

# SAFETY DATA SHEET

## GOSS CHEM-I-WELD

Infosafe No.: LQBXO  
ISSUED Date : 22/11/2023  
ISSUED by: Innovative Mechatronics Group  
Pty Ltd

### Section 1 - Identification

**Product Identifier**

GOSS CHEM-I-WELD

**Company Name**

Innovative Mechatronics Group Pty Ltd (ABN 79 006 171 035)

**Address**

8 Becon Court, Hallam  
Vic 3803 Australia

**Telephone/Fax Number**

Tel: 03 8792 6999

Fax: 03 8795 7205

**Emergency Phone Number**

Poisons Information Centre 131 126

**E-mail Address**

www.im-group.com.au

**Recommended use of the chemical and restrictions on use**

Used in the automotive industry for repairs of cracked cylinder heads, water jackets and valve ports. After recommended engine preparation pour undiluted into the engine cooling system.

**Other Names**

Name
CHEMICAL WELDING COMPOUND
ALKALINE SALTS

### Section 2 - Hazard(s) Identification

**GHS classification of the substance/mixture**

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Acute toxicity: Category 4 - Oral

Skin corrosion/irritation: Category 2

Eye damage/irritation: Category 2A

Specific target organ toxicity (single exposure): Category 3 (Respiratory tract irritation)

**Signal Word (s)**

WARNING

**Hazard Statement (s)**

H302 Harmful if swallowed.

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

**Pictogram (s)**

Exclamation mark



**Precautionary Statement – Prevention**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary Statement – Response**

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P330 Rinse mouth.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 Call a POISON CENTER/doctor if you feel unwell.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.

**Precautionary Statement – Storage**

P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

**Precautionary Statement – Disposal**

P501 Dispose of contents/container to an approved waste disposal plant.

### Section 3 - Composition and Information on Ingredients

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**Ingredients**

Name	CAS	Proportion
Sodium silicate	1344-09-8	10-30 %
Ingredients determined not to be hazardous, including water.		Balance

### Section 4 - First Aid Measures

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**Inhalation**

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

**Ingestion**

Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

**Skin**

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.

## Eye

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. Seek immediate medical attention.

## First Aid Facilities

Eyewash, safety shower and normal washroom facilities.

## Advice to Doctor

Treat symptomatically.

## Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

## Section 5 - Firefighting Measures

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### Suitable Extinguishing Media

Use appropriate fire extinguisher for surrounding environment.

### Hazards from Combustion Products

Non combustible material. However, fire or heat may produce irritating, toxic and/or corrosive fumes including sodium oxides.

### Specific hazards arising from the chemical

This product is non-combustible. However, following evaporation of aqueous component under fire conditions, the non-aqueous component may decompose and/or burn.

Contact with hot or molten aluminium, lead, tin, zinc and their alloys may liberate highly flammable hydrogen gas.

### Decomposition Temperature

Not available

### Precautions in connection with Fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location. Keep containers cool with water spray to prevent rupture of container.

## Section 6 - Accidental Release Measures

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### Emergency Procedures

Wear appropriate personal protective equipment and clothing to prevent exposure. Increase ventilation. If possible contain the spill. Place inert absorbent material onto spillage. Collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations. Spillage can be slippery. As a water based product, if spilt on electrical equipment the product will cause short-circuits.

## Section 7 - Handling and Storage

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### Precautions for Safe Handling

Avoid inhalation of vapours and mists, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of mists or vapours in the work atmosphere. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

### Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area, out of direct sunlight. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations. Protect from freezing.

## Section 8 - Exposure Controls and Personal Protection

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### Occupational exposure limit values

No exposure standards have been established for the mixture. However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.

### Biological Monitoring

No biological limits allocated.

### Control Banding

Not available

### Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn.

### Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

### Eye and Face Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial Applications.

### Hand Protection

Wear gloves of impervious material such as PVC or rubber. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

### Thermal Hazards

No further relevant information available.

### Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

## Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Liquid	Appearance	Thin, muddy brown liquid
Colour	Muddy brown	Odour	Faint characteristic odour
Melting Point	Not applicable	Boiling Point	Not available
Decomposition Temperature	Not available	Solubility in Water	Completely soluble
Specific Gravity	1.4 ( approximate)	pH	12-13
Vapour Pressure	Not available	Relative Vapour Density (Air=1)	Not available
Evaporation Rate	Not available	Odour Threshold	Not available
Viscosity	Not available	Volatile Component	Not available
Partition Coefficient: n-octanol/water (log value)	Not available	Flash Point	Not available
Flammability	Non-combustible; Material does not burn	Auto-Ignition Temperature	Not available
Flammable Limits - Lower	Not available	Flammable Limits - Upper	Not available
Explosion Properties	Not available	Oxidising Properties	Not available
Particle Characteristics	Not applicable		

## Section 10 - Stability and Reactivity

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### Reactivity

Reacts with incompatible materials.

### Chemical Stability

Stable under normal conditions of storage and handling.

