

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Ceramic-Polymer STP-ep-hv Part A, STP-ep-hv Cartridge Part A

Revision date: 15.03.2021

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

1.1. Product identifier

Ceramic-Polymer STP-ep-hv Part A, STP-ep-hv Cartridge Part A

UFI: JYEJ-M5S5-VXQ0-MKHY

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

Use of the substance/mixture

Coatings and paints, fillers, putties, thinners

1.3. Details of the supplier of the safety data sheet

Company name:	Chesterton International GmbH	
Street:	Am Lenzenfleck 23	
Place:	D-85737 Ismaning GERMANY	
Telephone:	+49 89 99 65 46 - 0	Telefax: +49 89 99 65 46 - 50
E-mail:	eu-sds@chesterton.com	
Contact person:	eu-sds@chesterton.com	Telephone: +49 89 99 65 46 - 0
E-mail:	eu-sds@chesterton.com	
Internet:	www.chesterton.com	
Responsible Department:	eu-sds@chesterton.com	

1.4. Emergency telephone number:

+49(0) 551 - 1 92 40 (GIZ-Nord, 24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin Irrit. 2; H315
Eye Irrit. 2; H319
Skin Sens. 1; H317
Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

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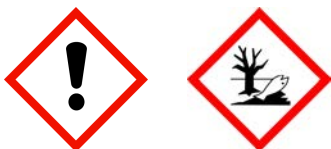
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Hazard components for labelling

Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane
Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)
Polypropyleneglycol-Epichlorhydrine-Copolymer
2,2'-[1-Methylethyliden]bis(4,1-phenyleneoxymethylen)]bisoxiran
Reaktionsprodukte aus Hexan-1,6-diol und 2-(Chlormethyl)oxiran (1:2)
Phenol, styrenated
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

Signal word: Warning

Pictograms:



Hazard statements

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P391 Collect spillage.
P501 Dispose of contents/container to an appropriate recycling or disposal facility.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification (Regulation (EC) No 1272/2008)	
	Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane	30 - < 35 %
	701-263-0	01-2119454392-40
	Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H317 H411	
933999-84-9	Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	5 - < 10 %
	618-939-5	01-2119463471-41
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 3; H315 H319 H317 H412	
9072-62-2	Polypropyleneglycol-Epichlorhydrine-Copolymer	1 - < 5 %
	Eye Irrit. 2, Skin Sens. 1, STOT SE 3, Aquatic Chronic 3; H319 H317 H335 H412	
1675-54-3	2,2'-[(1-Methylethyliden)bis(4,1-phenyleneoxymethylen)]bisoxiran	1 - < 5 %
	216-823-5	603-073-00-2
	01-2119456619-26	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411	
61788-44-1	Phenol, styrenated	< 1 %
	262-975-0	01-2119980970-27
	Skin Irrit. 2, Skin Sens. 1A, Aquatic Chronic 2; H315 H317 H411	
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	< 1 %
	271-846-8	603-103-00-4
	01-2119485289-22	
	Skin Irrit. 2, Skin Sens. 1; H315 H317	

Full text of H and EUH statements: see section 16.

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Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
	701-263-0	Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane	30 - < 35 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg	
933999-84-9	618-939-5	Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	5 - < 10 %
		oral: LD50 = 3010 mg/kg	
1675-54-3	216-823-5	2,2'-[(1-Methylethyliden)bis(4,1-phenyleneoxymethylen)]bisoxiran	1 - < 5 %
		inhalation: LC50 = ca. 24,6 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 19800 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100	
61788-44-1	262-975-0	Phenol, styrenated	< 1 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg	
68609-97-2	271-846-8	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	< 1 %
		oral: LD50 = > 2000 mg/kg	

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Change contaminated, saturated clothing.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.

Seek medical advice immediately.

Do not wash with: Solvents/Thinner

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

4.3. Indication of any immediate medical attention and special treatment needed

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First Aid, decontamination, treatment of symptoms.
After contact with skin, wash immediately with plenty of Lutrol.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

- Dry extinguishing powder.
- Carbon dioxide (CO₂).
- alcohol resistant foam.
- Water spray jet

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

- Carbon monoxide
- Carbon dioxide (CO₂).
- Nitrogen oxides (NO_x)

5.3. Advice for firefighters

Special protective equipment for firefighters Protective clothing.

