

SAFETY DATA SHEET**SENTINEL X100 (UK)**

1 IDENTIFICATION OF PREPARATION AND OF COMPANY**1.1 Identification of the substance or preparation**

Product : SENTINEL X100 UK

1.2 Use of substance/preparation

Corrosion inhibitor for central heating systems

1.3 Company/undertaking identification

Sentinel Performance Solutions Ltd.
The Heath Business & Technical Park
Runcorn
Cheshire WA7 4QX
United Kingdom
Tel: +44 (0) 1928 588 330
Fax: +44 (0) 1928 588 368

1.4 Emergency telephone

+44 (0)1928 588339

Official advisory body :

National Poisons Information Centre
Medical Toxicology Unit
Guy's and St. Thomas' NHS Trust
Avonley Road, London, SE14 5ER
Tel.: 0207 358 9167, Fax : 0207 771 5309

2 COMPOSITION / INFORMATION ON INGREDIENTS**Chemical description**

Aqueous solution of inorganic salts and organic compounds

Hazardous component(s)	EINECS/ELINCS #	CAS #	Conc.
Boric acid Xi, R36/37	233-139-2	10043-35-3	5 - 10 %
Benzotriazole Xn, R20/22-36-52/53	202-394-1	95-14-7	< 2.5 %
Sodium molybdate R52/53	231-551-7	7631-95-0	< 5 %
Sodium nitrate O, R8	231-554-3	7631-99-4	< 5 %

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Remarks

The classification of the above substance(s) is given, including the symbol letters and R phrases which are assigned in accordance with their physicochemical, health and environmental hazards. Please refer to section 16 (Relevant R phrases, used in sections 2 and 3 of this SDS), where the full text of each relevant R phrase is listed.

3 HAZARDS IDENTIFICATION

Important hazards

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| - Health/physical hazard | Not considered hazardous to health. |
| - Symptoms of exposure | Prolonged or repeated contact may cause transient irritation. |
| - Environmental hazards | The product is not classified as dangerous for the environment. |

4 FIRST AID MEASURES

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| Skin contact | Wash with water. |
| Eye contact | Flush immediately with plenty of running water. |
| Inhalation | Remove to fresh air. |
| Ingestion | Rinse mouth with water. |

5 FIRE-FIGHTING MEASURES

Extinguishing Media

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| - Suitable | Carbon dioxide, dry chemicals, foam, water spray (fog). |
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| Special protective equipment for fire fighters | Self contained breathing apparatus. (CEN : EN 137)
Protective clothing (CEN : EN 469)
Protective gloves (CEN : EN 659)
Helmet (CEN : EN 443) |
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| Special exposure hazards | Oxides of carbon and nitrogen evolved in fire. |
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6 ACCIDENTAL RELEASE MEASURES

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| Personal precautions | Protective clothing
Please refer also to section no. 8 'Exposure controls' for further information. |
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| Environmental precautions | Handle in accordance with good industrial hygiene and safety procedures.
Accidental release of large quantities into the aquatic environment may harm aquatic organisms. |
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Methods for Cleaning Up

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| - on soil | Absorb onto inert material and dispose of according to Controlled Waste Regulations. |
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7 HANDLING AND STORAGE

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| 7.1 Handling | Do not breathe vapours.
Avoid contact with skin and eyes. |
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| 7.2 Storage | Keep container tightly closed.
Store in cool, well ventilated area. |
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8 EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure limit values**

- WEL (EH40UK) Molybdenum compounds (as Mo) soluble : WEL 5 mg/m³ (8-hour TWA); 10 mg/m³ (15-minute)

Exposure controls

- Recommended engineering controls Ensure good ventilation.
- Respiratory protection In case of insufficient ventilation, use a breathing mask with filter type: P2
CEN : EN 140; EN 143; EN 149
- Hand protection Protective gloves (Plastic, impervious) (Protection against unintentional short-term contact)
CEN : EN 420
- Eye protection Safety goggles.
CEN : EN 166
- Skin protection Protective clothing if splashing or repeated contact with product is likely.
CEN : EN 340
- Environmental exposure controls Prevent from entering in public sewers or the immediate environment.

