



## SAFETY DATA SHEET

### S-RE1 part A

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

##### 1.1. Product identifier

Product name                      S-RE1 part A

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

Identified uses                      Two-component, epoxy-based adhesive. Resin.

##### 1.3. Details of the supplier of the safety data sheet

Supplier                              pgb-Polska Sp. z. o. o.  
    ul. Fryderyka Willhelma Redena 3  
    41 - 807 Zabrze, Poland  
    Tel. +48 (32) 330 26 10  
    Fax +48 (32) 330 26 20  
    biuro@pgb-polska.com  
    www.pgb-polska.com

##### 1.4. Emergency telephone number

Emergency telephone              +48 (32) 330 26 10 (Mon – Fri 08:00 – 17:00)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

Physical hazards                      Not Classified

Health hazards                        Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

Environmental hazards              Aquatic Chronic 2 - H411

##### 2.2. Label elements

###### Hazard pictograms



Signal word                              Warning

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

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<b>Precautionary statements</b>	<p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P391 Collect spillage.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
<b>Contains</b>	EPOXY RESIN (Number average MW <= 700 ), EPOXY PHENOL FORMALDEHYDE RESIN, REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)
<b>Supplementary precautionary statements</b>	<p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p>

### 2.3. Other hazards

#### SECTION 3: Composition/information on ingredients

##### 3.2. Mixtures

<b>EPOXY RESIN (Number average MW &lt;= 700 )</b>	<b>50-80%</b>
CAS number: 25068-38-6	EC number: 500-033-5
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	
<b>EPOXY PHENOL FORMALDEHYDE RESIN</b>	<b>20-50%</b>
CAS number: 9003-36-5	EC number: 500-006-8
	REACH registration number: 01-2119454392-40
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	

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<b>REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)</b>	<b>10-20%</b>
CAS number: 933999-84-9	EC number: 618-939-5
	REACH registration number: 01-2119463471-41
<b>Classification</b> Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1A - H317 Aquatic Chronic 3 - H412	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**Composition comments** CAS 28064-14-4 = CAS 9003-36-5 (EU) CAS 933999-84-9 = CAS 16096-31-4 (RoW)

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>Inhalation</b>	Remove affected person from source of contamination. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Do not induce vomiting. Get medical attention immediately.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

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

<b>Inhalation</b>	May cause respiratory irritation.
<b>Ingestion</b>	May cause stomach pain or vomiting.
<b>Skin contact</b>	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. May cause sensitisation by skin contact.
<b>Eye contact</b>	Irritating to eyes.

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

**Notes for the doctor** No specific recommendations. If in doubt, get medical attention promptly.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
<b>Unsuitable extinguishing media</b>	Do not use water, if avoidable.

#### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	Not considered to be a significant hazard due to the small quantities used.
<b>Hazardous combustion products</b>	Oxides of carbon. Oxides of nitrogen.

#### 5.3. Advice for firefighters

**Protective actions during firefighting** No specific requirements are anticipated under normal conditions of use.

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**Special protective equipment for firefighters**      Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions**      Wear protective clothing as described in Section 8 of this safety data sheet.

#### 6.2. Environmental precautions

**Environmental precautions**      Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up**      Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

#### 6.4. Reference to other sections

**Reference to other sections**      For personal protection, see Section 8. Collect and dispose of spillage as indicated in Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions**      Avoid contact with eyes. Avoid contact with skin.

**Advice on general occupational hygiene**      Do not eat, drink or smoke when using this product. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions**      Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use.

#### 7.3. Specific end use(s)

**Specific end use(s)**      The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure controls/Personal protection

#### 8.1. Control parameters

#### EPOXY RESIN (Number average MW <= 700 ) (CAS: 25068-38-6)

**DNEL**      Industry - Inhalation; Long term systemic effects: 12.25 mg/m<sup>3</sup>  
 Industry - Inhalation; Short term systemic effects: 12.25 mg/m<sup>3</sup>  
 Industry - Dermal; Long term systemic effects: 8.33 mg/kg/day  
 Industry - Dermal; Short term systemic effects: 8.33 mg/kg/day  
 REACH dossier information

**PNEC**      - Fresh water; 0.006 mg/l  
 - marine water; 0.0006 mg/l  
 - Intermittent release; 0.018 mg/l  
 - STP; 10 mg/l  
 - Sediment (Freshwater); 0.996 mg/kg  
 - Sediment (Marinewater); 0.0996 mg/kg  
 - Soil; 0.196 mg/kg  
 REACH dossier information

#### REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYLOXIRANE(1:2) (CAS: 933999-84-9)

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<b>DNEL</b>	<p>Industry - Inhalation; Long term systemic effects: 4.9 mg/m<sup>3</sup></p> <p>Industry - Inhalation; Short term systemic effects: 4.9 mg/m<sup>3</sup></p> <p>Industry - Inhalation; Long term local effects: 0.44 mg/m<sup>3</sup></p> <p>Industry - Dermal; Long term systemic effects: 2.8 mg/kg/day</p> <p>Industry - Dermal; Long term local effects: 22.6 µg/cm<sup>2</sup></p> <p>Industry - Dermal; Short term local effects: 22.6 µg/cm<sup>2</sup></p> <p>REACH dossier information</p>
<b>PNEC</b>	<p>- Fresh water; 0.0115 mg/l</p> <p>- marine water; 0.00115 mg/l</p> <p>- Intermittent release; 0.115 mg/l</p> <p>- STP; 1 mg/l</p> <p>- Sediment (Freshwater); 0.283 mg/kg</p> <p>- Sediment (Marinewater); 0.0283 mg/kg</p> <p>- Soil; 0.223 mg/kg</p> <p>REACH dossier information</p>

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

No specific ventilation requirements.

#### Eye/face protection

Wear eye protection.

#### Hand protection

Wear protective gloves made of the following material: Nitrile rubber.

#### Hygiene measures

Provide eyewash station. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated.

#### Respiratory protection

Not relevant.

#### Environmental exposure controls

Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Liquid.
<b>Colour</b>	White/off-white.
<b>Odour</b>	Characteristic.
<b>Odour threshold</b>	Not determined.
<b>pH</b>	Not applicable.
<b>Melting point</b>	Not applicable.
<b>Initial boiling point and range</b>	>35°C @ 760 mm Hg
<b>Flash point</b>	>100°C Closed cup.
<b>Evaporation rate</b>	No information available.
<b>Evaporation factor</b>	Not applicable.

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<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Other flammability</b>	Not available.
<b>Vapour pressure</b>	<500 Pa @ °C
<b>Vapour density</b>	No information available.
<b>Relative density</b>	1.2 - 1.3
<b>Bulk density</b>	Not applicable.
<b>Solubility(ies)</b>	Insoluble in water.
<b>Partition coefficient</b>	Not determined.
<b>Auto-ignition temperature</b>	Not determined.
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	Not determined.
<b>Explosive properties</b>	No information available.
<b>Explosive under the influence of a flame</b>	No
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidising.

### 9.2. Other information

#### SECTION 10: Stability and reactivity

##### 10.1. Reactivity

**Reactivity** The following materials may react with the product: Acids. Amides. Amines. Phenols, cresols.

##### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended.

##### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** The following materials may react with the product: Acids. Amides. Amines. Phenols, cresols.

##### 10.4. Conditions to avoid

**Conditions to avoid** Avoid contact with acids and alkalis.

##### 10.5. Incompatible materials

**Materials to avoid** Acids. Amines. Amides.

##### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Oxides of carbon. Oxides of nitrogen.

#### SECTION 11: Toxicological information

##### 11.1. Information on toxicological effects

###### Skin sensitisation

**Skin sensitisation** Sensitising.

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<b>General information</b>	Contains epoxy constituents. May produce an allergic reaction.
<b>Inhalation</b>	No specific health hazards known.
<b>Ingestion</b>	No harmful effects expected from quantities likely to be ingested by accident.
<b>Skin contact</b>	Irritating to skin. May cause sensitisation by skin contact.
<b>Eye contact</b>	May cause severe eye irritation.
<b>Acute and chronic health hazards</b>	Irritating to skin. Irritating to eyes.
<b>Route of exposure</b>	Skin and/or eye contact
<b>Medical symptoms</b>	Skin irritation.
<b>Medical considerations</b>	Skin disorders and allergies.

