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

1.1. Product identifier
Product form : Mixture
Product name : Sentinel X100 Rapid-Dose 300ml
Vaporizer : Aerosol
Other means of identification : Sentinel X100 Rapid-Dose 400ml

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 : Corrosion and Scale Inhibitor for Heating and Cooling Systems

1.2.2. Uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet
Manufacturer
Sentinel Performance Solutions LTD
7650 Daresbury Park, Daresbury
Warrington, Cheshire, WA4 4BS
T +44 (0)1928 704 330 - F +44 (0)1928 562 070
info.uk@sentinelprotects.com

1.4. Emergency telephone number
Emergency number : +44 (0)1928 704 339 (24 hours, 7 days)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Aerosol, Category 3 H229

Adverse physicochemical, human health and environmental effects
Pressurised container: May burst if heated.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Signal word (CLP) : Warning
Hazard statements (CLP) : H229 - Pressurised container: May burst if heated
Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P251 - Do not pierce or burn, even after use
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

2.3. Other hazards
No additional information available

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>sodium nitrate</td>
<td>[CAS-No.] 7631-99-4</td>
<td>1 - 5</td>
<td>Ox. Sol. 3, H272 Eye Irrit. 2, H319</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact: Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Wash skin with plenty of water.

First-aid measures after eye contact: Rinse immediately with plenty of water, also under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse eyes with water as a precaution.

First-aid measures after ingestion: Do NOT induce vomiting. Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media


5.2. Special hazards arising from the substance or mixture

Explosion hazard: Pressurised container: May burst if heated.


5.3. Advice for firefighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Do not allow run-off from fire fighting to enter drains or water courses.

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures: Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Mechanically recover the product.

Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Pressurized container: Do not pierce or burn, even after use.

Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Store in original container. Keep container closed when not in use. Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122 °F. Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)
See Heading 1.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
No additional information available

8.2. Exposure controls
Appropriate engineering controls:
Ensure good ventilation of the work station.

Hand protection:
Protective gloves. EN 374. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer.

Eye protection:
Chemical goggles or safety glasses. EN 166

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls:
Avoid release to the environment.

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>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Aerosol</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless to yellow. amber.</td>
</tr>
<tr>
<td>Odour</td>
<td>Barely perceptible.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>6.5 @ 25°C</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>104 °C @ 760mm Hg</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</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>1.3</td>
</tr>
<tr>
<td>Solubility</td>
<td>Miscible with 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>Product is not explosive. Pressurised container: May burst if heated.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Non oxidizing</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and reactivity

10.1. Reactivity
Pressurised container: May burst if heated.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
Extremely high or low temperatures. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified
Skin corrosion/irritation : Not classified
pH: 6.5 @ 25°C
Serious eye damage/irritation : Not classified
pH: 6.5 @ 25°C
Respiratory or skin sensitisation : Not classified
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 : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Results of PBT and vPvB assessment
No additional information available
### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

<table>
<thead>
<tr>
<th>Waste treatment methods</th>
<th>Product/Packaging disposal recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dispose of contents/container in accordance with licensed collector’s sorting instructions.</td>
<td>Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.</td>
</tr>
</tbody>
</table>

### SECTION 14: Transport information

#### 14.1. UN number

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>1950</td>
<td>1950</td>
<td>1950</td>
<td>1950</td>
</tr>
</tbody>
</table>

#### 14.2. UN proper shipping name

- **AEROSOLS**
- Aerosols, non-flammable

#### 14.3. Transport document description

- **UN 1950 AEROSOLS, 2.2**
- **UN 1950 Aerosols, non-flammable, 2.2**

#### 14.4. Transport hazard class(es)

<table>
<thead>
<tr>
<th>Class</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>2.2</td>
</tr>
</tbody>
</table>

#### 14.5. Environmental hazards

<table>
<thead>
<tr>
<th>Hazard Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous for the environment</td>
<td>No</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>No</td>
</tr>
</tbody>
</table>

### 14.6. Special precautions for user

#### Overland transport

- **Classification code (ADR)**: 5A
- **Limited quantities (ADR)**: 1I
- **Excepted quantities (ADR)**: E0
- **Special packing provisions (ADR)**: PP87, RR6, L2
- **Mixed packing provisions (ADR)**: MP9
- **Transport category (ADR)**: 3
- **Tunnel restriction code (ADR)**: E

#### Transport by sea

- **Limited quantities (IMDG)**: SP277
- **Excepted quantities (IMDG)**: E0
- **Packing instructions (IMDG)**: P207, LP02
- **Stowage and handling (IMDG)**: SW1, SW22
- **Segregation (IMDG)**: SG69
- **MFAG-No**: 126

#### Air transport

- **PCA Excepted quantities (IATA)**: E0
- **PCA Limited quantities (IATA)**: Y203
- **PCA limited quantity max net quantity (IATA)**: 30kgG
- **PCA packing instructions (IATA)**: 203
- **PCA max net quantity (IATA)**: 75kg
- **CAO packing instructions (IATA)**: 203
- **CAO max net quantity (IATA)**: 150kg
**Sentinel X100 Rapid-Dose 300ml**

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SDS Nr: 12301-0010

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**Special provisions (IATA):** A98, A145, A167, A802

**ERG code (IATA):** 2L

**Inland waterway transport**

- **Classification code (ADN):** 5A
- **Limited quantities (ADN):** 1 L
- **Excepted quantities (ADN):** E0
- **Equipment required (ADN):** PP
- **Ventilation (ADN):** VE04
- **Number of blue cones/lights (ADN):** 0

**Rail transport**

- **Classification code (RID):** 5A
- **Limited quantities (RID):** 1 L
- **Excepted quantities (RID):** E0
- **Packing instructions (RID):** P207, LP02
- **Transport category (RID):** 3
- **Hazard identification number (RID):** 20

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

Not applicable

**SECTION 15: Regulatory information**

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

**15.1.1. EU-Regulations**

- Contains no REACH substances with Annex XVII restrictions
- Contains no substance on the REACH candidate list
- Contains no REACH Annex XIV substances

**15.1.2. National regulations**

No additional information available

**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out

**SECTION 16: Other information**

**Abbreviations and acronyms:**

- ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE Acute Toxicity Estimate
- CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
- DNEL Derived-No Effect Level
- EC50 Median effective concentration
- IARC International Agency for Research on Cancer
- IATA International Air Transport Association
- IMDG International Maritime Dangerous Goods
- LC50 Median lethal concentration
- LD50 Median lethal dose
- PBT Persistent Bioaccumulative Toxic
- PNEC Predicted No-Effect Concentration
- RID Regulations concerning the International Carriage of Dangerous Goods by Rail
- vPvB Very Persistent and Very Bioaccumulative


**Full text of H- and EUH-statements:**

- Acute Tox. 4 (Inhalation) Acute toxicity (inhal.), Category 4
- Acute Tox. 4 (Oral) Acute toxicity (oral), Category 4
<table>
<thead>
<tr>
<th>Description</th>
<th>Category/Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerosol 3</td>
<td>Aerosol, Category 3</td>
</tr>
<tr>
<td>Aquatic Chronic 2</td>
<td>Hazardous to the aquatic environment — Chronic Hazard, Category 2</td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation, Category 2</td>
</tr>
<tr>
<td>Ox. Sol. 3</td>
<td>Oxidising Solids, Category 3</td>
</tr>
<tr>
<td>H229</td>
<td>Pressurised container: May burst if heated</td>
</tr>
<tr>
<td>H272</td>
<td>May intensity fire; oxidiser</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

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.