



SAFETY DATA SHEET

Issuing Date 01-May-2017

Revision Date 01.06.17

Version 2.2

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name Sentinel X200
Pure substance/mixture Mixture.

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

Recommended Use Eliminates boiler noise and restores system efficiency.

Uses advised against None known.

1.3 Details of the supplier of the safety data sheet

Company Information SENTINEL PERFORMANCE SOLUTIONS LTD

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1.4 Emergency telephone

Emergency telephone +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

Not classified

Classification according to EU Directives 67/548/EEC

Not classified

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Signal Word

None

Hazard Statements

None

Precautionary statements

None

2.3 Other hazards

May cause skin and eye irritation. Ingestion may cause irritation of the gastrointestinal tract.

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)

This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

| Chemical Name | EC-No | CAS-No | w/w% | Classification (EU Reg. 1272/2008) | REACH Registration Number |
|---------------------|-----------|-----------|------|--|---------------------------------|
| Potassium hydroxide | 215-181-3 | 1310-58-3 | <1 | Acute Tox. 4 (H302) Skin Corr. 1A (H314)* | 01-2119487136-33- XXXX |

For the full text of H-Statements see Section 16

* Substance with Workplace Exposure Limit. See Section 8.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

| | |
|---------------------|--|
| Eye contact | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If symptoms develop obtain medical attention. |
| Skin contact | Remove contaminated clothing and shoes. Wash off immediately with soap and plenty of water. If symptoms develop obtain medical attention. |
| Ingestion | Do NOT induce vomiting. Wash out mouth with water and give 100 - 200 ml of water to drink. If symptoms develop obtain medical attention. |
| Inhalation | Remove patient from exposure, keep warm and at rest. If symptoms develop obtain medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

| | |
|----------------------|--|
| Main Symptoms | May cause skin and eye irritation. Ingestion may cause irritation of the gastrointestinal tract. |
|----------------------|--|

4.3 Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|------------------------|
| Notes to physician | Treat symptomatically. |
|---------------------------|------------------------|

Section 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

Water spray, Foam, Dry powder, Carbon dioxide (CO₂).

Extinguishing media which shall not be used for safety reasons

Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors: Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Phosphorus oxides.

5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus and full protective gear. Cool containers / tanks with water spray.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid contact with the skin and the eyes. Avoid inhalation of mists or vapor. Use personal protective equipment.

6.2 Environmental precautions

Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

6.4 Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure adequate ventilation. Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use.

Do not eat, drink or smoke during work. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in the original container/package in a cool well-ventilated place. Keep away from heat and sources of ignition. Keep away from direct sunlight. Protect from frost.

7.3 Specific end use(s)

Eliminates boiler noise and restores system efficiency.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

| Chemical Name | Potassium hydroxide 1310-58-3 |
|--------------------|---|
| The United Kingdom | STEL: 2 mg/m ³ |
| France | STEL: 2 mg/m ³ |
| Spain | STEL: 2 mg/m ³ |
| Portugal | Ceiling: 2 mg/m ³ |
| Finland | STEL: 2 mg/m ³ Ceiling: 2 mg/m ³ |
| Denmark | Ceiling: 2 mg/m ³ |
| Austria | TWA: 2 mg/m ³ |
| Switzerland | TWA: 2 mg/m ³ |
| Poland | STEL: 1 mg/m ³ TWA: 0.5 mg/m ³ |
| Norway | Ceiling: 2 mg/m ³ |
| Ireland | STEL: 2 mg/m ³ |

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

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8.2 Exposure controls

Appropriate engineering controls Provide adequate ventilation, including appropriate local extraction, to ensure that occupational exposure limits are not exceeded.