### Toxicological information on ingredients.

#### REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYLOXIRANE(1:2)

<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD <sub>50</sub> ) mg/kg)	3,010.0
Species	Rat

### SECTION 12: Ecological information

#### 12.1. Toxicity

##### Ecological information on ingredients.

#### EPOXY RESIN (Number average MW <= 700 )

<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC <sub>50</sub> , 96 hours: 2 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC <sub>50</sub> , 48 hours: 1.8 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC <sub>50</sub> , 72 hours: 11 mg/l, Freshwater algae EC <sub>50</sub> , 96 hours: 220 mg/l, Scenedesmus subspicatus
<u>Chronic aquatic toxicity</u>	
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.3 mg/l, Daphnia magna

#### REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYLOXIRANE(1:2)

<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC <sub>50</sub> , 96 hours: 30 mg/l, Oncorhynchus mykiss (Rainbow trout)

#### 12.2. Persistence and degradability

**Persistence and degradability** The product is not biodegradable.

##### Ecological information on ingredients.

#### EPOXY RESIN (Number average MW <= 700 )

<b>Biodegradation</b>	- 12% Degradation (%): 28 days
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### REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYLOXIRANE(1:2)

**Biodegradation** - 47% Degradation (%): 28 days  
OECD 301D

#### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not determined.

#### Ecological information on ingredients.

##### EPOXY RESIN (Number average MW <= 700 )

**Bioaccumulative potential** May accumulate in soil and water systems. BCF: 100 - 3000,

**Partition coefficient** log Pow: 3.242 Estimated Value

### REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYLOXIRANE(1:2)

**Bioaccumulative potential** BCF: < 100, Estimated Value

**Partition coefficient** log Pow: -0.272 Estimated Value

#### 12.4. Mobility in soil

**Mobility** The product is insoluble in water and will spread on the water surface. The product is non-volatile. Semi-mobile.

#### Ecological information on ingredients.

##### EPOXY RESIN (Number average MW <= 700 )

**Mobility** Semi-mobile.

**Adsorption/desorption coefficient** Water - Koc: 1800 - 4400 @ 25°C Estimated Value

**Henry's law constant** 4.93E-05 Pa m<sup>3</sup>/mol @ 25°C

#### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

#### Ecological information on ingredients.

##### EPOXY RESIN (Number average MW <= 700 )

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

#### 12.6. Other adverse effects

### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

**Disposal methods** Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Dispose of waste via a licensed waste disposal contractor.

**Waste class** The waste code classification is to be carried out according to the European Waste Catalogue (EWC).



## S-RE1 part A

**SECTION 14: Transport information****14.1. UN number**

UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

**14.2. UN proper shipping name**

<b>Proper shipping name (ADR/RID)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700 ), EPOXY PHENOL FORMALDEHYDE RESIN)
<b>Proper shipping name (IMDG)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700 ), EPOXY PHENOL FORMALDEHYDE RESIN)
<b>Proper shipping name (ICAO)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700 ), EPOXY PHENOL FORMALDEHYDE RESIN)
<b>Proper shipping name (ADN)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700 ), EPOXY PHENOL FORMALDEHYDE RESIN)

**14.3. Transport hazard class(es)**

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

**Transport labels****14.4. Packing group**

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

**14.5. Environmental hazards**

Environmentally hazardous substance/marine pollutant

**14.6. Special precautions for user**

EmS	F-A, S-F
ADR transport category	3

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Emergency Action Code      •3Z

Hazard Identification Number    90  
(ADR/RID)

Tunnel restriction code        (-)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to    Not applicable.  
Annex II of MARPOL 73/78  
and the IBC Code

### **SECTION 15: Regulatory information**

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

Guidance                              Workplace Exposure Limits EH40.

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

#### Inventories

##### US - TSCA 12(b) Export Notification

*REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)*

### **SECTION 16: Other information**

Revision comments                NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date                      26/10/2020

Version number                  1.002

Supersedes date                 02/05/2018

SDS number                        21010

Hazard statements in full        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.  
H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



## SAFETY DATA SHEET S-RE1 part B

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

#### 1.1. Product identifier

**Product name** S-RE1 part B

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

**Identified uses** Two-component, epoxy-based adhesive. Hardener.

#### 1.3. Details of the supplier of the safety data sheet

**Supplier** pgb-Polska Sp. z. o. o.  
ul. Fryderyka Willhelma Redena 3  
41 - 807 Zabrze, Poland  
Tel. +48 (32) 330 26 10  
Fax +48 (32) 330 26 20  
biuro@pgb-polska.com  
www.pgb-polska.com

#### 1.4. Emergency telephone number

**Emergency telephone** +48 (32) 330 26 10 (Mon – Fri 08:00 – 17:00)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

**Physical hazards** Not Classified

**Health hazards** Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Repr. 2 - H361

**Environmental hazards** Aquatic Chronic 3 - H412

**Human health** Corrosive. Prolonged contact causes serious eye and tissue damage. Contains a substance/a group of substances which may damage fertility and the unborn child.