9 PHYSICAL AND CHEMICAL PROPERTIES**9.1 General information**

Appearance Liquid
Colour Colourless to yellow

9.2 Important health, safety and environmental info

pH (concentrated product) 6,4
Boiling point/range (°C) 100
Flash point (Pensky/Martens) (°C) None.
Density at 20°C (kg/m³) 1124
Solubility in water (% weight) Completely soluble
Viscosity at 20°C (mPas) 6
Relative vapour density (air=1) < 1
Evaporation rate (ether=1) < 1

9.3 Other information

Melting point, (°C) - 2
Pour point, (°C) 1

10 STABILITY AND REACTIVITY

- 10.1 Conditions to avoid** Protect from freezing.
- 10.2 Materials to avoid** None known.
- 10.3 Hazardous decomposition products** Oxides of carbon and nitrogen evolved in fire.

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11 TOXICOLOGICAL INFORMATION

Mammalian Test Data

- Oral LD50, rat (mg/kg) No information available.

Exposure hazard

- Inhalation Prolonged or repeated exposure may cause transient irritation.
- Skin contact Prolonged or repeated contact may cause transient irritation.
- Eye contact Prolonged or repeated contact may cause transient irritation.
- Ingestion May cause slight gastrointestinal irritation.

12 ECOLOGICAL INFORMATION

Ecotoxicity

- Fathead minnow (mg/l) LC50 : 3680
NOEL : 1680
96 hour Acute Toxicity
(Calculated data)
- Daphnia Magna (mg/l) LC50 : 4080
NOEL : 2100
48 hour Acute Toxicity
(Calculated data)

Persistence and degradability

- COD (mgO2/g) 150 (calculated data)
- BOD 5 (mgO2/g) 0 (calculated data)
- BOD 28 (mgO2/g) 1 (calculated data)
- Closed Bottle Test (% Degradation in 28 days) 2 (calculated data)
- TOC (mg C/g) 50 (calculated data)

Bioaccumulative potential

- Bioaccumulation Not bioaccumulating
(Refers to active component) Sodium molybdate

Summary

The product is not classified as dangerous for the environment.
The evaluation of environmental hazards is based on the concentration limits as set out in directive 1999/45/EC.

13 DISPOSAL CONSIDERATIONS

Disposal of product

According to Controlled Waste Regulations.

EWC (European Waste Code) recommendation : 16 03 06
16 Wastes not otherwise specified in the list.
16 03 Off-specification batches and unused products.
16 03 06 Organic wastes
Depending on the origin and state of the waste, other EWC numbers may be applicable too.

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Disposal of packaging According to Controlled Waste Regulations.

EWC (European Waste Code) recommendation : 15 01 02
15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified.
15 01 Packaging (including separately collected municipal packaging waste).
15 01 02 Plastic packaging.
Depending on the origin and state of the waste, other EWC numbers may be applicable too.

14 TRANSPORT INFORMATION

Substance id.no. (SIN) (UN No.) Not applicable.

Correct shipping name Not applicable.

Land transport
- RID/ADR classification Not classified under this legislation.

Maritime transport
- IMO-IMDG class Not classified under this legislation

Air transport
- ICAO/IATA classification Not classified under this legislation

15 REGULATORY INFORMATION

EEC labelling information

- Symbol(s) None.

- R Phrase(s) No Risk phrases assigned.

- S Phrase(s) S 2 :Keep out of the reach of children.
S 24/25 :Avoid contact with skin and eyes.
S 26 :In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 28 :After contact with skin, wash immediately with plenty of water.

- EINECS number All ingredients of this product are listed in EINECS or ELINCS, unless specifically exempted under the EEC Directive 67/548/EEC.

Other Safety Data Sheet available for professional user on request.

16 OTHER INFORMATION

Nature of revision Correction in Section: 2,9

Based on EC Directive 1999/45/EC
2001/58/EC
2001/118/EC

Relevant R phrases, used in sections 2 and 3 of this SDS R 8 : Contact with combustible material may cause fire.
R 36 : Irritating to eyes.
R 20/22 : Harmful by inhalation and if swallowed.
R 36/37 : Irritating to eyes and respiratory system.
R 52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.