In case of fire: Wear self-contained breathing apparatus.

Co-ordinate fire-fighting measures to the fire surroundings.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

- Provide adequate ventilation.
- Remove persons to safety.
- Safe handling: see section 7
- Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Cover drains. Adverse environmental effects

6.3. Methods and material for containment and cleaning up

For containment

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8

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Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep container tightly closed.
 Personal protection equipment: see section 8

Advice on protection against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on general occupational hygiene

Work in well-ventilated zones or use proper respiratory protection.
 Avoid contact with skin, eyes and clothes.
 Only wear fitting, comfortable and clean protective clothing.
 Wash hands and face before breaks and after work and take a shower if necessary.

Further information on handling

Wash hands before breaks and after work. Used working clothes should not be worn outside the work area.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep/Store only in original container.

Hints on joint storage

Keep away from:
 - Food and feedingstuffs
 - Oxidising agent

Further information on storage conditions

Keep away from:
 - Frost
 - Heat
 - Humidity

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
1344-28-1	Aluminium oxides, respirable dust	-	4		TWA (8 h)	
7727-43-7	Barium sulphate, respirable dust	-	5		TWA (8 h)	

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DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
	Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy}methyl)oxirane			
	Worker DNEL, long-term	inhalation	systemic	29,39 mg/m ³
	Worker DNEL, long-term	dermal	systemic	104,15 mg/kg bw/day
	Worker DNEL, long-term	inhalation	local	0,0083 mg/m ³
	Consumer DNEL, long-term	inhalation	systemic	8,7 mg/m ³
	Consumer DNEL, long-term	dermal	systemic	62,5 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	6,25 mg/kg bw/day
933999-84-9	Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)			
	Worker DNEL, long-term	inhalation	systemic	10,57 mg/m ³
	Worker DNEL, acute	inhalation	systemic	10,57 mg/m ³
	Worker DNEL, long-term	inhalation	local	0,44 mg/m ³
	Worker DNEL, long-term	dermal	systemic	6 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	5,29 mg/m ³
	Consumer DNEL, acute	inhalation	systemic	5,29 mg/m ³
	Consumer DNEL, long-term	inhalation	local	0,27 mg/m ³
	Consumer DNEL, long-term	dermal	systemic	3 mg/kg bw/day
	Consumer DNEL, acute	dermal	systemic	1,7 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	1,5 mg/kg bw/day
	Consumer DNEL, acute	oral	systemic	1,5 mg/kg bw/day
7727-43-7	Barium sulfate			
	Worker DNEL, long-term	inhalation	systemic	10 mg/m ³
	Worker DNEL, long-term	inhalation	local	10 mg/m ³
	Consumer DNEL, long-term	inhalation	systemic	10 mg/m ³
	Consumer DNEL, long-term	oral	systemic	13000 mg/kg bw/day
1344-28-1	Aluminium oxide			
	Worker DNEL, long-term	inhalation	systemic	3 mg/m ³
	Worker DNEL, long-term	inhalation	local	3 mg/m ³
	Worker DNEL, long-term	dermal	systemic	0,84 mg/kg bw/day

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Consumer DNEL, long-term	inhalation	systemic	0,75 mg/m ³
Consumer DNEL, long-term	inhalation	local	0,75 mg/m ³
Consumer DNEL, long-term	dermal	systemic	0,3 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	1,32 mg/kg bw/day
,			
1675-54-3	2,2'-[(1-Methylethyliden)bis(4,1-phenylenoxymethylen)]bisoxiran		
Worker DNEL, long-term	inhalation	local	310 mg/m ³
Consumer DNEL, long-term	inhalation	local	55 mg/m ³
Worker DNEL, long-term	inhalation	systemic	4,93 mg/m ³
Worker DNEL, long-term	dermal	systemic	0,75 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,87 mg/m ³
Consumer DNEL, long-term	dermal	systemic	0,0893 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,5 mg/kg bw/day
61788-44-1	Phenol, styrenated		
Worker DNEL, long-term	inhalation	systemic	7,4 mg/m ³
Worker DNEL, long-term	dermal	systemic	2,1 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	1,31 mg/m ³
Consumer DNEL, long-term	dermal	systemic	0,75 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,75 mg/kg bw/day
,			
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.		
Worker DNEL, long-term	inhalation	systemic	3,6 mg/m ³
Worker DNEL, long-term	dermal	systemic	1 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,87 mg/m ³
Consumer DNEL, long-term	dermal	systemic	0,5 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,5 mg/kg bw/day
,			

