

# SAFETY DATA SHEET

## CalRad



This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with the material, as well as describing potential risks to the consumer and the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material. This Safety Data Sheet is prepared in accordance with formatting described in the REACH Regulation (EC) No 1907/2006, and described in CLP Regulation (EC) No 1272/2008.

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

#### 1.1 Product identifier

CalRad

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

Corrosion inhibitor for central heating systems

#### 1.3 Details of the supplier of the safety data sheet

Calmag (Yorkshire) Ltd  
Riverview Buildings  
Bradford Road, Riddlesden  
Keighley  
West Yorkshire  
BD20 5LN  
Tel: 01535 210320  
Fax: 01535 210321  
Email: [sales@calmagltd.com](mailto:sales@calmagltd.com)  
Web: [www.calmagltd.com](http://www.calmagltd.com)

#### 1.4 Emergency telephone number

Tel: 01535 210320 (9.00am - 5.00pm Mon-Fri except Public Holidays)

### SECTION 2: Hazards Identification

#### 2.1 Classification of the substance or mixture

Acute Toxicity (Oral) Category 4, H302 Harmful if swallowed

#### 2.2 Label elements



#### Warning

H302 Harmful if swallowed

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 Rinse mouth.

P101 If medical advice is needed, have product container or label at hand.

EUH208 Contains formaldehyde. May produce an allergic reaction.

#### 2.3 Other hazards

Contains formaldehyde which may produce an allergic reaction in sensitised individuals. Prolonged contact may cause skin irritation.

**SECTION 3: Composition****3.1 Substances**

Not applicable

**3.2 Mixtures**

An aqueous mixture of alkanolamine condensation product, polyether, biocide and inhibitor.

Name	CAS No	Concentration	Classification
Sodium nitrite	7632-00-0	<5%	Ox. Sol. 3 H272 Acute Tox. 3 H301, Eye Irrit. 2 H319, Aquatic Acute 1 H400
Sodium hydroxide	1310-73-2	<0.5%	Met. Corr. 1 H290, Skin Corr. 1A H314
Formaldehyde	50-00-0	0.1-0.2%	T; R23/24/25 C; R34 R40 R43 in accordance with DSD 67/548/EEC Carc. 1B H350, Muta 2 H341, Acute Tox. 2 H330, Acute Tox. 3 H311, Acute Tox. 3 H301, Skin Corr. 1B H314, Skin Sens. 1A H317

See section 16 for full description of statements.

**SECTION 4: First Aid Measures****4.1 Description of first aid measures**

EYE CONTACT: Wash thoroughly with water for several minutes, holding the eyelids apart. Seek immediate medical attention.

INHALATION: Remove from exposure. If breathing becomes difficult call a doctor.

SKIN CONTACT: Wash off with soap and water. Seek medical attention if irritation persists..

INGESTION: If swallowed, rinse mouth with water. Do NOT induce vomiting. Seek medical attention.

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

EYES: Redness, irritation, pain.

INHALATION: Cough, irritation.

SKIN: Redness, irritation, pain.

INGESTION: Nausea, pain, shortness of breath, dizziness. Sodium nitrite may cause methemoglobinaemia.

**4.3 Indication of any immediate medical attention and special treatments needed**

Symptomatic treatment as required.

**SECTION 5: Firefighting Measures****5.1 Extinguishing media**

Not flammable. Use extinguisher appropriate to surrounding conditions.

**5.2 Special hazards arising from the substance or mixture**

If involved in a fire, may release acrid fumes and nitrogen oxides.

**5.3 Advice for fire fighters**

Fire fighters should wear protective clothing and breathing apparatus as appropriate.

**SECTION 6: Accidental Release Measures****6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective clothing including gloves and eye protection. Open doors and windows to ensure good ventilation.

**6.2 Environmental precautions**

Prevent entry into sewers and watercourses.

**6.3 Methods and materials for containment and cleaning up**

Small spills (<1 litre) may be washed to drain with copious quantities of water.

Large spills (> 1 litre) should be covered with a suitable absorbent, e.g. sand, earth or spill granules and collected for disposal. Wash spill area thoroughly with water and detergent.

**6.4 References to other sections**

See section 8 and 13 for further advice.

**SECTION 7: Handling and Storage****7.1 Precautions for safe handling**

Other than the use of hand and eye protection, no special precautions are required.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep containers tightly closed. Store above 5°C.

**7.3 Specific end uses(s)**

No special precautions.

**SECTION 8. Exposure Controls/Personal Protection****8.1 Control parameters**

Substance	8 hour exposure limit	15 minute exposure limit	Source, Type
Sodium hydroxide	-	2 mg/m <sup>3</sup>	EH40
Formaldehyde	2 ppm 2.5 mg/m <sup>3</sup>	2 ppm 2.5 mg/m <sup>3</sup>	EH40

**8.2 Exposure controls**

None required during normal handling. Normal chemical handling procedures should be observed. Do not eat, drink or smoke when handling this product. Wash thoroughly after handling,

**Respiratory protection**

Not usually required. Use in well ventilated areas and avoid formation of spray or aerosols.

**Hand Protection**

Suitable chemical resistant gloves recommended for use with alkali materials. PVC or rubber may be suitable but glove manufacturer recommendations should always be checked. Change gloves in accordance with manufacturer recommendations. If gloves are damaged during use, remove immediately and wash hands before replacing with new gloves.

