

Date of issue: 27 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

Safety Data Sheet

FIL QUANTUM POWDER

Classified as: Hazardous according to the EPA Hazardous Substances
 (Hazard Classifications) Notice 2020.

Section 1: SUBSTANCE AND SUPPLIER DETAILS

Product Name: FIL Quantum Powder

Supplier: FIL is a wholly owned subsidiary of
 GEA Farm Technologies New Zealand Ltd

Address: 72 Portside Drive
 Mt Maunganui 3116
 New Zealand

Phone: +64 7 575 2162

Website: www.fil.co.nz

Recommended Use: Alkaline cleaner

In Case of Emergency Contact:

CHEMCALL: 0800 CHEMCALL (243 622)

Section 2: HAZARDS IDENTIFICATION

Classified as a Dangerous Good for Transport.

Classified as hazardous according to criteria in the EPA Hazardous Substances (Hazard Classifications) Notice 2020.

HSNO APPROVAL NUMBER: **HSR002526**

HSNO CLASSIFICATIONS: 6.1D – Acutely toxic, oral
 6.1D – Acutely toxic, dermal
 8.1A – Corrosive to metals
 8.2B – Skin corrosive
 8.3A – Eye corrosive
 9.1B – Ecotoxic in the aquatic environment, chronic

GHS Classification: Acute toxicity, oral – Category 4
 Acute toxicity, dermal – Category 4
 Corrosive to metals – Category 1
 Skin corrosion – Category 1B
 Serious eye damage – Category 1
 Hazardous in the aquatic environment, chronic – Category 2

Hazard Statements:

H302 Harmful if swallowed
 H312 Harmful in contact with skin
 H290 May be corrosive to metals



Date of issue: 27 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

H314 Causes severe skin burns and eye damage
 H411 Toxic to aquatic life with long lasting effects

GHS Pictograms:



DANGER

PREVENTION STATEMENTS:

- P102 Keep out of reach of children.
- P103 Read Label before use.
- P234 Keep only in original container.
- P260 Do not breathe mist/spray.
- P264 Wash hands, exposed skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P273 Avoid release to the environment.
- P280 Wear protective gloves, protective clothing, and eye/face protection.

RESPONSE STATEMENTS:

- P101 If medical advice is needed, have product container or label at hand.
- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.
- P363 Wash contaminated clothing before reuse.
- P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- P321 Specific treatment (see first aid instructions on this label).
- 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 CENTRE or doctor/physician.
- P390 Absorb spillage to prevent material damage.
- P391 Collect spillage.

STORAGE:

- P405 Store locked up.
- P406 Store in corrosive resistant container with a resistant inner liner.

DISPOSAL:

P501 - In accordance with the EPA Hazardous Substances (Disposal) Notice 2017. Dispose of via an approved waste disposal contractor. Refer to Section 13 of the SDS.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Mixture: Alkaline Cleaner

Main Component	CAS Number	Concentration (%wt)
Sodium hydroxide	1310-73-2	70 - 80%

Date of issue: 27 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

Sodium dichloroisocyanurate dihydrate	51580-86-0	2.5 - 6%
---------------------------------------	------------	----------

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4: FIRST AID MEASURES

Workplace Facilities Required:	Eye wash and safety shower facilities should be provided.
If Inhaled:	Remove to fresh air. Seek medical attention if symptoms persist.
In Contact with Eye:	Hold eyes open, flush continuously with water for at least 30 minutes. Seek immediate medical attention. Continue flushing until told to stop by a medical professional. Total flushing time should not be less than 30 minutes.
In Contact with Skin:	Remove contaminated clothing. Wash skin with plenty of water. Seek immediate medical attention. Wash contaminated clothing before reuse.
If Swallowed:	DO NOT INDUCE VOMITING. Rinse mouth. Give small quantities of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention. If vomiting occurs, keep head below hips to prevent aspiration to lungs.
Advice to Doctor:	Treat symptomatically. Substance is alkaline and may continue to cause damage several hours after exposure. Pain and other effects are often delayed and there may be a time delay between exposure and patient applying first aid during which time burns have advanced. Ophthalmological opinion should be sought for burns to eyes.
Other information:	Pain is often delayed after exposure. It is important to wash skin or flush eyes immediately after suspected exposure and to continue flushing for a minimum of 20 minutes for skin and 30 minutes for eyes. By the time pain develops significant skin or eye damage may have already occurred. Special consideration needs to be given to eye exposures as sodium hydroxide reacts with eye proteins producing harmful alkaline substances which can further damage the eye.

Section 5: FIRE FIGHTING MEASURES

Fire/Explosion Hazard:	Product is not flammable or combustible.
Suitable Extinguishing Media:	Use water spray or fog, foam, dry chemical powder, or carbon dioxide.
Precautions in Connection with Fire:	May give off toxic and corrosive fumes in a fire.
Advice for firefighters:	Wear full firefighting gear and self-contained breathing apparatus. Prevent spills from entering drains and water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

An emergency response plan meeting the requirements of Part 5 of the Health and Safety at Work (Hazardous Substances) Regulations 2017 is required when held in quantities greater than 1,000kg.

Date of issue: 27 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

Precautions: Clear area of all unprotected personnel. Keep unnecessary and unprotected personnel from entering area. Avoid generating dust. Avoid release to the environment.

Suitable Protective Equipment: Emergency responders must use personal protective equipment, including gloves, protective overalls and footwear, safety goggles or face shield and respiratory protection if there is a risk of inhaling dust.