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PNEC values

CAS No	Substance	Value
Environmental compartment		Value
Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy}methyl)oxirane		
Freshwater		0,003 mg/l
Freshwater (intermittent releases)		0,025 mg/l
Marine water		0 mg/l
Freshwater sediment		0,294 mg/kg
Marine sediment		0,029 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,237 mg/kg
933999-84-9 Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)		
Freshwater		0,011 mg/l
Freshwater (intermittent releases)		0,115 mg/l
Marine water		0,001 mg/l
Freshwater sediment		0,283 mg/kg
Marine sediment		0,028 mg/kg
Micro-organisms in sewage treatment plants (STP)		1 mg/l
Soil		0,223 mg/kg
7727-43-7 Barium sulfate		
Freshwater		0,115 mg/l
Freshwater sediment		600,4 mg/kg
Micro-organisms in sewage treatment plants (STP)		62,2 mg/l
Soil		207,7 mg/kg
1675-54-3 2,2'-[(1-Methylethyliden)bis(4,1-phenyleneoxymethylen)]bisoxiran		
Freshwater		0,006 mg/l
Freshwater (intermittent releases)		0,018 mg/l
Marine water		0,001 mg/l
Freshwater sediment		0,341 mg/kg
Marine sediment		0,034 mg/kg
Secondary poisoning		11 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,065 mg/kg
61788-44-1 Phenol, styrenated		

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Freshwater	0,004 mg/l
Freshwater (intermittent releases)	0,046 mg/l
Marine water	0,0004 mg/l
Freshwater sediment	0,248 mg/kg
Marine sediment	0,0248 mg/kg
Micro-organisms in sewage treatment plants (STP)	36,2 mg/l
Soil	0,0473 mg/kg
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Freshwater	0,106 mg/l
Freshwater (intermittent releases)	0,072 mg/l
Marine water	0,011 mg/l
Freshwater sediment	307,16 mg/kg
Marine sediment	30,72 mg/kg
Micro-organisms in sewage treatment plants (STP)	10 mg/l
Soil	1,234 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection:

Eye glasses with side protection, goggles

Hand protection

Tested protective gloves must be worn: EN ISO 374

NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)

Wearing time with permanent contact: Thickness of the glove material: $\geq 0,4$ mm, Breakthrough time: >480 min

Wearing time with occasional contact (splashes): Thickness of the glove material: $\geq 0,1$ mm, Breakthrough time: > 30 min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Breakthrough times and swelling properties of the material must be taken into consideration.

Skin protection

Wear suitable protective clothing.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Combination filtering device A-P3

Self-contained respirator (breathing apparatus)

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	various	
Odour:	characteristic	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability		
Solid/liquid:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		> 65 °C
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		No data available
Water solubility:		No data available
Solubility in other solvents		
No information available.		
Partition coefficient n-octanol/water:		No data available
Vapour pressure:		No data available
Density:		~1,75 g/cm ³
Relative vapour density:		No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties
No information available.

Self-ignition temperature

Solid: No data available
Gas: No data available

Oxidizing properties
No information available.

Other safety characteristics

Evaporation rate: No data available
Sublimation point: No data available
Softening point: No data available
Pour point: No data available
Viscosity / dynamic: ~ 8000 mPa·s

Further Information

No information available.

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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

Does not decompose when used for intended uses.

No known hazardous decomposition products.