**Environmental** The product contains a substance which may have hazardous effects on the environment.

#### 2.2. Label elements

##### Hazard pictograms



**Signal word**

Danger

##### Hazard statements

H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H361 Suspected of damaging fertility or the unborn child.  
H412 Harmful to aquatic life with long lasting effects.

## S-RE1 part B

<b>Precautionary statements</b>	<p>P201 Obtain special instructions before use.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P260 Do not breathe vapours.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/ attention.</p>
<b>Contains</b>	<p>STYRENATED PHENOL, 2-PIPERAZIN-1-YLETHYLAMINE, 1,3-CYCLOHEXANE BIS(METHYLAMINE), SALICYLIC ACID</p>
<b>Supplementary precautionary statements</b>	<p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273 Avoid release to the environment.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P401 Store in accordance with local regulations.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>

### 2.3. Other hazards

#### SECTION 3: Composition/information on ingredients

##### 3.2. Mixtures

<b>CRYSTALLINE SILICA</b>	<b>20-50%</b>
CAS number: 14808-60-7                      EC number: 238-878-4                      REACH registration number: 01-2120770509-45	
<b>Classification</b>	
STOT RE 2 - H373	
<b>STYRENATED PHENOL</b>	<b>10-20%</b>
CAS number: 61788-44-1                      EC number: 262-975-0                      REACH registration number: 01-2119979575-18	
<b>Classification</b>	
Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1A - H317 Aquatic Chronic 2 - H411	

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<b>2-PIPERAZIN-1-YLETHYLAMINE</b> <span style="float: right;"><b>5-10%</b></span>		
CAS number: 140-31-8	EC number: 205-411-0	
<b>Classification</b> Acute Tox. 4 - H302 Acute Tox. 3 - H311 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Repr. 2 - H361 STOT RE 1 - H372 Aquatic Chronic 3 - H412		
<b>1,3-CYCLOHEXANEBIS(METHYLAMINE)</b> <span style="float: right;"><b>1-5%</b></span>		
CAS number: 2579-20-6	EC number: 219-941-5	REACH registration number: 01-2119543741-41
<b>Classification</b> Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1A - H314 Eye Dam. 1 - H318 Aquatic Chronic 3 - H412		
<b>SALICYLIC ACID</b> <span style="float: right;"><b>1-5%</b></span>		
CAS number: 69-72-7	EC number: 200-712-3	REACH registration number: 01-2119486984-17
<b>Classification</b> Acute Tox. 4 - H302 Eye Dam. 1 - H318 Repr. 2 - H361d		
<b>BIS(ISOPROPYL)NAPHTHALENE</b> <span style="float: right;"><b>&gt;0.5 &lt;1.0%</b></span>		
CAS number: 38640-62-9	EC number: 254-052-6	REACH registration number: 01-2119565150-48
M factor (Chronic) = 1		
<b>Classification</b> Asp. Tox. 1 - H304 Aquatic Chronic 1 - H410		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

<b>Inhalation</b>	Remove affected person from source of contamination. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Do not induce vomiting. Get medical attention immediately.

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**Skin contact** Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.

**Eye contact** Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

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

**Inhalation** Irritation of nose, throat and airway.

**Ingestion** May cause stomach pain or vomiting.

**Skin contact** Burning pain and severe corrosive skin damage. Blistering may occur. Chemical burns.

**Eye contact** May cause chemical eye burns. May cause blurred vision and serious eye damage.

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

**Notes for the doctor** No specific recommendations. If in doubt, get medical attention promptly.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

**Unsuitable extinguishing media** Do not use water, if avoidable.

### 5.2. Special hazards arising from the substance or mixture

**Specific hazards** No specific firefighting precautions applicable when small quantities are involved in the fire.

**Hazardous combustion products** Oxides of carbon. Oxides of nitrogen.

### 5.3. Advice for firefighters

**Protective actions during firefighting** No specific firefighting precautions known.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet.

### 6.2. Environmental precautions

**Environmental precautions** Collect and dispose of spillage as indicated in Section 13. Contain spillage with sand, earth or other suitable non-combustible material. Avoid discharge into drains or watercourses or onto the ground.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. Collect and dispose of spillage as indicated in Section 13.

