

# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

SUPPLIER	IM Group 8 Becon Crt, Hallam Vic 3803 Telephone: (03) 8792 6999 Monday to Friday (holidays excepted)
PRODUCT	<b>Product Name:</b> GOSS CHEM-I-WELD <b>Other Names:</b> Chemical welding compound, alkaline salts <b>Manufacturer's Code:</b> Part No. 13A
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.

## GOSS CHEM-I-WELD



## 2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION	<b>NOHSC Classification:</b> Hazardous Substance. <b>ADG Classification:</b> Non-Dangerous Goods. <b>SUSDP Classification:</b> Schedule 5 poison.
RISK PHRASES	R22 Harmful if swallowed. R36/38 Irritating to eyes and skin.
SAFETY PHRASES	S2 Keep out of reach of children. S20 When using, do not eat or drink.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURE	CHEMICAL ENTITY	CAS No.	PROPORTION
	Water	7732-18-5	> 60%
	Sodium silicate	1344-09-8	10 – 30%
	Other ingredients determined not to be hazardous	Not applicable	< 10%

## 4. FIRST AID MEASURES

FIRST AID	<p><b>Swallowed:</b> If swallowed do NOT induce vomiting. Rinse mouth thoroughly with water. Give one glass of water or milk. Seek medical advice immediately.</p> <p><b>Eyes:</b> If in eyes, irrigate immediately with copious amounts of water for 15 minutes with eyelids held open. Seek medical advice immediately.</p> <p><b>Skin:</b> Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and footwear. Decontaminate footwear and wash clothing before reuse. Seek medical advice if skin irritation develops</p> <p><b>Inhaled:</b> Remove victim to fresh air. Seek medical advice if adverse symptoms, such as coughing, breathing difficulties or burning sensations in the respiratory tract develop.</p>
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## 4. FIRST AID MEASURES- CONTINUED

	<b>First aid facilities:</b> Have eyewashes and safety showers available where contact can occur.
ADVICE TO DOCTOR	Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA	Not applicable. This product will not burn
HAZARDOUS COMBUSTION PRODUCTS	Contact with hot or molten aluminium, lead, tin, zinc and their alloys may liberate highly flammable hydrogen gas.
PRECAUTIONS FOR FIRE FIGHTERS	In a general fire keep containers cool with water spray to prevent rupture of container. In a general fire wear full protective equipment and breathing apparatus. Move containers from fire area if it can be done without risk.

## 6. ACCIDENTAL RELEASE MEASURES

### EMERGENCY PROCEDURES

This product is an alkaline liquid. Isolate hazard area and deny entry. Stop leak if it can be done without personal risk.

### CLEAN UP PROCEDURES

<b>Small spills:</b>	Wear chemical goggle or face shield and rubber or PVC gloves and wipe up spill with mop or rags. Place contaminated medium under water.
<b>Large spills:</b>	Wearing full personal protective equipment, contain spill with sand, earth, sawdust or Vermiculite. Prevent run-off into drains or waterways. Neutralise with a weak acid such as vinegar or citric acid. Bail or pump any free liquid into sealable plastic containers. Seal containers and label them in accordance with the Hazardous Substances Labelling Code. Hose down residue with plenty of water.

## 7. HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING	Practice sound industrial hygiene. Wear rubber gloves, chemical goggles and clothing that will minimise skin contact. Wash hands before work breaks. Remove contaminated clothing and protective equipment before entering eating areas. Keep away from foodstuffs.
STORAGE	Store in a cool dry place and out of direct sunlight. Store away from strong acids, aluminium, lead, tin, zinc and their alloys as well as foodstuffs.

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## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

EXPOSURE STANDARDS	An exposure limit for this product has not been set. However NOHSC has set a blanket limit dusts or mists whose limits have not been established, and hence:  <b>Exposure standard</b> [NOHSC:1003(1995)]: Product mist	TWA 10mg/m <sup>3</sup>
BIOLOGICAL LIMIT VALUES	Not applicable.	
ENGINEERING CONTROLS	Use only in well ventilated areas. Maintain air concentrations below exposure standards.	
PERSONAL PROTECTION EQUIPMENT	Under condition of ordinary use, wear safety goggles, PVC or rubber gloves (any type) long sleeved overalls and boots. In case of a large spill or when working in confined areas, use full face respirator fitted with suitable inorganic vapour canister for selection guidance see AS 17150), ( long sleeved overalls, long sleeved PVC or rubber gloves (any type) and gumboots.	

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### PHYSICAL DESCRIPTION & PROPERTIES

**Appearance:** Thin, muddy brown liquid  
**Odour:** Faint characteristic odour  
**pH:** 12 - 13  
**Vapour Pressure:** Not established  
**Vapour Density:** Not established  
**Boiling Point:** Not established  
**Freezing/Melting Point:** Not established  
**Solubility in Water:** Completely soluble  
**Specific Gravity:** ca. 1.4  
**Flashpoint:** Not flammable

### OTHER PROPERTIES

May produce highly flammable hydrogen gas when in contact with aluminium, lead, tin, zinc and their alloys.

