Safety Use Instruction Sheet – ProRox & SeaRox products

Date of issue: 01/11/2017                                   Version: 1.1

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

1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Trade name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProRox GR 900 – 990</td>
<td>ProRox LF 900 – 990</td>
</tr>
<tr>
<td>ProRox LM 900 – 990</td>
<td>ProRox MA 500 – 590</td>
</tr>
<tr>
<td>ProRox MA 900 – 990</td>
<td>ProRox PS 600 – 690</td>
</tr>
<tr>
<td>ProRox PS 900 – 990</td>
<td>ProRox PSM 900 – 990</td>
</tr>
<tr>
<td>ProRox QM 900 – 990</td>
<td>ProRox SL 500 – 590</td>
</tr>
<tr>
<td>ProRox SL 600 – 690</td>
<td>ProRox SL 900 – 990</td>
</tr>
<tr>
<td>ProRox WM 600 – 690</td>
<td>SeaRox FB 6000 – 6090</td>
</tr>
<tr>
<td>ProRox WM 900 – 990</td>
<td>SeaRox FM 6000 – 6090</td>
</tr>
<tr>
<td>SeaRox LM 900 – 990</td>
<td>SeaRox MA 700 – 790</td>
</tr>
<tr>
<td>SeaRox MA 900 – 990</td>
<td>SeaRox SL 300 – 390</td>
</tr>
<tr>
<td>SeaRox SL 400 – 490</td>
<td>SeaRox SL 400 – 490</td>
</tr>
<tr>
<td>SeaRox SL 600 – 690</td>
<td>SeaRox SL 700 – 790</td>
</tr>
<tr>
<td>SeaRox SL 900 – 990</td>
<td>SeaRox SL 900 – 990</td>
</tr>
<tr>
<td>SeaRox WM 600 – 690</td>
<td>SeaRox WM 900 – 990</td>
</tr>
<tr>
<td>SeaRox WM 900 – 990</td>
<td>Aquaduct, Aquaduct CL</td>
</tr>
<tr>
<td>SeaRox QM 900 – 990</td>
<td></td>
</tr>
</tbody>
</table>

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

1.2.1. Relevant identified uses

Use of the substance/mixture: ProRox: Thermal insulation of industrial installations.
SeaRox: Thermal insulation in marine and offshore installations

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Rockwool B.V.
Rockwool Technical Insulation
Industrieweg 15
6045 JH Roermond
Netherlands
T: +31 475 35 3915
www.rockwool-rti.com

Producing factories
- Norway (Trondheim and Moss)
- Denmark (Doense and Vamdrup)
- Germany (Neuburg, Flechtingen and Gladbeck)
- Netherlands (Roermond)
- United Kingdom (Pencoed)
- Poland (Cigacice and Malkinia)
- Czech Republic (Bohumin)
- Hungary (Tapolca)
- France (Saint Eloy les Mines)
- Spain (Caparroso)

Or imported by any of these manufacturers from the ROCKWOOL site in Russia (Vyborg)

1.4. Emergency telephone number

Emergency number: +31 475 35 3915 (business hours GMT+1)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified

Adverse physicochemical, human health and environmental effects
No additional information available
2.2. Label elements

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

No labelling applicable

2.3. Other hazards not contributing to the classification

Other hazards which do not result in classification:

- Dust can be generated during cutting or fabrication of the product. When heated to approximately 200 °C for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate the eyes and respiratory system. Further information can be found in section 6.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man-made vitreous (silicate) fibres with random orientation with alkaline oxide and alkali earth oxide (Na2O+K2O+CaO+MgO+BaO) content greater than 18% by weight and fulfilling one of the note Q conditions</td>
<td>(EC-No.) 926-099-9 (EC Index-No.) 650-016-00-2 (REACH-no) 01-2119472313-44</td>
<td>95 - 100</td>
<td>Not classified</td>
</tr>
<tr>
<td>Urea, polymer with formaldehyde and phenol</td>
<td>(CAS-No.) 25104-55-6</td>
<td>2 - 5</td>
<td>Not classified</td>
</tr>
<tr>
<td>Residual oils (petroleum), solvent-dewaxed (contains less than 3% DMSO extract)</td>
<td>(CAS-No.) 64742-62-7 (EC-No.) 285-166-0 (EC Index-No.) 649-471-00-X</td>
<td>0.5</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general:

If exposure symptoms persist, seek medical attention.

First-aid measures after inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact:

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Rinse skin with water/shower.

First-aid measures after eye contact:

Immediately flush eyes thoroughly with water for at least 15 minutes. Call a physician.

