

# SAFETY DATA SHEET




Date of Issue: October 2023

## 1. IDENTIFICATION

<b>Product Name</b>	<b>Potassium Silicate</b>	
<b>Product Code</b>	None	
<b>Recommended Use</b>	Liquid fertiliser for agricultural use.	
<b>Supplier Name</b>	<b>Eco Growth WA</b>	<b>Eco Growth QLD</b>
<b>Address</b>	4/35 Tamara Drive Cockburn Central Western Australia 6164	540 -604 Warrego Highway North Tivoli Queensland 4305
<b>Phone Number</b>	+61 8 9417 9101	+61 7 3282 7166
<b>Email</b>	<a href="mailto:info@ecogrowth.com.au">info@ecogrowth.com.au</a>	<a href="mailto:admonqld@ecogrowth.com.au">admonqld@ecogrowth.com.au</a>
<b>Website</b>	<a href="http://www.ecogrowth.com.au">www.ecogrowth.com.au</a>	
<b>Emergency Phone Number</b>	13 11 26 (Poisons Information Centre)	

## 2. HAZARDS IDENTIFICATION

<b>Classification</b>	Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
<b>Label Elements</b>	
<b>Hazard Categories</b>	Serious Eye Damage / Eye Irritation, Category 1
<b>Signal Word</b>	Danger
<b>Pictograms</b>	
<b>Hazard Statements</b>	Causes serious eye damage.
<b>Precautionary Statements</b>	
<b>Prevention</b>	Wear eye protection/face protection.
<b>Response</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician.

**3. COMPOSITION AND INFORMATION ON INGREDIENTS**

Ingredient	CAS No.	Content
Potassium silicate	1312-76-1	20 - 40%
Non-hazardous ingredients including water		60 - 80%

**4. FIRST AID MEASURES****Description of Necessary First Aid Measures**

<b>Inhalation</b>	If inhaled, remove person affected to fresh air. If ill-effects persist, contact a doctor.
<b>Skin Contact</b>	Immediately flush skin with running water for at least 20 minutes, while removing contaminated clothing and shoes. If skin irritation occurs, get medical attention. Wash contaminated clothing and shoes before reuse. No attempt should be made to neutralise the alkali with acid solutions, as this may aggravate the burns.
<b>Eye Contact</b>	Small amounts splashed into the eyes can cause irreversible tissue damage and blindness. If eye contact occurs, rinse immediately with plenty of water and get medical attention. Continue rinsing affected eyes for at least 15 minutes. Remove contact lenses if present and easy to do. Keep eyes open while rinsing. If eye irritation persists, consult a specialist.
<b>Ingestion</b>	DO NOT INDUCE VOMITING. Rinse mouth with water and then give water to drink. Never give anything by mouth to an unconscious person. If vomiting occurs, give more water to drink. Call a Poison Information Centre on 13 11 26 (Australia Wide) for advice.

**Symptoms Caused by Exposure**

See Section 11 for more detailed information on health effects and symptoms.

**Medical Attention and Special Treatment**

Treat symptomatically as for strong alkalis.

**5. FIRE FIGHTING MEASURES****Suitable Extinguishing Equipment**

Not a combustible material. Use extinguishing media appropriate to the source of the fire.

**Specific Hazards Arising from the Chemical**

Fire or heat may produce irritating, toxic and/or corrosive fumes, including Potassium silicate containing mist. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminium, tin, and zinc.

**Special Protective Equipment and Precautions for Fire Fighters**

Evacuate area and contact emergency services. Toxic gases may be present in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing

Apparatus (SCBA) when combatting fire. Use water fog or spray to cool intact containers and nearby storage areas.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

Spilled material is slippery. Clean up spills immediately to prevent further accidents. In the event of a large spill, wear protective clothing as specified in Section 8. Do not walk through spilled liquid and avoid breathing fumes. Dried liquid may form a glass film that can easily cut skin.

### Environmental Precautions

Keep product away from drains and surface/ground water and/or flow channels. Stop leak if it is safe to do so. Dike far ahead of large spill for later disposal.

### Methods and Materials for Containment and Cleaning Up.

For minor spills, dilute and flush away with copious amounts of water. For large spills, contain spillage, then cover / absorb spill with absorbent material (sawdust, vermiculite, sand, earth, or similar), collect and place in suitable containers for disposal. Wash contaminated area with water.

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling, including any Incompatibilities

Before use, read all Safety Information, including Directions for Use on the label. Use safe work practices to avoid eye or skin contact. Wash hands after use. DO NOT MIX with other agrichemicals such as herbicides, insecticides or fungicides. Wash personal protective equipment after use.

### Conditions for Safe Storage

Store in a cool, dry, well-ventilated area in the original container. Keep container tightly closed when not in use. Check regularly for leaks or spills. Avoid prolonged storage below 10°C or above 50°C.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Exposure Control methods

No exposure standard has been established for this product,

### Biological Monitoring

Not required.

### Engineering Controls

Use in well-ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.

### Individual Protection Measures - Personal Protective Equipment (PPE)

#### Respiratory Protection

Not required under normal conditions of use.

#### Skin Protection

Clothing should include long sleeves, long trousers, safety boots and chemically resistant gloves. Recommended glove types include PVC or nitrile (AS 2161). The use of elbow length gloves is recommended.

**Eye and Face protection**                      Wear safety glasses with side shields or splash-proof chemical goggles (AS 1336 / 1337).