## SECTION 7: Handling and storage

## S-RE1 part B

### 7.1. Precautions for safe handling

<b>Usage precautions</b>	Avoid contact with skin. Avoid contact with eyes. Do not empty into drains.
<b>Advice on general occupational hygiene</b>	Do not eat, drink or smoke when using this product. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

### 7.2. Conditions for safe storage, including any incompatibilities

<b>Storage precautions</b>	Keep away from food and drink. Keep container tightly sealed when not in use.
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### 7.3. Specific end use(s)

<b>Specific end use(s)</b>	The identified uses for this product are detailed in Section 1.2.
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## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

#### Occupational exposure limits

#### **1,3-CYCLOHEXANEBIS(METHYLAMINE)**

Long-term exposure limit (8-hour TWA): WEL 0.1 ppm(Sk) 0.8 mg/m<sup>3</sup>(Sk)

Sk

WEL = Workplace Exposure Limit.  
Sk = Can be absorbed through skin.

#### STYRENATED PHENOL (CAS: 61788-44-1)

<b>DNEL</b>	REACH dossier information Industry - Dermal; Long term systemic effects: 0.41666667 mg/kg/day Industry - Inhalation; Long term systemic effects: 0.734649123 mg/m <sup>3</sup>
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<b>PNEC</b>	REACH dossier information - STP; 1.0638 mg/l - Fresh water; 0.001371 mg/l - marine water; 0.0001371 mg/l - Sediment (Freshwater); 43.65269484 mg/kg - Sediment (Marinewater); 43.65269484 mg/kg - Soil; 20.64517608 mg/kg - Intermittent release; 0.01371 mg/l
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#### 2-PIPERAZIN-1-YLETHYLAMINE (CAS: 140-31-8)

<b>DNEL</b>	REACH dossier information Industry - Dermal; Long term systemic effects: 3.3 mg/kg/day Industry - Dermal; Long term local effects: 0.006 mg/kg/day Industry - Dermal; Short term local effects: 0.04 mg/kg/day Industry - Inhalation; Long term systemic effects: 3.6 mg/m <sup>3</sup> Industry - Dermal; Short term systemic effects: 20 mg/kg/day Industry - Inhalation; Short term systemic effects: 21.4 mg/m <sup>3</sup>
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<b>PNEC</b>	REACH dossier information - Fresh water; 0.058 mg/l - marine water; 0.0058 mg/l - Sediment (Marinewater); 21.5 mg/kg - Sediment (Freshwater); 215 mg/kg - Intermittent release; 0.58 mg/l - STP; 250 mg/l - Soil; 42.9 mg/kg
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## S-RE1 part B

### 1,3-CYCLOHEXANEBIS(METHYLAMINE) (CAS: 2579-20-6)

**DNEL** REACH dossier information  
 Industry - Dermal; Short term systemic effects: 6 mg/kg/day  
 Industry - Inhalation; Long term systemic effects: 0.71 mg/m<sup>3</sup>  
 Industry - Inhalation; Short term systemic effects: 21.2 mg/m<sup>3</sup>  
 Industry - Dermal; Long term systemic effects: 0.2 mg/kg/day

**PNEC** REACH dossier information  
 - STP; 10 mg/l  
 - Fresh water; 0.0331 mg/l  
 - Intermittent release; 0.331 mg/l  
 - marine water; 0.00331 mg/l

### SALICYLIC ACID (CAS: 69-72-7)

**DNEL** REACH dossier information  
 Industry - Inhalation; Long term systemic effects: 16 mg/m<sup>3</sup>  
 Industry - Dermal; Long term systemic effects: 2 mg/kg/day

**PNEC** REACH dossier information  
 - Intermittent release; 1 mg/l  
 - Fresh water; 0.2 mg/l  
 - Soil; 0.166 mg/kg  
 - marine water; 0.02 mg/l  
 - Sediment (Freshwater); 1.42 mg/kg  
 - Sediment (Marinewater); 0.142 mg/kg  
 - STP; 162 mg/l

### BIS(ISOPROPYL)NAPHTHALENE (CAS: 38640-62-9)

**DNEL** Workers - Inhalation; Long term systemic effects: 30 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 4.3 mg/kg/day  
 REACH dossier information

**DMEL** Workers - Inhalation; Long term systemic effects: 300 mg/m<sup>3</sup>  
 REACH dossier information

**PNEC**  
 - Fresh water; 0.26 µg/L  
 - marine water; 0.026 µg/L  
 - STP; 0.15 mg/l  
 - Sediment (Freshwater); 0.94 mg/kg  
 - Sediment (Marinewater); 0.094 mg/l

## 8.2. Exposure controls

### Protective equipment



### Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

### Eye/face protection

The following protection should be worn: Tight-fitting safety glasses. Contact lenses should not be worn when working with this chemical.

