SAFETY DATA SHEET

PGA REACTOR LITHUM

Infosafe No.: LQAWN
ISSUED Date : 31/08/2022
ISSUED by: PRO GRIND AUSTRALIA

Section 1 - Identification

Product Identifier
PGA REACTOR LITHUM

Company Name
PRO GRIND AUSTRALIA (ABN 75 095 939 834)

Address
5/176 Canterbury Road BAYSWATER NTH
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
Detergent ingredient; adhesive; binder; feedstock silica source; general chemical.

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 2
Skin corrosion/irritation: Category 2

Signal Word (s)
WARNING

Hazard Statement (s)
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Pictogram (s)
Exclamation mark

Precautionary Statement – Prevention
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/face protection.
P280 Wear protective gloves.

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.
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.

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
Lithium Silicate	12627-14-4	30-60 %
Ingredients determined not to be hazardous, including water.		Balance

Information on Composition
Lithium Silicate Solution, MR 2.6-3.2

Section 4 - First Aid Measures

Inhalation
If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist 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 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. 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

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

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. (Acids, reactive metals, and ammonium salts). 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
Clean steel or plastic containers

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

Section 8 - Exposure Controls and Personal Protection

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. 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 aqueous liquid
Colour	Colourless	**Odour**	Odourless
Melting Point	0 °C	**Boiling Point**	105 to 108°C
Decomposition Temperature	Not available	**Solubility in Water**	Not available
Specific Gravity	1.2 to 1.6	**pH**	11 to 13 (100% Lithium Silicate)
Vapour Pressure	Not available	**Relative Vapour Density (Air=1)**	Not available
Evaporation Rate	Not available	**Odour Threshold**	Not available
Viscosity	20 - 5000 cPs	**Volatile Component**	30-60% Volatile Organic Compound Content (%): 0
Partition Coefficient: n-octanol/water (log value)	Not available	**Flash Point**	Not applicable
Flammability	Non combustible	**Auto-Ignition Temperature**	Not available
Flammable Limits - Lower	Not applicable	**Flammable Limits - Upper**	Not applicable

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.

Section 11 - Toxicological Information

Toxicology Information
Toxicity data available for this material is given below.

Acute Toxicity - Oral
LD50 (rat) : 3400mg/kg

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

Inhalation
Inhalation of product vapours may 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.

Skin Corrosion/Irritation
Lithium silicates can be irritating to corrosive to the skin of rabbits, depending on their molar ratio and concentration. Irrespective of the counterion (Na+ or 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 serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

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
Not expected to cause toxicity to a specific target organ.

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

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

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

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

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.
Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule
Not Scheduled

Montreal Protocol
Not available

Stockholm Convention
Not available

Rotterdam Convention
Not available

International Convention for the Prevention of Pollution from Ships (MARPOL)
Not applicable

Agricultural and Veterinary Chemicals Act 1994
Not applicable

Basel Convention
Not applicable

Section 16 - Any Other Relevant Information

Date of Preparation
SDS Reviewed: August 2022
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Version Number
2.0

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