, > 2.000 mg/kg, 1 = reliable without restrictions, according to specific guideline, Experimental result, Key study
benzyl alcohol	LD 50, Rabbit, > 2.000 mg/kg, 2 = reliable with restrictions, according to specific guideline, Experimental result, Weight of Evidence study
reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	NOEL, Rat, 2.000 mg/kg, 1 = reliable without restrictions, according to specific guideline

Inhalation

Product:	ATEmix, 138 mg/l, Vapour ATEmix, 13,77 mg/l, Dust and mist
Components:	
bis[4-(2,3-epoxypropoxy)phenyl]propane	LC 0, Rat, 5 h, > 0 ppm, Vapour, No, 2 = reliable with restrictions, Vapour, Key study
Talc ($Mg_3H_2(SiO_3)_4$)	LC 50, Rat, 4 h, 2.100 mg/m3, Aerosol, Yes, 2 = reliable with restrictions, Aerosol
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	LC 50, Rat, 4 h, 5,09 mg/l, Inhalation, No, 2 = reliable with restrictions, Inhalation LC 50, Rat, 4 h, 3,43 mg/l, Inhalation, No, 2 = reliable with restrictions, Inhalation, Key study
benzyl alcohol	NOAEC, Rat, 4 h, 3.297 mg/m3, Aerosol, Yes, 1 = reliable without restrictions, Aerosol, Key study LC 50, Rat, 4 h, 4.178 mg/m3, Aerosol, Yes, 1 = reliable without restrictions, Aerosol, Key study
reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	NOEL, Rat, 4 h, 0,035 mg/l, Inhalation, Yes, 1 = reliable without restrictions, Inhalation

Repeated dose toxicity

Product:	Not classified based on available data.
Components:	
bis[4-(2,3-epoxypropoxy)phenyl]propane	NOAEL Rat, Female, Male, Dermal, 13 Weeks, >= 10 mg/kg, Dermal Experimental result, Key study
reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'-	NOAEL Rat, Female, Male, Oral, 13 Weeks, 250 mg/kg, Oral Experimental result, Key study

[methylenebis]	
benzyl alcohol	NOAEL Rat, Female, Male, Oral, 103 Weeks, 400 mg/kg, Oral Experimental result, Key study
reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	NOAEL Rat, Female, Male, Inhalation, 16 mg/m3, Inhalation NOAEL Rat, Female, Male, Oral, 24 h, 200 mg/kg, Oral Experimental result, Key study

Skin Corrosion/Irritation

Product:	Not classified based on available data.
Components:	
bis[4-(2,3-epoxypropoxy)phenyl]propane	Slightly irritating, in vivo, Rabbit, 24 - 72 h, Experimental result, Key study
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	not classified (CLP (1272/2008)), skin irritation / corrosion, other, Rabbit, 1 - 48 h, Experimental result, Key study
reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'-[methylenebis]	Slightly irritating, in vivo, Rabbit, 21 d, Experimental result, Key study
reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	Highly irritating, in vivo, Rabbit, 1 - 5 d, Experimental result, Supporting study Irritant, in vivo, Rabbit, 24 - 72 h, Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product:	Not classified based on available data.
Components:	
bis[4-(2,3-epoxypropoxy)phenyl]propane	Not irritating, in vivo, Rabbit, 24 - 72 h, OECD GHS Slightly irritating, in vivo, Rabbit, 24 h, Expert judgement
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	Not Classified, in vivo, Rabbit, 1 h
reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'-[methylenebis]	Not irritating, in vivo, Rabbit, 1 - 72 h
benzyl alcohol	Moderate irritant, in vivo, Rabbit, 1 - 7 d
reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	Moderate irritant, in vivo, Rabbit, 48 h, Expert judgement

Respiratory or Skin Sensitisation

Product: Not classified based on available data.

Components:

bis[4-(2,3-epoxypropoxy)phenyl]propane	Skin sensitisation:, Skin Sensitisation, Guinea pig, Not sensitising
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	Skin sensitisation:, in vivo, Guinea pig, Not Classified
benzyl alcohol	Skin sensitisation:, in vivo, Human, Not Classified
reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	Skin sensitisation:, in vivo, Guinea pig, Sensitising

Carcinogenicity

Product: Not classified based on available data.

Germ Cell Mutagenicity

In vitro

Product: Not classified based on available data.

In vivo

Product: Not classified based on available data.

Reproductive toxicity

Product: Not classified based on available data.

Specific Target Organ Toxicity - Single Exposure

Product: Not classified based on available data.