Where PPE is to be used, ensure that workers have been instructed and trained in use, storage and maintenance of equipment. All PPE should meet relevant Australian Standards for the article in use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Opaque, dark brown, viscous liquid.
<b>Odour</b>	Faint earthy odour
<b>pH (neat)</b>	10 – 11.5
<b>Melting Point / Freezing Point</b>	<0°C
<b>Boiling Point</b>	>100°C
<b>Flammability</b>	Not combustible
<b>Specific Gravity at 20°C</b>	Approx. 1.3
<b>Solubility in water</b>	Soluble

## 10. STABILITY AND REACTIVITY

### Reactivity

Stable under normal conditions of storage and handling (10 to 50°C).

### Chemical Stability

Stable under normal conditions of storage and handling (10 to 50°C).

### Possibility of Hazardous Reactions

May react violently or with acids. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminium, tin, lead and zinc.

### Conditions to Avoid

Avoid prolonged storage below 10°C and above 50°C. Keep out of direct sunlight. Avoid exposure to air (reacts slowly with carbon dioxide to form insoluble glassy deposits).

### Incompatible Materials

Incompatible with strong acids.

### Hazardous Decomposition Products

In a fire, product will decompose emitting irritating and toxic gases including mists of potassium silicate and oxides of carbon.

## 11. TOXICOLOGICAL INFORMATION

### Information on Possible Routes of Exposure

Inhalation:                      Product is not volatile. Inhaling spray mist may cause upper respiratory tract irritation.

Skin contact:	May cause irritation, itching and skin rash.
Ingestion:	Product is not acutely toxic. Ingestion may cause nausea, vomiting and gastrointestinal irritation.
Eye contact:	A severe eye irritant. May cause conjunctivitis (inflammation of the eyes) and possibly corneal burns and ulceration resulting in irreversible eye damage,
Chronic effects:	Prolonged or repeated skin contact may cause dry skin. Defatting of the skin can result in irritation and dermatitis (inflammation of the skin).

**Acute Health Effects**

<b>Inhalation</b>	Not classified.
<b>Skin</b>	Not classified.
<b>Eye</b>	Not classified.
<b>Ingestion</b>	Not classified.
<b>Skin Corrosion / Irritation</b>	Not classified.
<b>Serious Eye Damage / Irritation</b>	Causes serious eye irritation.
<b>Respiratory or Skin Sensitisation</b>	Not classified.
<b>Germ Cell Mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	Not classified.
<b>Reproductive Toxicity</b>	Not classified.
<b>Specific Target Organ Toxicity (STOT) – single exposure</b>	Not classified.
<b>Specific Target Organ Toxicity (STOT) – repeated exposure</b>	Not classified.
<b>Aspiration Hazard</b>	This product is not expected to present an aspiration hazard.
<b>Chronic Health Effects</b>	None known.
<b>Existing Conditions Aggravated by Exposure</b>	None known
<b>Additional Toxicological Information</b>	No data

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Not hazardous when applied to soil at the recommended rates. In its concentrated form, this product may have short term negative impact on soil, animals and plants. The concentrated product is not considered harmful to aquatic organisms. However, the concentrated product and the used containers should not be allowed to enter the aquatic environment.

**Persistence and Degradability**

This material is not persistent in aquatic systems; Diluted material rapidly depolymerizes to yield dissolved silica in a form that is indistinguishable from natural dissolved silica.

**Bioaccumulative Potential**

None of the ingredients in this product are known to have the potential for bioaccumulation.

**Mobility in Soil**

Low soil mobility under normal environmental conditions.

**Other Adverse Effects**

Ensure appropriate measures are taken to prevent this product from entering the environment in concentrated form. Do not allow this product or the used containers to contaminate waterways.

**13. DISPOSAL CONSIDERATIONS****Disposal Methods**

If possible, product should be collected and reused for its intended purpose. If contaminated with other materials, product must be disposed of to an approved landfill site in accordance with relevant local legislation.

Do not contaminate ponds, waterways or ditches with the product or used container. Do not re-use empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. TRANSPORT INFORMATION****ROAD AND RAIL TRANSPORT**

**Not classified as a dangerous good by the criteria of the ADG code, IMDG or IATA**

<b>UN Number</b>	None allocated.
<b>Proper Shipping Name or Technical Name</b>	None allocated.
<b>Transport Hazard Class</b>	None allocated.
<b>Packing Group</b>	None allocated.
<b>Subsidiary Risk(s)</b>	None allocated.
<b>Environmental Hazards for Transport Purposes</b>	None allocated.
<b>Special Precautions for User</b>	None.
<b>Additional Information</b>	None
<b>Hazchem Code</b>	None allocated.

**15. REGULATORY INFORMATION****Safety, Health and Environmental Regulations**

All components are listed on the Australian Inventory of Chemical Substances (AICS) or are exempt. Not classified under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP).

**16. OTHER INFORMATION**

**Additional Information**

The effects from exposure to this product depend on several factors including frequency and duration of use, the amount used, control measures adopted, protective equipment used and method of use. It is impractical to prepare a data sheet that encompasses all possible situations; therefore, it is anticipated that users will assess the risks and apply control methods as appropriate.

**Report Status**

This document is based on the best available information at the time of issue and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for this product. While all due care has been taken to include accurate and up-to-date information, no warranty as to accuracy or completeness is provided. As far as lawfully possible, Eco Growth 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 reliance on the information contained in this Safety Data Sheet.

<b>Revision Number</b>	1
<b>Date Prepared</b>	October 2023
<b>Date of Next Review</b>	October 2026

**End of Report**