Personal protective equipment

| | |
|---------------------------------|--|
| Eye Protection | Goggles (EN 166) |
| Hand Protection | Protective gloves (EN 374) |
| Skin and body protection | Long sleeved clothing |
| Respiratory protection | Not normally required. In case of insufficient ventilation wear suitable respiratory equipment |

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls Avoid release to the environment

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|-----------------------|--------------------------|
| Physical state | Liquid |
| Appearance | Aqueous solution |
| Odor | Characteristic |
| Color | Yellow or Amber |
| Odor Threshold | No information available |

Property Values

| | |
|---|---------|
| pH | 10.2 |
| Melting/freezing point | -1.5 °C |
| Freezing Point | |
| Boiling point/boiling range | |
| Flash Point | |
| Evaporation rate | |
| Flammability (solid, gas) | |
| Flammability Limits in Air | |
| upper flammability limit | |
| lower flammability limit | |
| Vapor pressure | |
| Vapor density | |
| Relative density | 1.02 |
| Water solubility | |
| Solubility in other solvents | |
| Partition coefficient: n-octanol/water | |
| Auto-ignition temperature | |
| Decomposition temperature | |
| Viscosity, kinematic | |
| Viscosity, dynamic | |

Remarks • Methods

| |
|--------------------------|
| @ 25 °C |
| No information available |
| No information available |
| Not flammable |
| No information available |
| Not applicable |
| Not flammable |
| No information available |
| No information available |
| @ 25 °C |
| Miscible |
| No information available |
| No information available |
| Not flammable |
| No information available |
| No information available |
| No information available |

| | |
|-----------------------------|---------------|
| Explosive properties | Not explosive |
| Oxidizing properties | Not oxidizing |

9.2 Other information

No information available

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

Heat, flames and sparks. Do not freeze.

10.5 Incompatible materials

Oxidizing agents.

10.6 Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors: Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Phosphorous oxides.

Section 11: TOXICOLOGICAL INFORMATION

| | |
|---------------------|---|
| Inhalation | No known effect based on information supplied. |
| Eye contact | May cause eye irritation. |
| Skin contact | May cause skin irritation. |
| Ingestion | Ingestion may cause irritation of the gastrointestinal tract. |

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral: > 2000 mg/kg (rat)

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---------------------|----------------|-------------|-----------------|
| Potassium hydroxide | 365mg/kg (Rat) | - | - |

Skin corrosion/irritation Based on available data, classification criteria are not met.

Serious eye damage/irritation Based on available data, classification criteria are not met.

Respiratory or skin sensitisation Based on available data, classification criteria are not met.

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

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

Reproductive toxicity Based on available data, classification criteria are not met.

STOT - Single exposure Based on available data, classification criteria are not met.

STOT - Repeated exposure Based on available data, classification criteria are not met.

Aspiration hazard Based on available data, classification criteria are not met.

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Other information No information available.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity

WGK Classification 1

12.2 Persistence and degradability

Product is biodegradable.

12.3 Bioaccumulative potential

Does not bioaccumulate.

| Chemical Name | Bioconcentration factor (BCF) | log Pow |
|---------------------|-------------------------------|--------------|
| Potassium hydroxide | - | 0.65 0.83 |

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste from residues / unused products Disposal should be in accordance with local, state or national legislation.

Contaminated packaging Clean container with water. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14: TRANSPORT INFORMATION

Not classified as hazardous for transport.

| | ADR/RID/ADN | ICAO/IATA | IMDG / IMO |
|---|---|----------------|----------------|
| 14.1 UN Number | - | - | - |
| 14.2 UN proper shipping name | - | - | - |
| 14.3 Transport hazard class(es) | - | - | - |
| 14.4 Packing group | - | - | - |
| 14.5 Environmental Hazards | Not Classified | Not Classified | Not Classified |
| 14.6 Special precautions for user | No special precautions are needed in handling this material | | |
| 14.7 Transport in bulk according to 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

This safety data sheet complies with the requirements of Regulations (EC) No. 1907/2006 and No. 453/2010

WGK Classification 1

15.2 Chemical Safety Assessment

Chemical Safety Assessment has not been carried out.

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed
 H314 - Causes severe skin burns and eye damage

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Disclaimer

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