Specific Target Organ Toxicity - Repeated Exposure

Product: Not classified based on available data.

Aspiration Hazard

Product: Not classified based on available data.

11.2 Information on other hazards

Endocrine disrupting properties

Product: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other information

Product: No data available.

SECTION 12: Ecological information

12.1 Toxicity:

Acute hazards to the aquatic environment:

Toxicity to aquatic plants

Product:	Not classified based on available data.

Toxicity to microorganisms

Product:	Not classified based on available data.

Fish

Product:	Not classified based on available data.
Components:	
bis[4-(2,3-epoxypropoxy)phenyl]propane	LC 50, Oncorhynchus mykiss, 96 h, 2,3 mg/lsemi-static
Talc (Mg3H2(SiO3)4)	LC 50, Various, 96 h, 89.581,016 mg/lQSAR
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	LC 50, Pimephales promelas, 96 h, > 1.000 mg/lStatic
reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'-[methylenebis]	LC 50, Leuciscus idus, 48 h, 6,3 mg/lsemi-static
benzyl alcohol	LC 50, Lepomis macrochirus; Menidia beryllina, 96 h, 15 mg/lStatic LC 50, Oryzias latipes, 96 h, > 100 mg/l
reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	LC 50, Oncorhynchus mykiss, 96 h, 17,1 - 30,9 mg/lStatic

Aquatic Invertebrates

Product:	Not classified based on available data.
Components:	
bis[4-(2,3-epoxypropoxy)phenyl]propane	EC 50, Daphnia magna, 48 h, 1,7 mg/lStatic, Experimental result, Key study
Talc (Mg3H2(SiO3)4)	LC 50, Daphnid, 48 h, 36.812,359 mg/lQSAR, QSAR, Key study
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	EC 50, Daphnia magna, 48 h, > 1.000 mg/lStatic, Experimental result, Weight of evidence
reaction mass of 2,2'-	EC 50, Daphnia magna, 48 h, 3,5 mg/lStatic, Experimental result, Weight

[methylenebis(2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'-[methylenebis]	of evidence
benzyl alcohol	EC 50, Daphnia magna, 48 h, 230 mg/lStatic, Experimental result, Key study EC 50, Daphnia magna, 24 h, 55 mg/lStatic, Experimental result, Other EC 100, Daphnia magna, 24 h, 100 mg/lStatic, Experimental result, Other EC 50, Daphnia magna, 24 h, 55 mg/lStatic, Experimental result, Other LC 50, Daphnid, 48 h, 260,415 mg/lQSAR, QSAR, Key study
reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	EC 50, Daphnia magna, 48 h, 39 - 57 mg/lStatic, Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish

Product:	Not classified based on available data.
Components:	
Talc ($Mg_3H_2(SiO_3)_4$)	NOEL, Fish, 5.979,718 mg/l, QSAR, QSAR NOEL, Fish, 1.412,648 mg/l, QSAR, QSAR
benzyl alcohol	NOEL, Fish, 48,897 mg/l, QSAR, QSAR NOEC, Fish, 48,897 mg/l, estimated, QSAR

Aquatic Invertebrates

Product:	Not classified based on available data.
Components:	
bis[4-(2,3-epoxypropoxy)phenyl]propane	NOEC, Daphnia magna, 0,3 mg/l, semi-static, experimental result Experimental result, Key study
reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)] bis(oxirane) and 2,2'-[methylenebis]	NOEC, Daphnia magna, 0,3 mg/l, semi-static, experimental result Experimental result, Key study
benzyl alcohol	NOEC, Daphnia magna, 51 mg/l, semi-static, experimental result Experimental result, Key study EC 50, Daphnia magna, 66 mg/l, semi-static, experimental result Experimental result, Key study

12.2 Persistence and degradability

Biodegradation

Product:	Not classified based on available data.
Components:	
bis[4-(2,3-epoxypropoxy)phenyl]propane	82 %, 28 d, Detected in water. Experimental result, Key study
benzyl alcohol	97 %, 21 d, Detected in water. Experimental result, Key study

reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	47 %, 28 d, Detected in water. Experimental result, Key study

12.3 Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	Not classified based on available data.
Components:	
bis[4-(2,3-epoxypropoxy)phenyl]propane	31, Aquatic sediment QSAR, Key study
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	Danio rerio, 25,38, Aquatic sediment Experimental result, Weight of evidence
reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	3,57, Aquatic sediment QSAR, Key study

Partition Coefficient n-octanol / water (log Kow)

Not classified based on available data.

12.4 Mobility in soil:

Product: Not classified based on available data.