First-aid measures after ingestion:

Rinse mouth immediately and drink plenty of water.

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

Symptoms/effects after eye contact:

May cause physical irritation upon direct contact.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray, carbon dioxide (CO2), dry chemical powder, foam.

Unsuitable extinguishing media:

None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard:

The product itself does not burn.

Explosion hazard:

Not explosive.

5.3. Advice for firefighters

Firefighting instructions:

Use self-contained breathing apparatus when in close proximity to fire. Wear proper protective equipment.

Protective equipment for firefighters:

Wear a self contained breathing apparatus. Wear recommended personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures:

Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.
### Safety Use Instruction Sheet – ProRox & SeaRox products

#### 6.1.1. For non-emergency personnel

**Protective equipment**: Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. Refer to chapter 8.

#### 6.1.2. For emergency responders

**Protective equipment**: In case of inadequate ventilation wear respiratory protection. Refer to chapter 8.

**Emergency procedures**: Stop leak if safe to do so. Evacuate and limit access.

#### 6.2. Environmental precautions

Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Refer to sections 8 and 13.

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

**Methods for cleaning up**: Spilled material should be removed immediately to avoid formation of dust from dried material. Sweep up or vacuum up the product.

#### 6.4. Reference to other sections

Refer to sections 8 and 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Unpack material at application site to avoid unnecessary handling of product. Keep work area clean. Collect all waste in suitable and labelled containers and dispose according to local legislation. Wet dust with water before sweeping. Dust must be exhausted directly at the point of origin.

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

**Storage conditions**: Store in original container. Store tightly closed in a dry, cool and well-ventilated place.

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

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

| Residual oils (petroleum), solvent-dewaxed (contains less than 3% DMSO extract) (64742-62-7) |
|-----------------------------------------------|-----------------------------------------------|
| Latvia                                        | OEL TWA (mg/m³)                               | 5 mg/m³                        |
| Poland                                        | NDS (mg/m³)                                   | 5 mg/m³                        |
| Slovakia                                      | NPHV (priemerná) (mg/m³)                      | 1 mg/m³                        |
| Slovakia                                      | NPHV (priemerná) (ppm)                        | 5 ppm                          |
| Slovakia                                      | OEL STEL (ppm)                                | 15 ppm                         |
| Slovakia                                      | NPHV (Hraničňa) (mg/m³)                       | 3 mg/m³                        |
| USA - ACGIH                                   | ACGIH TWA (mg/m³)                             | 5 mg/m³                        |

**Additional information**: Workplace exposure limit (WEL) must not be exceeded. (total respirable, 8-hour time weighted averages). The dust concentration of inhalable fibres will be under normal working conditions less than 0,1 per cm³.

#### 8.2. Exposure controls

**Appropriate engineering controls:**

Ensure adequate ventilation.

**Personal protective equipment:**

Gloves. Protective clothing. Safety glasses.

**Hand protection:**

Wear suitable gloves tested to EN 374.

**Eye protection:**

Tightly fitting safety goggles. DIN EN 166.

**Skin and body protection:**

Long sleeved protective clothing. Wear work clothes with long sleeves.
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. EN 149. (FFP1)
Further information by the manufacturer: all stone wool insulation products contain a small amount of organic matter which primarily consist of carbon, nitrogen and hydrogen. Depending on the product this can be up to 5% by weight. During the first heating of the insulation material to temperatures above approx. 200°C this organic matter is decomposed (broken down). During this process some smoke development and/or an irritating smell can be noticed. Incomplete combustion of organic matter does not affect the quality or declared performances of installed products.
The composition of smoke will depend on the actual circumstances at location and will be influenced by the actual temperature, the speed of heating, presence of oxygen etc. The development of smoke and/or irritating smell during the “running in” of the installation can typically last for a period from a few hours up to approximately 4 days. Especially in newly insulated power plants, where temperature is increased gradually until full running conditions are met, this period of time needs to be taken into account. Ventilate the area well and to keep distance to the heated equipment until no further development of smoke or strong irritating smell is noticed.
If an enclosed area (room) where the heating takes place needs to be entered during the “running in” period wear a full face mask with fresh air supply for personal protection.

Other information:
Handle in accordance with good industrial hygiene and safety procedures.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Article. Stone wool.</td>
</tr>
<tr>
<td>Colour</td>
<td>Grey, green, Yellow.</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>&gt; 1000 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>200 °C</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Chemically inert substance. Water: Insoluble in water</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>Not explosive.</td>
</tr>
</tbody>
</table>

9.2. Other information
No additional information available
SECTION 10: Stability and reactivity

10.1. Reactivity
Hazardous polymerisation does not occur.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None under normal conditions.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
Strong acids, bases.