10.3. Possibility of hazardous reactions

Exothermic reaction with:

- Acid
- Oxidising agent

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

10.5. Incompatible materials

- Acid
- Oxidising agent

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane				
	oral	LD50 > 5000 mg/kg	Rat	Study report (1988)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Study report (1988)	OECD Guideline 402
933999-84-9	Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)				
	oral	LD50 3010 mg/kg	Rat	Study report (1981)	OECD Guideline 401
1675-54-3	2,2'-[(1-Methylethyliden)bis(4,1-phenyleneoxymethylen)]bisoxiran				
	oral	LD50 19800 mg/kg	Rabbit	Publication (1958)	Rabbits were orally gavaged with test ma
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2007)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 ca. 24.6 mg/l	Rat	AMA Arch. Ind. Hyg. Occ. Med. 10: 61-68	Rats were exposed to 8000 ppm of the tes
61788-44-1	Phenol, styrenated				
	oral	LD50 > 2000 mg/kg	Rat	Study report (2014)	OECD Guideline 423
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2014)	OECD Guideline 402
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.				
	oral	LD50 > 2000 mg/kg	Rat	Study report (1977)	Three groups each of four female rats re

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

May cause an allergic skin reaction. (Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane; Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2); Polypropyleneglycol-Epichlorhydrine-Copolymer; 2,2'-[(1-Methylethyliden)bis(4,1-phenyleneoxymethylen)]bisoxiran; Phenol, styrenated; oxirane, mono[(C12-14-alkyloxy)methyl] derivs.)

Carcinogenic/mutagenic/toxic effects for reproduction

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

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STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards

Endocrine disrupting properties

No data available

SECTION 12: Ecological information

12.1. Toxicity

No information available.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
	Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane					
	Acute fish toxicity	LC50 > 1000 mg/l	96 h	Oncorhynchus mykiss	Study report (1998)	OECD Guideline 203
	Acute algae toxicity	ErC50 > 1,8 mg/l	72 h	Raphidocelis subcapitata	Study report (1993)	OECD Guideline 201
	Acute crustacea toxicity	EL50 > 1000 mg/l	48 h	Daphnia magna	Study report (1998)	OECD Guideline 202
	Crustacea toxicity	NOEC 0,3 mg/l	21 d	Daphnia magna	Study report (1984)	OECD Guideline 211
933999-84-9	Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)					
	Acute fish toxicity	LC50 ca. 30 mg/l	96 h	Oncorhynchus mykiss	Study report (1990)	OECD Guideline 203
	Acute crustacea toxicity	EC50 ca. 39 - ca. 57 mg/l	48 h	Daphnia magna	Study report (1989)	OECD Guideline 202
1675-54-3	2,2'-[(1-Methylethyliden)bis(4,1-phenyleneoxymethylen)]bisoxiran					
	Acute fish toxicity	LC50 3,6 mg/l	96 h	Oncorhynchus mykiss	Study report (1982)	OECD Guideline 203
	Acute algae toxicity	ErC50 > 100 mg/l	72 h	Raphidocelis subcapitata	Study report (2007)	OECD Guideline 201
	Acute crustacea toxicity	EC50 2,8 mg/l	48 h	Daphnia magna	REACH Registration Dossier	OECD Guideline 202
	Crustacea toxicity	NOEC 0,3 mg/l	21 d	Daphnia magna	REACH Registration Dossier	OECD Guideline 211
61788-44-1	Phenol, styrenated					
	Acute fish toxicity	LC50 5,6 mg/l	96 h		REACH Registration Dossier	other: Refer below principle
	Acute algae toxicity	ErC50 20,42 mg/l	72 h	Chlorella vulgaris	REACH Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 4,6 mg/l	48 h	Daphnia magna	REACH Registration Dossier	OECD Guideline 202
	Fish toxicity	NOEC 0,0618 mg/l	63 d	Danio rerio	REACH Registration Dossier	other: OECD 234 Fish Sexual Development

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	Crustacea toxicity	NOEC	0,2 mg/l	21 d	Daphnia magna	REACH Registration Dossier	other: Refer below principle
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.						
	Acute fish toxicity	LL50	> 100 mg/l	96 h	Oncorhynchus mykiss	Study report (2015)	OECD Guideline 203
	Crustacea toxicity	NOEC	56 mg/l	21 d	Daphnia magna	(2017)	OECD Guideline 211

12.2. Persistence and degradability

No information available.

