

Kamco Limited

MATERIAL SAFETY DATA SHEET

SYSTEMSAFE-DM

Revision date: 22/9/2011

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

1.1. Product identifier

Product name: SYSTEMSAFE-DM

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

Use if substance / mixture: Multi-metal corrosion and scale inhibitor for heating and cooling systems.

1.3. Details of the supplier of the safety data sheet

Company name: Kamco Ltd
Unit 9, Curo Park
Frogmore
St Albans
Herts
AL2 2DD

Tel: 01727 875020

Fax: 01727 875335

Email: info@kamco.co.uk

1.4. Emergency telephone number

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CHIP: Xn: R22; Sens.: R43

Classification under CLP: Eye Irrit.2: H319; Skin Irrit.2: H315; Skin Sens. 1: H317

Most important adverse effects: Harmful if swallowed. May cause sensitisation by skin contact.

2.2. Label elements

Label elements under CLP:

Hazard statements: H315: Causes skin irritation.
H317: May cause an allergic skin reaction
H319: Causes serious eye irritation

Signal words: WARNING

Hazard pictograms: GHS07: Exclamation mark



Precautionary statements: P264: Wash thoroughly after handling.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305/351/338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321: Specific treatment (see on this label).
P332+313: If skin irritation occurs get medical attention.
P337+313: If eye irritation persists get medical attention.
P362: Take off contaminated clothing and wash before reuse.
P363: Wash contaminated clothing before reuse.
P501: Dispose of to comply with local regulations.

Label elements under CHIP: Harmful

Hazard symbols:



Risk phrases: R22: Harmful if swallowed.
R43: May cause sensitisation by skin contact.

Safety phrases: S24: Avoid contact with skin.
S37: Wear suitable gloves.

2.3. Other hazards

PBT: This substance is not identified as a PBT substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

| SODIUM NITRITE | | | | |
|-----------------------|-----------|-----------------------|--|---------|
| EINECS | CAS | CHIP Classification | CLP Classification | Percent |
| 231-555-9 | 7632-00-0 | O: R8; T: R25; N: R50 | OX. Sol.3: H272; Acute Tox.3: H301; Aquatic Acute 1:H400 | 1-10% |

| SODIUM MOLYBDATE | | | | |
|-------------------------|------------|---------------------|--------------------|---------|
| EINECS | CAS | CHIP Classification | CLP Classification | Percent |
| 231-551-7 | 10102-40-6 | Xi: R36/37/38 | - | 1-10% |

| TRIETHANOLAMINE | | | | |
|------------------------|----------|---------------------|--------------------|---------|
| EINECS | CAS | CHIP Classification | CLP Classification | Percent |
| 203-049-8 | 102-71-6 | Xi: R36/38 | - | 1-10% |

| A MIXTURE OF: 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-O | | | | |
|---|------------|---|---|---------|
| EINECS | CAS | CHIP Classification | CLP Classification | Percent |
| - | 55965-84-9 | T: R23/24/25; C: R34; Sens: R43; N:R50/53 | Acute Tox.3: H331; Acute Tox.3: H311; Acute Tox.3: H301; Skin Corr.1B: H314; Skin Sens. 1: H317; Aquatic Acute 1: H400; Aquatic Chronic 1: H410 | <10% |

Section 4: First aid measures

4.1. Description of first aid measures

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor.
- Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.
- Ingestion:** Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately.
- Inhalation:** Remove casualty from exposure, ensuring one's own safety whilst doing so. Consult a doctor.

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

- Skin contact:** There may be irritation and redness at the site of contact.
- Eye contact:** There may be irritation and redness. The eyes may water profusely.
- Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.
- Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.
- Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: N/A

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixtures

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including and compatibilities

Storage conditions: Store in cool, well-ventilated area. Keep container tightly closed.

Suitable packaging: Polyethylene. Polypropylene. **Unsuitable packaging:** metals and alloys.

7.3. Specific end use(s)

Specific end uses(s): Corrosion inhibitor.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

A MIXTURE OF: 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO 247-500-7] AND 2-METHYL-2H-ISOTHIAZOL-3-O

| Workplace exposure limits: | | | Respirable dust: | |
|----------------------------|------------------------|---------------|------------------|---------------|
| | 8 hour TWA: | 15 min. STEL: | 8 hour TWA | 15 min. STEL: |
| UK | 0.05 mg/m ³ | - | - | - |

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Impermeable gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Pale yellow

Odour: Barely perceptible odour

Solubility in water: Miscible in all proportions

pH: 7

9.2. Other information

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Normally unreactive.

10.6. Hazardous decomposition products

Haz. Decomp. Products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

| Relevant effects for mixture: | | |
|-------------------------------|-------|-----------------------|
| Effect | Route | Basis |
| Acute toxicity (harmful) | ING | Hazardous: calculated |
| Sensitisation | DRM | Hazardous: calculated |

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

12.2. Persistence and degradability

Persistence and degradability: Biodegradable

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential

12.4. Mobility in soil

Mobility: Readily absorbed into soil

12.5. Results of PBT and vPvB assessment

PBT identification: This substance is not identified as a PBT substance

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Disposal of packaging: Return empty containers to the supplier for recycling. Damaged containers should be destroyed by cutting up or incineration. Do not use for potable water.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product is not classified for transport.

Section 15: Regulatory information

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

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information: This data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

Phrases used in s.2 and 3: H272: May intensify fire: oxidiser.
H301: Toxic if swallowed.
H311: Toxic in contact with skin.
H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H331: Toxic if inhaled.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
R8: Contact with combustible material may cause fire.
R22: Harmful if swallowed.
R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.
R25: Toxic if swallowed.
R34: Causes burns.
R36/37/38: Irritation to eyes and skin.
R43: May cause sensitisation by skin contact.
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R50: Very toxic to aquatic organisms.

Legal disclaimer: The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Kamco Limited shall not be held liable for any damage resulting from handling or from contact with the above product.