### Hand protection

Wear protective gloves made of the following material: Nitrile rubber.



## S-RE1 part B

<b>Other skin and body protection</b>	Avoid contact with skin. Wear appropriate clothing to prevent repeated or prolonged skin contact.
<b>Hygiene measures</b>	Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Use engineering controls to reduce air contamination to permissible exposure level.
<b>Respiratory protection</b>	If ventilation is inadequate, suitable respiratory protection must be worn.
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Liquid.
<b>Colour</b>	Brownish.
<b>Odour</b>	Characteristic. Amine.
<b>Odour threshold</b>	Not determined.
<b>pH</b>	Not applicable.
<b>Melting point</b>	Not determined.
<b>Initial boiling point and range</b>	Not determined.
<b>Flash point</b>	>100°C Closed cup.
<b>Evaporation rate</b>	Not determined.
<b>Evaporation factor</b>	Not determined.
<b>Flammability (solid, gas)</b>	Not determined.
<b>Upper/lower flammability or explosive limits</b>	Not determined.
<b>Other flammability</b>	Not applicable.
<b>Vapour pressure</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Relative density</b>	1.75 - 1.85
<b>Bulk density</b>	Not available.
<b>Solubility(ies)</b>	Not determined.
<b>Partition coefficient</b>	Not determined.
<b>Auto-ignition temperature</b>	Not determined.
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	> 60 S ISO2431
<b>Explosive properties</b>	No information available.
<b>Explosive under the influence of a flame</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidising.

#### 9.2. Other information

## S-RE1 part B

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

**Reactivity** The following materials may react with the product: Acids. Epoxides. Oxidising agents. Peroxides.

#### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended.

#### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** The following materials may react with the product: Acids. Epoxides. Oxidising agents. Peroxides.

#### 10.4. Conditions to avoid

**Conditions to avoid** No specific requirements are anticipated under normal conditions of use.

#### 10.5. Incompatible materials

**Materials to avoid** Acids. Epoxides. Oxidising agents. Peroxides.

#### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Oxides of carbon. Oxides of nitrogen.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity - oral

**ATE oral (mg/kg)** 3,344.5

##### Acute toxicity - dermal

**ATE dermal (mg/kg)** 3,918.89

##### Skin corrosion/irritation

**Human skin model test** «328» «329» «330» «84»

##### Skin sensitisation

**Skin sensitisation** Sensitising.

##### Reproductive toxicity

**Reproductive toxicity - fertility** Suspected of damaging fertility.

##### Inhalation

Vapour may irritate respiratory system/lungs.

##### Ingestion

May cause stomach pain or vomiting.

##### Skin contact

May cause sensitisation by skin contact. May cause serious chemical burns to the skin.

##### Eye contact

Risk of serious damage to eyes. May cause chemical eye burns.

##### Acute and chronic health hazards

May cause sensitisation by skin contact. Causes severe burns.

##### Route of exposure

Skin and/or eye contact Inhalation

##### Target organs

No specific target organs known.

##### Medical symptoms

Symptoms following overexposure may include the following: Chemical burns.

#### Toxicological information on ingredients.

**S-RE1 part B****STYRENATED PHENOL****Acute toxicity - oral****Acute toxicity oral (LD<sub>50</sub> mg/kg)** 2,000.0**Species** Rat**Acute toxicity - dermal****Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 2,000.0**Species** Rat**2-PIPERAZIN-1-YLETHYLAMINE****Acute toxicity - oral****Acute toxicity oral (LD<sub>50</sub> mg/kg)** 1,470.0**Species** Rat**Acute toxicity - dermal****Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 866.0**Species** Rabbit**ATE dermal (mg/kg)** 300.0**1,3-CYCLOHEXANEBIS(METHYLAMINE)****Acute toxicity - oral****Acute toxicity oral (LD<sub>50</sub> mg/kg)** 700.0**Species** Rat**Acute toxicity - dermal****Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 1,700.0**Species** Rabbit**SALICYLIC ACID****Acute toxicity - oral****Acute toxicity oral (LD<sub>50</sub> mg/kg)** 891.0**Species** Rat**Acute toxicity - dermal****Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 2,000.0**Species** Rat