**Eye protection**

Goggles must be worn when handling this product.

**Skin protection**

Coveralls recommended. These should be changed after use or if contaminated. Wash before re-use.

**SECTION 9: Physical and Chemical Properties****9.1 Information on basic physical and chemical properties**

<b>Appearance:</b>	Brown liquid
<b>Odour:</b>	Typical odour
<b>Odour threshold:</b>	No data
<b>pH:</b>	Alkaline
<b>Melting point:</b>	Similar to water – approx. 0°C
<b>Boiling point:</b>	Similar to water – approx. 100°C
<b>Flashpoint:</b>	None
<b>Evaporation rate:</b>	Similar to water
<b>Flammability (solids/gases):</b>	Not applicable
<b>Upper/lower flammability limits:</b>	Not applicable
<b>Vapour pressure:</b>	Similar to water
<b>Vapour density</b>	Similar to water
<b>Relative density</b>	1.065
<b>Solubility in water:</b>	Completely soluble
<b>Solubility in other solvents:</b>	No data
<b>Partition coefficient (log Kow)</b>	No data
<b>Autoignition temperature</b>	Not combustible
<b>Decomposition temperature</b>	No data
<b>Viscosity</b>	Not viscous
<b>Explosive properties</b>	Not classified as explosive
<b>Oxidising properties</b>	Not classified as oxidising. May have weak oxidising properties.

**9.2 Other information**

None

**SECTION 10: Stability and Reactivity****10.1 Reactivity**

Not considered to be reactive.

**10.2 Chemical stability**

Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

May react vigorously with acids and reducing agents.

**10.4 Conditions to avoid**

Excessive heat.

**10.5 Incompatible materials**

Acids, reducing agents

**10.6 Hazardous decomposition products**

May release nitrogen oxides if heated to decomposition.

**SECTION 11: Toxicological Information****11.1 Information on toxicological effects**

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

**(a) acute toxicity** Calprotector contains sodium nitrite and may be harmful by ingestion.

**(b) skin corrosion/irritation** Calprotector is not classified as irritating to the skin based on consideration of its components, however prolonged contact may cause skin dryness and cracking.

- (c) serious eye damage/irritation** Calprotector may be mildly irritating to the eye based on consideration of its components.
- (d) respiratory/skin sensitisation** Contains low concentration of formaldehyde, below thresholds of concern, however may cause an allergic reaction in sensitised individuals.
- (e) germ cell mutagenicity** Contains no components known to be germ cell mutagens.
- (f) carcinogenicity** Contains formaldehyde which is classified as carcinogenic by inhalation. The concentration of formaldehyde in this product is very low and below the threshold for classification. Inhalation is also not expected to be a major route of exposure to this product.
- (g) reproductive toxicity** Contains no components known to be reproductive toxins.
- (h) STOT-single exposure** Contains no components known to cause specific target organ toxicity.
- (i) STOT-repeated exposure** Sodium nitrite may cause methemoglobinaemia, however at the levels present it is not expected to be a cause for concern.
- (j) aspiration hazard** The product is not expected to be an aspiration hazard.

## SECTION 12: Ecological Information

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

### 12.1 Toxicity

Not expected to be toxic in the environment. Significant releases may cause short term effects due to the pH of the product, however this will be rapidly lost upon dilution.

### 12.2 Persistence and degradability

The organic components are all biodegradable and are not expected to persist in the environment.

### 12.3 Bioaccumulative potential

None of the components are considered to be bioaccumulative.

### 12.4 Mobility in soil

All components are readily soluble in water.

### 12.5 Results of PBT and vPvB assessment

None of the components are known to be PBT or vPvB.

### 12.6 Other adverse effects

None known.

## SECTION 13: Disposal Considerations

### 13.1 Waste treatment methods

Recover and recycle product if possible. If recovery and recycling are not possible incinerate or dispose of in accordance with local regulations.

## SECTION 14: Transport Information

Not classified as hazardous for transport.

14.1	UN Number	Not applicable	
14.2	UN Proper shipping name	Not applicable	
14.3	Transport hazard class(es)	Not applicable	
14.4	Packing group	Not applicable	
14.5	Environmental hazards	Not applicable	
14.6	Special precautions for user	None	
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not transported in bulk	

**SECTION 15: Regulatory Information**

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

All components are listed as existing substances in Europe

**15.2 Chemical Safety Assessment**

A Chemical Safety Assessment has not been carried out for this product.

**SECTION 16: Other Information**

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**Statements used in Section 3**

Carc. 1B H350 May cause cancer.

Muta 2 H341 Suspected of causing genetic defects.

Acute Tox. 2 H330 Fatal if inhaled.

Acute Tox. 3 H311 Toxic in contact with skin.

Skin Corr. 1A/1B H314 Causes severe skin burns and eye damage.

Skin Sens. 1 H317 May cause allergic skin reaction.

Ox. Sol. 3 H272 May intensify fire; oxidiser.

Acute Tox. 3 H301 Toxic if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit.2 H319 Causes serious eye irritation.

Aquatic Acute 1 H400 Very toxic to aquatic life.

Met. Corr. 1 H290 may be corrosive to metals.

**Revision information:**

Updated to remove DS and DPD Classification information in sections 2 and 3.

Component ingredient concentrations and classifications updated in section3.