

## PGA REACTOR

Infosafe No.: LQAWO  
ISSUED Date: 31/08/2022  
ISSUED By: PROGRIND AUSTRALIA

### SECTION 1 – IDENTIFICATION

**Product Identifier**

PGA REACTOR

**Company Name**

PROGRIND AUSTRALIA (ABN 75 095 939 834)

**Address**

56 Jersey Road, Bayswater VIC 3153, Australia

**Telephone/Fax Number**

Tel: 1300 763 666

**Emergency Phone Number**

1300 763 666

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

Concrete Surface Hardener & Dust Binder.

### 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)

Eye damage/irritation: Category 1

Skin corrosion/irritation: Category 2

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

**Signal Word(s)**

DANGER

**Hazard Statement(s)**

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

**Pictogram(s)**

Corrosion, Exclamation mark

**Precautionary Statement - Prevention**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

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



### Precautionary Statement - Response

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.

P310 Immediately call a POISON CENTER/doctor.

### Precautionary Statement - Storage

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

P405 Store locked up.

### Precautionary Statement - Disposal

PS01 Dispose of contents/container to an approved waste disposal plant.

## SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

### Ingredients

NAME	CAS	PROPORTION
Potassium silicate	1312-76-1	30-60%
Ingredients determined not to be hazardous, including water		Balance

### Information on Composition

Potassium Silicate Solution, MR 2.6-3.2

## SECTION 4 - FIRST AID MEASURES

### 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 until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

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

### Suitable Extinguishing Media

Dry chemical, water spray, regular foam and carbon dioxide.

### Hazards from Combustion Products

Non combustible material.



### **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. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminium, tin, lead, and zinc.

### **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,

## **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.

As a water based product, if spilt on electrical equipment the product will cause short-circuits. Spilled material can be slippery. High pH of this material is harmful to aquatic life. Avoid contaminating waterways.

## **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. Protect from freezing. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials: acids, reactive metals, ammonium salts and foodstuffs. Ensure that storage conditions comply with applicable local and national regulations. Protect from freezing.

### **Handling Temperatures**

Loading temperature: 5-50 °C.

### **Storage Temperatures**

5-60°C

### **Recommended Materials**

Store in clean steel or plastic containers. Separate from acids, reactive metals, and ammonium salts.

### **Unsuitable Materials**

Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers.

## **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 full face shield should be used. 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. 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	Clear to hazy liquid
Colour	Colourless	Odour	Odourless
Melting Point	0°C	Boiling Point	105 to 108°C
Decomposition Temperature	Not available	Solubility in Water	Soluble
Specific Gravity	1.2 to 1.6	pH	11-13 (100% Potassium Silicate)
Vapour Pressure	Not available	Relative Vapour Density (Air=1)	Not applicable
Evaporation Rate	Not available	Odour Threshold	Not available
Viscosity	20-5000 cPs	Volatile Component	Volatile Organic Compound Content (%): 0
Partition Coefficient: n-octanol/water (log value)	Not available	Flash Point	Not available
Flammability	Non flammable	Auto-Ignition Temperature	Not available
Flammable Limits - Lower	Not available	Flammable Limits - Upper	Not available

## SECTION 10 - STABILITY AND REACTIVITY

### Chemical Stability

Stable under normal conditions of storage and handling. Absorbs carbon dioxide on exposure to air, which results in the deposition of insoluble silica.



**Possibility of hazardous reactions**

Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminium, tin, lead, and zinc. May react with ammonium salts resulting in evolution of ammonia gas. May react violently with: Acids.

**Conditions to Avoid**

Extremes of temperature and direct sunlight. Leaving solutions exposed to carbon dioxide in the air.

**Incompatible Materials**

Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers. Separate from acids, reactive metals, and ammonium salts.

**Hazardous Decomposition Products**

Thermal decomposition may result in the release of toxic and/or irritating fumes.

**Reactivity and Stability**

Reacts with incompatible materials. Absorbs carbon dioxide on exposure to air, which results in the deposition of insoluble silica.

**Hazardous Polymerization**

Will not occur.

## SECTION 11 - TOXICOLOGICAL INFORMATION

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**Toxicology Information**

No toxicity data available for this material.

**Acute Toxicity - Oral**

LOSO (rat): 3400 mg/kg.

**Ingestion**

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

**Inhalation**

Inhalation of product vapours causes irritation of the mucous membranes 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.

**Skin Corrosion/Irritation**

Potassium silicates can be irritating to corrosive to the skin of rabbits, depending on their molar ratio and concentration. Irrespective of the counterion ( $\text{Na}^+$  or  $\text{K}^+$ ), silicates were found to be corrosive at molar ratios up to 1.6 and concentrations >50%. At molar ratios >1.6, silicates are irritating to the skin, while molar ratios >3.2 and concentrations <40% did not lead to irritative effects.

**Eye**

Causes eye damage. Eye contact will cause stinging, blurring, tearing, severe pain and possible burns, necrosis, permanent damage and blindness.

**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 available for this material. High pH when undiluted or unneutralized is acutely harmful to aquatic life.

### Persistence and degradability

The product is unlikely to persist in the environment.

### Mobility

Soluble in water. The product is predicted to have high mobility in soil.

### Bioaccumulative Potential

The product has low potential for bioaccumulation.

### Other Adverse Effects

Not available.

### Environmental Protection

Prevent this material entering waterways, drains and sewers.

### 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, refer to Section 8 - Exposure Controls and Personal Protection.

## SECTION 14 - TRANSPORT INFORMATION

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### Transport Information

Road and Rail Transport:

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

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.

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.

### 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**

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**Montreal Protocol**

Not available

**Stockholm Convention**

Not available

**Rotterdam Convention**

Not available

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

Not listed

**Agricultural and Veterinary Chemicals Act 1994**

Not listed

**Basel Convention**

Not listed

## SECTION 16 - ANY OTHER RELEVANT INFORMATION

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**Date of Preparation**

SDS amendment: December 2022 9. Physical and Chemical Properties

SDS amendment: September 2022 1. Identification

SDS Reviewed: August 2022

Supersedes: May 2019

**Version Number**

2.2

**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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