CAS No	Chemical name	Method	Value	d	Source
		Evaluation			
1675-54-3	2,2'-[(1-Methylethyliden)bis(4,1-phenyleneoxymethylen)]bisoxiran				
	OECD 302B		12%	28	
	Not readily biodegradable (according to OECD criteria)				
61788-44-1	Phenol, styrenated				
	OECD 301F		7%	28	
	Not readily biodegradable (according to OECD criteria)				
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.				
	OECD 301F		87%	28	

12.3. Bioaccumulative potential

No information available.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
	Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane	2,7
933999-84-9	Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	ca. 0,822
1675-54-3	2,2'-[(1-Methylethyliden)bis(4,1-phenyleneoxymethylen)]bisoxiran	>= 2,64
61788-44-1	Phenol, styrenated	3,03
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	3,77

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BCF

CAS No	Chemical name	BCF	Species	Source
	Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy}methyl)oxirane	150		Other company data (
933999-84-9	Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	3,57		Publication (2009)
1675-54-3	2,2'-[[(1-Methylethylidene)bis(4,1-phenylenoxy methylene)]bisoxiran	31		Study report (2010)
61788-44-1	Phenol, styrenated	11440		Estimation Programs
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	>= 160		REACH Registration D

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:

UN 3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)

14.3. Transport hazard class(es):

9

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14.4. Packing group: III
 Hazard label: 9
 Classification code: M6
 Special Provisions: 274 335 375 601
 Limited quantity: 5 L
 Excepted quantity: E1
 Transport category: 3
 Hazard No: 90
 Tunnel restriction code: -

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (epoxy resin)

14.3. Transport hazard class(es): 9

14.4. Packing group: III
 Hazard label: 9
 Classification code: M6
 Special Provisions: 274 335 375 601
 Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (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)

14.3. Transport hazard class(es): 9

14.4. Packing group: III
 Hazard label: 9
 Special Provisions: 274, 335, 969
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-A, S-F

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (epoxy resin)

14.3. Transport hazard class(es): 9

14.4. Packing group: III
 Hazard label: 9
 Special Provisions: A97 A158 A197 A215
 Limited quantity Passenger: 30 kg G
 Passenger LQ: Y964
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 964
 IATA-max. quantity - Passenger: 450 L

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IATA-packing instructions - Cargo: 964
IATA-max. quantity - Cargo: 450 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes
Danger releasing substance: epoxy resin

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

Information according to Directive 2012/18/EU (SEVESO III): E2 Hazardous to the Aquatic Environment

National regulatory information

Water hazard class (D): 2 - obviously hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

Reaction mass of 2,2'-[methylenebis(2,1-phenyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]bis(oxirane) and 2-({2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy)methyl}oxirane

Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)

2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxiran

Phenol, styrenated

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernat le transport des marchandises dangereuses par chemin de fer

(Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Refulations by the "International Air Transport Association" (IATA)

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ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 CLP: Classification, labelling and Packaging
 REACH: Registration, Evaluation and Authorization of Chemicals
 GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
 UN: United Nations
 CAS: Chemical Abstracts Service
 DNEL: Derived No Effect Level
 DMEL: Derived Minimal Effect Level
 PNEC: Predicted No Effect Concentration
 ATE: Acute toxicity estimate
 LC50: Lethal concentration, 50%
 LD50: Lethal dose, 50%
 LL50: Lethal loading, 50%
 EL50: Effect loading, 50%
 EC50: Effective Concentration 50%
 ErC50: Effective Concentration 50%, growth rate
 NOEC: No Observed Effect Concentration
 BCF: Bio-concentration factor
 PBT: persistent, bioaccumulative, toxic
 vPvB: very persistent, very bioaccumulative
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships
 IBC: Intermediate Bulk Container
 SVHC: Substance of Very High Concern

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)