12.5 Results of PBT and vPvB assessment:

Product: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties:

Product: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects:

Additional ecological information

Product: No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information:	Dispose of waste and residues in accordance with local authority requirements.
Disposal methods:	This material and/or its container must be disposed of as hazardous waste.
Contaminated Packaging:	Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

SECTION 14: Transport information

ADR

14.1 UN number or ID number:	UN 3082
14.2 UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(epoxy resin number average mw <700)
14.3 Transport hazard class(es)	
Class:	9
Label(s):	9
Classification Code:	M6
Hazard No. (ADR):	90
Tunnel restriction code:	(-)
14.4 Packing group:	III
Limited quantity	5,00 L
Excepted quantity	E1
14.5 Environmental hazards	
Environmentally Hazardous:	No
14.6 Special precautions for user:	None.

IMDG

14.1 UN number or ID number:	UN 3082
14.2 UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(epoxy resin number average mw <700), Marine pollutant
14.3 Transport hazard class(es)	
Class:	9
Label(s):	9
EmS No.:	F-A, S-F
14.4 Packing group:	III
Limited quantity	005 L
Excepted quantity	E1
14.5 Environmental hazards	
Marine pollutant:	Yes
14.6 Special precautions for user:	None.

IATA

14.1 UN number or ID number:	UN 3082
14.2 UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3 Transport hazard class(es)	
Class:	9
Label(s):	9MI (Miscellaneous)
14.4 Packing group:	III
Passenger and cargo aircraft :	964
Limited quantity	None.
Excepted quantity	E1
14.5 Environmental hazards	
Environmentally Hazardous:	No
14.6 Special precautions for user:	None.
Passenger and cargo aircraft:	Allowed. 964
Cargo aircraft only :	Allowed. 964

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

UK. REACH, Annex XIV, Substances Subject to Authorization (Authorization List), as amended: None present or none present in regulated quantities.

UK. UK REACH Candidate List of substances of very high concern (SVHCs) for Authorisation: None present or none present in regulated quantities.

UK. Great Britain Assimilated Regulation (EU) 2019/1021 on Persistent Organic Pollutants, as amended: None present or none present in regulated quantities.

Regulation 2024/590/EC on substances that deplete the ozone layer, Annex I, Controlled Substances: None present or none present in regulated quantities.

Regulation 2024/590/EC on substances that deplete the ozone layer, Annex II, New Substances: None present or none present in regulated quantities.

UK. GB PIC List, Regulation (EU) 649/2012 as amended by EU Exit Regulations S.I. 2019/720 and S.I. 2020/1567, as amended:

Regulation	Chemical name	CAS-No.
Part 1	None present or none present in regulated quantities.	
Part 2	None present or none present in regulated quantities.	
Part 3	None present or none present in regulated quantities.	
Parts 4 and 5	None present or none present in regulated quantities.	

UK REACH List of restrictions (Annex 17):

Chemical name	CAS-No.	Number on list
bis[4-(2,3-epoxypropoxy)phenyl]propane	1675-54-3	3

benzyl alcohol	100-51-6	3

Control of Major Accident Hazards Regulations 2015 (COMAH):

Classification	Lower-tier Requirements	Upper-tier Requirements
E2. Hazardous to the aquatic environment	200 t	500 t

Other regulations

• 92/85/EEC:
Employment restrictions concerning pregnant and lactating women must be observed.
• 94/33/EC:
Employment restrictions concerning young persons must be observed.

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

SECTION 16: Other information

Date of first report version: 23.04.2026

Revision Date: 23.04.2026

Version #: 1.0

Abbreviations and acronyms:

EH40 WEL: UK. EH40 Workplace Exposure Limits (WELs)
EH40 WEL / TWA: Time Weighted Average (TWA)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EIGA - European Industrial Gases Association; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS -

Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Notes:

Note A	Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '...compounds' or '...salts'. In this case, the supplier is required to state on the label the correct name, due account being taken to Paragraph 1.1.1.4.
Note R	The classification as a carcinogen need not apply to fibres with a length weighted geometric mean diameter less than two standard geometric errors greater than 6 micrometers.

Key literature references and sources for data: No data available.

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Classification	**Classification procedure**
Skin irritation, Category 2	Calculation method
Serious eye irritation, Category 2	On basis of test data
Skin sensitiser, Category 1	On basis of test data
Respiratory sensitiser, Category 1A	
Chronic hazards to the aquatic environment, Category 2	On basis of test data

Full text of H-Statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H350i	May cause cancer by inhalation.
H360F	May damage fertility.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Training information: No data available.

Disclaimer:

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.