**S-RE1 part B****BIS(ISOPROPYL)NAPHTHALENE****Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub>  
mg/kg)** 4,130.0

**Species** Rat

**SECTION 12: Ecological information****12.1. Toxicity****Ecological information on ingredients.****STYRENATED PHENOL****Acute aquatic toxicity**

**Acute toxicity - fish** LC50, 96 hours: 14.8 mg/l,

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 1-10 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 3.14 mg/l, Scenedesmus subspicatus

**Chronic aquatic toxicity**

**NOEC** 0.01 < NOEC ≤ 0.1

**2-PIPERAZIN-1-YLETHYLAMINE****Acute aquatic toxicity**

**Acute toxicity - fish** LC50, 96 hours: 2190 mg/l, Pimephales promelas (Fat-head Minnow)  
LC50, 96 hours: 368 mg/l, Poecilia reticulata (Guppy)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 32 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 48 hours: 494 mg/l, Selenastrum capricornutum

**1,3-CYCLOHEXANEBIS(METHYLAMINE)****Acute aquatic toxicity**

**Acute toxicity - fish** LC50, > 96 hours: 100 mg/l, Leuciscus idus (Golden orfe)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 29 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, > 96 hours: 100 mg/l, Scenedesmus subspicatus

**Acute toxicity - terrestrial** EC<sub>50</sub>, > 14 days: 1000 mg/kg, Eisenia Fetida (Earthworm)

**SALICYLIC ACID****Acute aquatic toxicity**

**Acute toxicity - fish** LC50, 48 hours: 90 mg/l, Leuciscus idus (Golden orfe)

**Acute toxicity - microorganisms** EC<sub>50</sub>, > 3 hours: 3200 mg/l, Activated sludge

## S-RE1 part B

### 12.2. Persistence and degradability

**Persistence and degradability** There are no data on the degradability of this product.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not determined.

### 12.4. Mobility in soil

**Mobility** Mobile. The product is miscible with water and may spread in water systems.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

**Disposal methods** Dispose of waste via a licensed waste disposal contractor.

**Waste class** The waste code classification is to be carried out according to the European Waste Catalogue (EWC).

## SECTION 14: Transport information

### 14.1. UN number

**UN No. (ADR/RID)** 2735

**UN No. (IMDG)** 2735

**UN No. (ICAO)** 2735

**UN No. (ADN)** 2735

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,3-CYCLOHEXANEBIS(METHYLAMINE), 2-PIPERAZIN-1-YLETHYLAMINE)

**Proper shipping name (IMDG)** AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,3-CYCLOHEXANEBIS(METHYLAMINE), 2-PIPERAZIN-1-YLETHYLAMINE)

**Proper shipping name (ICAO)** AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,3-CYCLOHEXANEBIS(METHYLAMINE), 2-PIPERAZIN-1-YLETHYLAMINE)

**Proper shipping name (ADN)** AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,3-CYCLOHEXANEBIS(METHYLAMINE), 2-PIPERAZIN-1-YLETHYLAMINE)

### 14.3. Transport hazard class(es)

**ADR/RID class** 8

**ADR/RID classification code** C7

**ADR/RID label** 8

**IMDG class** 8

## S-RE1 part B

ICAO class/division 8

ADN class 8

### Transport labels



### 14.4. Packing group

ADR/RID packing group II

IMDG packing group II

ICAO packing group II

ADN packing group II

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

### 14.6. Special precautions for user

IMDG Code segregation group 18. Alkalis

EmS F-A, S-B

ADR transport category 2

Emergency Action Code 2X

Hazard Identification Number (ADR/RID) 80

Tunnel restriction code (E)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

and the IBC Code

## SECTION 15: Regulatory information

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

EU legislation (EU) No 2015/830

Guidance Workplace Exposure Limits EH40.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 26/10/2020

Version number 2.003

Supersedes date 17/06/2020

## S-RE1 part B

<b>SDS number</b>	21011
<b>Hazard statements in full</b>	<p>H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H311 Toxic in contact with skin. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H361 Suspected of damaging fertility or the unborn child. H361d Suspected of damaging the unborn child. H372 Causes damage to organs (Respiratory tract) through prolonged or repeated exposure. H373 May cause damage to organs through prolonged or repeated exposure if inhaled. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.</p>

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