10.6. Hazardous decomposition products
Carbon monoxide. Carbon dioxide (CO2). When heated to approximately 200 °C for the first time, release of binder components and binder decomposition products can occur which, in high concentrations, may irritate the eyes and respiratory system.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified
Additional information: No acute toxicity even at high doses.

Urea, polymer with formaldehyde and phenol (25104-55-6)
LD50 oral rat 7 g/kg

Residual oils (petroleum), solvent-dewaxed (contains less than 3% DMSO extract) (64742-62-7)
LD50 dermal rabbit > 2000 mg/kg

Skin corrosion/irritation: Not classified
Additional information: Dust from this product may cause eye irritation
Respiratory or skin sensitisation: Not classified
Additional information: May cause slight irritation to the skin
Inhalation of dust may cause irritation of the respiratory system.
Symptoms may include stinging, tearing, redness, swelling and blurred vision

Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive toxicity: Not classified
STOT-single exposure: Not classified
STOT-repeated exposure: Not classified
Aspiration hazard: Not classified

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: This product is not hazardous.

12.2. Persistence and degradability

ProRox and SeaRox
Persistence and degradability: Product is not easily biodegradable.

12.3. Bioaccumulative potential

ProRox and SeaRox
Bioaccumulative potential: No bioaccumulation.

12.4. Mobility in soil

ProRox and SeaRox
Ecology - soil: Not expected to adsorb on soil.

12.5. Results of PBT and vPvB assessment
No additional information available

12.6. Other adverse effects
Other adverse effects: No information available.
SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations: Comply with local regulations for disposal.
Additional information: Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.5. Environmental hazards</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

14.6. Special precautions for user

Special transport precautions: Not applicable.
- Overland transport: Not applicable
- Transport by sea: Not applicable
- Air transport: Not applicable
- Inland waterway transport: Not applicable
- Rail transport: Not applicable

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

IBC code: not applicable.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substance on the REACH candidate list

15.1.2. National regulations

Germany

VvVwS Annex reference: Water hazard class (WGK) nwg, no hazard to waters (Classification according to VvVwS, Annex 4)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen: Residual oils (petroleum), solvent-dewaxed (contains less than 3% DMSO extract) is listed
SZW-lijst van mutagene stoffen: Residual oils (petroleum), solvent-dewaxed (contains less than 3% DMSO extract) is listed
NIET-limitatie lijst van voor de voortplanting giftige stoffen – Borstvoeding: None of the components are listed
NIET-limitatie lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid: None of the components are listed
**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.
The substance is not hazardous.

**SECTION 16: Other information**

**Indication of changes:**
CAS number has been changed.

**Abbreviations and acronyms:**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Government Industrial Hygienists</td>
</tr>
<tr>
<td>ASTM</td>
<td>American Society for Testing and Materials</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service</td>
</tr>
<tr>
<td>CLP</td>
<td>Classification, Labelling and Packaging</td>
</tr>
<tr>
<td>CSR</td>
<td>Chemical Safety Report</td>
</tr>
<tr>
<td>DIN</td>
<td>Deutsches Institut für Normung eV (German Institute for Standardization)</td>
</tr>
<tr>
<td>EEC</td>
<td>European Economic Community</td>
</tr>
<tr>
<td>EC</td>
<td>European Community</td>
</tr>
<tr>
<td>GESTIS</td>
<td>Gefahrstoffdaten banken (Database on hazardous substances)</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonised System</td>
</tr>
<tr>
<td>GPPS</td>
<td>general purpose polystyrenes</td>
</tr>
<tr>
<td>HCS</td>
<td>Hazard Communication Standard</td>
</tr>
<tr>
<td>HMIS</td>
<td>Hazardous Materials Identification System</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>MSDS</td>
<td>Material Safety Data Sheet</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>Overland transport (ADR)</td>
<td></td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>UP</td>
<td>Unsaturated polyester</td>
</tr>
<tr>
<td>SDS</td>
<td>Safety Data Sheet</td>
</tr>
<tr>
<td>VCI</td>
<td>volatile corrosion inhibitor</td>
</tr>
</tbody>
</table>

**Other information:**

The CAS number under which the Note Q fibres fall is 65997-17-3. Under this number the fibres are registered in the chemical registry systems in most countries in the world. This CAS number however is very broad. The specific chemistry of the bio-soluble fibre has been laid down in the CAS number 287922-11-6 and 1010446-98-6 and can be tracked in the CAS Registry System only.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.