



## SAFETY DATA SHEET

Product Name **SODIUM SILICATE LIQUID**

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier Name** COOGEE CHEMICALS  
**Address** Cnr of Patterson and Kwinana Beach Roads, Kwinana, WA, AUSTRALIA, 6167  
**Telephone** (08) 9439 8200  
**Fax** (08) 9439 8300  
**Emergency** 1800 800 655  
**Email** businessrelations@coogee.com.au  
**Web Site** <http://www.coogee.com.au>  
**Synonym(s)** SILICATE OF SODA • SODIUM SILICATE (LIQUID) • WATER GLASS  
**Use(s)** CLEANING AGENT  
**SDS Date** 13 Jul 2009

### 2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

<b>UN No.</b>	None Allocated	<b>DG Class</b>	None Allocated	<b>Subsidiary Risk(s)</b>	None Allocated
<b>Packing Group</b>	None Allocated	<b>Hazchem Code</b>	None Allocated	<b>EPG</b>	None Allocated

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
WATER	H <sub>2</sub> O	7732-18-5	>60%
SODIUM SILICATE	Na <sub>4</sub> SiO <sub>4</sub>	1344-09-8	20-40%

### 4. FIRST AID MEASURES

**Eye** If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

**Inhalation** If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

**Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre or a doctor.

**Ingestion** For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

**Advice to Doctor** Treat symptomatically

**First Aid Facilities** Eye wash facilities and safety shower should be available.

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## 5. FIRE FIGHTING MEASURES

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<b>Flammability</b>	Non flammable. May evolve toxic gases if strongly heated.
<b>Fire and Explosion</b>	No fire or explosion hazard exists.
<b>Extinguishing</b>	Prevent contamination of drains or waterways.
<b>Hazchem Code</b>	None Allocated

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Spillage</b>	Use personal protective equipment. Contain spillage, then cover / absorb spill with non-combustible absorbant material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. CAUTION: Spill site may be slippery.
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## 7. STORAGE AND HANDLING

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<b>Storage</b>	Store in a cool, dry, well ventilated area, removed from oxidising agents, acids, active metals, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Large storage areas should be bunded and have appropriate ventilation systems. Mild steel may be used for storage vessels (eg. tanks, drums, pipework, valves). Concrete storage tanks may be used for bulk quantities, but must be designed to have the appropriate strength and prevent water seepage.
<b>Handling</b>	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

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## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

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<b>Exposure Stds</b>	No exposure standard(s) allocated.
<b>Biological Limits</b>	No biological limit allocated.
<b>Engineering Controls</b>	Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.
<b>PPE</b>	Wear splash-proof goggles, rubber or PVC gloves and coveralls. When using large quantities or where heavy contamination is likely, wear: a PVC apron and rubber boots.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	VISCOUS CLEAR TO LIGHT YELLOW LIQUID	<b>Solubility (Water)</b>	SOLUBLE
<b>Odour</b>	ODOURLESS	<b>Specific Gravity</b>	1.4 - 1.56
<b>pH</b>	12.8 (1% Solution) (Approximately)	<b>% Volatiles</b>	> 60 % (Water)
<b>Vapour Pressure</b>	24 mm Hg @ 20°C	<b>Flammability</b>	NON FLAMMABLE
<b>Vapour Density</b>	NOT AVAILABLE	<b>Flash Point</b>	NOT RELEVANT
<b>Boiling Point</b>	100°C (Approximately)	<b>Upper Explosion Limit</b>	NOT RELEVANT
<b>Melting Point</b>	< 0°C	<b>Lower Explosion Limit</b>	NOT RELEVANT
<b>Evaporation Rate</b>	AS FOR WATER		

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## 10. STABILITY AND REACTIVITY

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<b>Chemical Stability</b>	Stable under recommended conditions of storage.
<b>Conditions to Avoid</b>	Avoid heat, sparks, open flames and other ignition sources.
<b>Material to Avoid</b>	Incompatible with oxidising agents (eg. hypochlorites), acids (eg. nitric acid) and metals. May absorb carbon dioxide on exposure to air, precipitating insoluble silicates. Sodium silicate may react with metals such as aluminium, copper, brass, bronze, tin, lead or zinc with the generation of flammable hydrogen gas. Sodium silicate undergoes a violent reaction upon contact with fluorine.
<b>Decomposition</b>	May evolve toxic gases if heated to decomposition.
<b>Hazardous Reactions</b>	Polymerization is not expected to occur.

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## 11. TOXICOLOGICAL INFORMATION

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<b>Health Hazard Summary</b>	Corrosive. This product has the potential to cause adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Over exposure may result in corrosive tissue damage.
<b>Eye</b>	Corrosive - irritant. Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible permanent damage.
<b>Inhalation</b>	Slightly corrosive - irritant. Over exposure may result in irritation of the nose and throat, coughing, nausea and inflammation with breathing difficulties. Due to the low vapour pressure, an inhalation hazard is not anticipated with normal use.
<b>Skin</b>	Corrosive - severe irritant. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns.
<b>Ingestion</b>	Corrosive. Ingestion may result in ulceration and burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea.
<b>Toxicity Data</b>	SODIUM SILICATE (1344-09-8) LD50 (Ingestion): 1100 mg/kg (mouse) LDLo (Ingestion): 250 mg/kg (dog)

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## 12. ECOLOGICAL INFORMATION

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<b>Environment</b>	Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.
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## 13. DISPOSAL CONSIDERATIONS

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<b>Waste Disposal</b>	Neutralise with dilute acid (eg. 3 mol/L hydrochloric acid) or similar. For small amounts absorb with sand or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information.
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

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## 14. TRANSPORT INFORMATION

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### NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

<b>Shipping Name</b>	None Allocated				
<b>UN No.</b>	None Allocated	<b>DG Class</b>	None Allocated	<b>Subsidiary Risk(s)</b>	None Allocated
<b>Packing Group</b>	None Allocated	<b>Hazchem Code</b>	None Allocated	<b>EPG</b>	None Allocated

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## 15. REGULATORY INFORMATION

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<b>Poison Schedule</b>	Classified as a Schedule 5 (S5) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
<b>AICS</b>	All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

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## 16. OTHER INFORMATION

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<b>Additional Information</b>	WORKPLACE CONTROLS AND PRACTICES: Unless a less toxic chemical can be substituted for a hazardous substance, ENGINEERING CONTROLS are the most effective way of reducing exposure. The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release. Isolating operations can also reduce exposure. Using respirators or protective equipment is less effective than the controls mentioned above, but is sometimes necessary.
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EXPOSURE STANDARDS - TIME WEIGHTED AVERAGE (TWA) or WES (WORKPLACE EXPOSURE STANDARD) (NZ): Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to

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eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

**ABBREVIATIONS:**

ADB - Air-Dry Basis.

BEI - Biological Exposure Indice(s)

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

CNS - Central Nervous System.

EINECS - European INventory of Existing Commercial chemical Substances.

IARC - International Agency for Research on Cancer.

M - moles per litre, a unit of concentration.

mg/m<sup>3</sup> - Milligrams per cubic metre.

NOS - Not Otherwise Specified.

NTP - National Toxicology Program.

OSHA - Occupational Safety and Health Administration.

pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

ppm - Parts Per Million.

RTECS - Registry of Toxic Effects of Chemical Substances.

TWA/ES - Time Weighted Average or Exposure Standard.

**HEALTH EFFECTS FROM EXPOSURE:**

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**Report Status**

This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

**Prepared By**

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**End of Report**