### Possibility of hazardous reactions

This product will react with aluminium, lead, tin, zinc and their alloys to produce hydrogen, which can produce an explosive mixture with air. Will generate a large amount of heat when in contact with strong acids.

### Conditions to Avoid

Extremes of temperature.

### Incompatible Materials

Strong acids, aluminium, lead, tin, zinc and their alloys.

### Hazardous Decomposition Products

Thermal decomposition may produce irritating, toxic and/or corrosive fumes including sodium oxides.

### Hazardous Polymerization

Will not occur.

## Section 11 - Toxicological Information

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### Toxicology Information

Available toxicity data is given below.

#### Acute Toxicity - Oral

LD50 (rat): 1100 – 1960 mg/kg (sodium silicate solution)

#### Acute Toxicity - Dermal

LD50 (rabbit): > 4640 mg/kg. (sodium silicate solution)

#### Ingestion

Harmful if swallowed. Ingestion of this product may cause irritation to the mouth, throat, oesophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

#### Inhalation

May cause respiratory irritation. Inhalation of product vapours can cause irritation of the nose, throat and respiratory system.

#### Skin

Causes skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Sodium silicate solution: Large or extended exposure may lead to a general depression of activity of the thorax and lungs, somnolence and dyspnea. It is absorbed through the skin.

#### Eye

Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness. Corneal damage may occur.

Draize test: Severe (10 – 50 mg/24 hrs).

#### Respiratory Sensitisation

Not expected to be a respiratory sensitiser.

#### Skin Sensitisation

Not expected to be a skin sensitiser.

#### Germ Cell Mutagenicity

Not considered to be a mutagenic hazard.

#### Carcinogenicity

Not considered to be a carcinogenic hazard.

#### Reproductive Toxicity

Not considered to be toxic to reproduction.

**STOT - Single Exposure**

May cause respiratory irritation.

**STOT - Repeated Exposure**

Not expected to cause toxicity to a specific target organ.

**Aspiration Hazard**

Not expected to be an aspiration hazard.

## Section 12 - Ecological Information

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**Ecotoxicity**

No ecological data are available for this material. Data for sodium silicate is given below. Sodium silicate has not been classified as ecotoxic according to the criteria of the EEC Council Directive 67/548/CEE. However if the pH of the discharge into the environment is above acceptable limits aquatic toxicity may result.

**Persistence and degradability**

Being an inorganic, substance biodegradability tests are not applicable. However, sodium silicate rapidly depolymerises into silica compounds found naturally in the environment.

**Mobility**

Not available

**Bioaccumulative Potential**

Not available

**Other Adverse Effects**

Not available

**Environmental Protection**

Prevent this material entering waterways, drains and sewers.

**Acute Toxicity - Fish**

Sodium silicate

LD50: 300 – 500 mg/L/> 96 hrs

**Acute Toxicity - Other Organisms**

Sodium silicate

EC50 (crustaceans): 247 mg/L/100 hrs

**Hazardous to the Ozone Layer**

This product is not expected to deplete the ozone layer.

## Section 13 - Disposal Considerations

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**Disposal Considerations**

The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations. To minimise personal exposure to the chemical, refer to Section 8—Exposure controls and personal protection.

Small quantities may be diluted with large amounts of water to reduce the pH. Large amounts must be neutralised with dilute or weak acid.

## Section 14 - Transport Information

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**Transport Information**

Road and Rail Transport (ADG Code):

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) (7th edition).

Marine Transport (IMO/IMDG):

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport (ICAO/IATA):

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations

for transport by air.

**ADG U.N. Number**

None Allocated

**ADG Proper Shipping Name**

None Allocated

**ADG Transport Hazard Class**

None Allocated

**Special Precautions for User**

Not available

**IMDG Marine pollutant**

No

**Transport in Bulk**

Not available

## Section 15 - Regulatory Information

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**Regulatory Information**

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

**Poisons Schedule**

S5

**Montreal Protocol**

Not listed

**Stockholm Convention**

Not listed

**Rotterdam Convention**

Not listed

**International Convention for the Prevention of Pollution from Ships (MARPOL)**

Not available

**Agricultural and Veterinary Chemicals Act 1994**

Not available

**Basel Convention**

Not available

## Section 16 - Any Other Relevant Information

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**Date of Preparation**

SDS Created: November 2023

**Version Number**

1.0

**Literature References**

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Code of Practice for Supply Diversion into Illicit Drug Manufacture.

National Code of Practice for Chemicals of Security Concern.

Agricultural Compounds and Veterinary Chemicals Act.

International Agency for Research on Cancer (IARC) Monographs.

Montreal Protocol on Substances that Deplete the Ozone Layer.

Stockholm Convention on Persistent Organic Pollutants (POPs).

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.

International Air Transport Association (IATA) Dangerous Goods Regulations.

International Maritime Dangerous Goods (IMDG) Code.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition).

Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

## END OF SDS

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