## 10. STABILITY AND REACTIVITY

### CHEMICAL STABILITY

This material is stable under normal ambient and anticipated storage and handling conditions.

### CONDITIONS TO AVOID

Avoid excessive temperatures and contact with incompatible materials.

### INCOMPATIBLE MATERIALS

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

### HAZARDOUS DECOMPOSITION PRODUCTS

This product will react with aluminium, lead, tin, zinc and their alloys to produce hydrogen, which can produce an explosive mixture with air.

### HAZARDOUS REACTIONS

Will generate a large amount of heat when in contact with strong acids. Hazardous polymerisation will not occur.

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## 11. TOXICOLOGICAL INFORMATION

This mixture has not been tested for its health effects as a whole. The mixture has been classified as hazardous solely on the basis of the presence of sodium silicate. The toxicology data and health effects given below are those of a sodium silicate solution.

### ACUTE HEALTH EFFECTS

**Swallowed:** This product is harmful by ingestion. The high pH is also likely to cause chemical burns to the gastrointestinal tract. May cause vomiting and diarrhoea. LD50 (rat) 1100 – 1960 mg/kg.

**Eyes:** Highly irritant to eyes. May cause reddening of the eyes and lachrymation. Corneal damage may occur. Draize test: Severe (10 – 50 mg/24 hrs)

**Skin:** Irritant. Is absorbed through the skin. LD50 (rabbit) > 4640 mg/kg. Large or extended exposure may lead to a general depression of activity of the thorax and lungs, somnolence and dyspnea.

**Inhaled:** An unlikely route of entry if used as directed. Mists are irritating to mucous Membranes and may cause upper airways irritation. Inhalation of high concentrations may lead to chemical pneumonia.

### CHRONIC HEALTH EFFECTS

No data available.

## 12. ECOLOGICAL INFORMATION

### ECOTOXICITY

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. An LD50 for fish exposed to concentrations of 300 – 500 mg/L for > 96 hrs and an EC50 for crustaceans exposed to 247 mg/L for 100 hrs has been reported.

### 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

No data available

## 13. DISPOSAL CONSIDERATIONS

This product is a hazardous waste and may only be disposed of in accordance with applicable State and local regulations. These regulations vary from jurisdiction to jurisdiction and hence the user is advised to seek advice from the local authority before considering disposal. The disposal information given below is a general guide and does not replace the requirement of the local regulations.

### DISPOSAL

Small quantities may be diluted with large amounts of water to reduce the pH and then disposed of as non-hazardous waste. Empty containers should be treated in a similar manner. Large amounts must be neutralised with dilute or weak acid and may then be considered for landfill.

### SPECIAL PRECAUTIONS

Ensure that the waste material has been uniformly neutralised before dumping into a landfill.

When large amounts of this product need to be disposed of the services of a registered, professional waste disposal organisation is highly recommended.

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## 14. TRANSPORT INFORMATION

This product has not been classified as Dangerous Goods. This product does not need to be transported in accordance with the ADG Code requirements.

**UN Number:** None allocated.

**ADG Class:** None allocated.

**ADG Packaging Group:** None allocated.

**IMG/IMO Code:** Unrestricted

**Proper Shipping Name:** None allocated.

**ADG Subsidiary Risk:** None allocated.

**Hazchem Code:** None allocated.

**ICAO/IATA Code:** Unrestricted

## 15. REGULATORY INFORMATION

AICS	All ingredients are listed in AICS
SUSDP	This product is Schedule 5 poison. A licence to make, store or sell a Schedule 5 poison is required.

## 16. OTHER INFORMATION

MSDS	Issue Number: 03 Date of Issue: JAN 2020 Replaces Issue: May 2011 Changes made to the previous issue: None
ACRONYMS	ADG Code: Australian Code for the Transport of Dangerous Goods by Road and Rail AIDC: Australian Inventory of Chemical Substances CAS Number: Chemical Abstracts Service Registry Number DG: Dangerous Goods Hazchem Code: An emergency action code of numbers and letters, which gives information to emergency services IARC: International Agency for Research on Cancer IATA: International Air Transport Association ICAO: International Civil Aviation Organisation IMDG: International Maritime Dangerous Goods Code IMO: International Maritime Organisation N.O.S.: Not otherwise specified NOHSC: National Health and Safety Commission R-Phrases: Risk Phrases S-Phrases: Safety Phrases SUDP: Standard for the Uniform Scheduling of Drugs and Poisons UN Number: United Nations Number

The health and safety information contained in this MSDS is believed to be true and correct. However because IM Group has no control over the method of use of this product, all statements or suggestions are made without warranty, expressed or implied, regarding the reliability of the information, or the hazards resulting from the use of the material. Every user should consider the information given in this MSDS in the context of how this product will be used in the user's workplace, including the effects of other products on the premises.