



Product Code:

X400
Version: 1

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Date Prepared: August 2009

1. PRODUCT AND COMPANY INFORMATION

Identification of the substance/preparation **Sentinel X400**
Use of the substance/preparation Sludge Remover for hydronic heating systems

Company Identification Sentinel Performance Solutions Ltd.
Manufactured by Douglas Products and Packaging
Address and Telephone No. 1550 East Old 210 Highway
Liberty
Missouri, 64068

Telephone for further information: (816)-781-4250 (8am - 5pm)
Emergency Phone No. Chemtrec (800) 424-9300 (24/7)
Fax: (816)-781-1043

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance and odour:

Appearance	Yellow to brown liquid
Odour	Mild odour

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Statements of Hazard

None

Potential Health Effects

Primary routes of entry by skin or eye contact.

Eye contact - prolonged or repeated exposure may cause transient irritation. Skin contact - prolonged or repeated exposure may cause transient irritation. Inhalation - prolonged or repeated exposure may cause transient irritation. Ingestion of large amounts may cause slight gastrointestinal irritation.



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3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical description

Neutral solution of synthetic organic polymer.

Hazardous component(s)

Ingredient	CAS Number	EC Number	%	Symbol	Risk Phrases
No hazardous ingredients above 1%					

4. FIRST-AID MEASURES

Inhalation	Remove patient to fresh air, allow to rest and keep warm. Seek medical attention if symptoms develop.
Skin contact	Wash with plenty of water. Remove any contaminated clothing and launder before reuse. Seek medical attention if symptoms develop.
Eye contact	Flush immediately with plenty of water for at least 15 minutes, keeping eyelids open. Seek medical attention if symptoms develop.
Ingestion	DO NOT induce vomiting! Rinse mouth out with water, but do not give anything to drink. Seek medical attention if symptoms develop.
Personal precautions	Ensure that those giving first aid treatment do not get contaminated by product spills, etc. Wear suitable protective clothing, gloves and eye protection. See also Section 8.

5. FIRE-FIGHTING MEASURES

- Suitable	Water, foam, carbon dioxide, dry powder.
- Not to be used	None.
Special exposure hazards	Oxides of carbon, nitrogen and sulphur evolved in fire.
Special protective equipment for fire fighters	Protective clothing and self-contained breathing apparatus.
Flash point	Not flammable.



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6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear suitable protective clothing, gloves and eye protection. See Section 8 for details. Keep unnecessary personnel away.
Environmental precautions	Prevent from entering sewers or the immediate environment. In case of large spill, inform local authorities.
Methods for cleaning up	
- on soil	Absorb onto inert material such as earth, soil or specialist absorbent. Collect and place into sealed container for safe disposal (see Section 13).
- on water	None known.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Do not ingest or inhale vapours or spray.
Storage	Keep in original containers. Keep container tightly closed. Store in cool, well ventilated area. Protect from freezing and from high temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Recommended engineering controls	Ensure good ventilation. Arrange for eye wash possibility.
Control parameters:	None set.
Monitoring procedures	Not required.
Personal protection	
Always check applicability with your supplier of protective equipment.	
- Respiratory protection	In case of insufficient ventilation, wear full face or half face mask fitted with filter suitable for liquid particulates.
- Skin protection	Laboratory coat or overalls if splashing or repeated contact with product is likely.
- Eye protection	Chemical goggles or full face visor.
- Hand protection	Plastic, impervious gloves for protection against unintentional short-term contact. However, since glove performance is governed by many variables, it is strongly recommend that specialist advice on the selection and use of protective gloves is sought.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Yellow to brown liquid
Odour	Mild
pH (concentrated product)	6.6
Melting point (°C)	Approx 0 [32°F]
Boiling point/range (°C)	Approx 100 [212°F]
Flash point (Pensky Martens) (°C)	Not flammable
Explosive properties	None
Oxidising properties	None
Density at 20°C (kg/m ³)	1033
Solubility in water (% by weight)	Completely miscible
Viscosity at 20°C (mPas)	10
Relative vapour density (air=1)	< 1
Evaporation rate (ether=1)	< 1

Note: These are typical values and do not constitute a specification.

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of use.
Conditions to avoid	Protect from freezing.
Materials to avoid	None known.
Hazardous decomposition products	Oxides of carbon, nitrogen and sulphur evolved in fire.

11. TOXICOLOGICAL INFORMATION

Test data:	No data available on product.
Calculated from ingredient data:	
- Oral LD ₅₀ rat (mg/kg)	> 30,000
- Dermal LD ₅₀ , rabbit (mg/kg)	> 14,000
Exposure hazard:	
- Inhalation	Prolonged or repeated exposure may cause transient irritation.
- Skin contact	Prolonged or repeated exposure may cause transient irritation.
- Eye contact	Prolonged or repeated exposure may cause transient irritation.
- Ingestion	Likely symptoms are slight gastrointestinal irritation.

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Other data None available.

12. ECOLOGICAL INFORMATION

Aquatic toxicity: No data available on product.

Calculated data based on ingredients

- Daphnia Magna (mg/l) EC₅₀ 48 Hr: >7,000

Environmental effects: Not classified as hazardous to the environment under the EU classification system.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

14. TRANSPORTATION INFORMATION

Not classified as dangerous for transport.

15. REGULATORY INFORMATION

The label shows a CAUTION. Keep Out of Reach of Children. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water.

Names of the ingredients given on the label: None

R phrases: None.

S phrases: S2, Keep out of the reach of children; S24/25, Avoid contact with skin and eyes; S26, In case of contact with eyes, rinse immediately with plenty of water and seek medical advice; S28, After contact with skin, wash immediately with plenty of water.

Inventory Status

TSCA

All ingredients of this product are listed unless specifically exempted.

California Proposition 65

Does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

EU

All ingredients of this product are listed in EINECS or ELINCS, unless specifically exempted under EU Directive 67/548/EEC (as amended).

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Right to know classification: None are listed in CA, PA, MN, MA, MI, FL and NJ.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions, which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Hazardous Material Information (HMIS)		National Fire Protection Association (NFPA)	
Health	0	0	Health
Fire	0	0	Fire
Reactivity	0	0	Instability
Personal Protection	G		NA

Health	4 Deadly	3 Extreme Danger	2 Dangerous	1 Slight hazard	0 No hazard
Fire	4 < 73 °F	3 < 100 °F	2 < 200 °F	1 >200 °F	0 Will not burn
Reactivity/Instability	4 - May detonate	3 Explosive	2 Unstable	1 Normally stable	0 Stable

EU labelling information

- Symbol(s) None required

- R-Phrase(s) None assigned

- S-Phrase(s)

2	Keep out of the reach of children
24/25	Avoid contact with skin and eyes
26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
28	After contact with skin, wash immediately with plenty of water

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Supersedes Version Not applicable
Nature of revision First issue to OSHA standard.

R-phrases used in Section 3 None

Based on ANSI Z4000.1-2004 and EU Regulation 1907/2006