Spill or Leak Procedures. Contain the spill. Collect spilled material and place in a suitable, clean, chemical waste container. Ensure waste container is properly labelled.

Waste Disposal Methods: Dispose of as per Section 13.

Emergency preparation: Ensure there is appropriate and adequate personal protective equipment, trained personnel and clean up materials for management of accidental release.

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with skin and eyes. Avoid generating dust. Do not eat drink or smoke when using this product. Remove contaminated clothing and wash hands and face before entering eating areas.

Storage: Keep out of reach of children. Store locked up. Store in original container. Keep away from heat and direct sunlight. Store away from food and animal feed.

Site Storage Requirements: Site Signage will be required when quantities exceed 250kg.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace Exposure Standards NZ: No Workplace Exposure Standards have been established for this product. Workplace Exposure Standards have been set for the following ingredient:

Sodium hydroxide: Ceiling 2ppm

Engineering Controls: Eyewash facilities and safety showers should be provided in the work area where there is a risk of exposure to eyes and skin. Use in a well-ventilated area. If natural ventilation is insufficient consider engineering controls such as local exhaust ventilation to ensure workers are not exposed to levels exceeding the exposure standards.

Personal Protective Equipment: Observe good chemical hygiene practice.

Hand protection: Wear protective gloves that are resistant to the product, e.g. PVC. Gloves should be elbow length. Refer to Australian and New Zealand Standard AS/NZS 2161 for protective gloves.

Skin and body protection: Use protective overalls and PVC apron. Remove any contaminated clothing to avoid prolonged contact with the skin. Wash work clothes regularly. Refer to Australian and New Zealand Standard AS/NZS 4501 for occupational protective clothing.

Eye protection: Use chemical safety goggles to protect eyes. Refer to AS/NZS 1336 for suitable eye and face protection.

Respiratory protection: Where there is inadequate ventilation and use results in the formation of dust, use a respirator suitable for caustic dust. Refer to AS/NZS 1715 and AS/NZS 1716

Date of issue: 27 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

for suitable respiratory protection.

Other information: PPE selected must be impervious to the substance. Do not eat, smoke, or drink where material is handled, processed, or stored. Wash hands carefully before eating, drinking, or smoking. Handle in accordance with safe industrial hygiene practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid powder	Colour:	White
Odour:	Odourless	Odour Threshold:	Not applicable
pH:	9.8	Solubility:	Approx. 40% in water
Melting/Freezing Point:	Not available	Boiling Point:	Not available
Flash Point:	Not applicable	Flammability:	Not flammable
Lower/Upper Flammability Limits:	Not applicable	Vapour Pressure:	Not available
Vapour Density:	Not available	Relative Density:	Approx. 1.0
Partition Coefficient:	Not available	Auto-ignition Temperature:	Not applicable
Decomposition Temperature:	Not available	Kinematic Viscosity:	Not available
Particle Characteristics:	Not available		

Section 10: STABILITY AND REACTIVITY

Stability:	Stable under normal storage conditions.
Reactivity:	Reacts exothermically with acids and water. May produce toxic gases on contact with acids.
Conditions to Avoid:	Avoid generating dust. Avoid accidental contact with water.
Incompatibility:	Incompatible with strong oxidisers, acids, reducing agents, metals, amines, ammonium compounds, cyanides, nitro compounds, phenols, and combustible organics.
Hazardous Decomposition:	Decomposition may result in formation of toxic and corrosive fumes.

Section 11: TOXICOLOGICAL INFORMATION

Acute Exposure

Acute Toxicity:	LD50 oral > 300 - ≤ 2000 mg/kg. LD50 dermal > 1000 - ≤ 2000 mg/kg LC ₅₀ inhalation (dust) > 5.0 mg/L
Inhalation:	Inhalation of large volumes of dust may cause irritation to mucous membranes.
Ingestion:	Ingestion may cause chemical burns to mouth and gastrointestinal tract and may cause nausea, diarrhoea, and vomiting.
Skin Corrosion/Irritation:	Product is highly skin corrosive and will remove skin hairs, cause redness, and

Date of issue: 27 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

skin burns. Pain may be delayed.

Serious Eye Damage/Eye Irritation: Product is corrosive to the eyes and may cause corneal burns. Reacts with eye proteins. Pain may be delayed.

Respiratory or Skin Sensitisation: No information available. Not expected to be a respiratory or skin sensitiser.

Chronic Exposure:

Mutagen/Carcinogen/Reproductive Toxicant No chronic toxicity effects expected.

Specific Target Organ Toxicity Single Exposure: No information available. No known effects.

Specific Target Organ Toxicity Repeated Exposure: No information available. No known effects.

Aspiration Hazard: No information available. Not expected to be an aspiration hazard.

Toxicity data is based on hazardous ingredient information and information in the EPA Chemical Classification and Identification Database.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Ecotoxic in the aquatic environment with long-lasting effects. Avoid losses to the environment wherever possible.

LC/EC₅₀ > 1 – ≤ 10 mg/L

Persistence/degradability: Not available for product. Sodium dichloroisocyanurate dihydrate is not biodegradable.

Bioaccumulation: No information available.

Mobility in soil: No information available.

Other adverse effects: None identified.

Ingredients with Ecotoxic classifications: Sodium dichloroisocyanurate dihydrate is very ecotoxic in the aquatic environment with both acute and chronic effects. At the concentration present in the product this will cause the product to be classified as ecotoxic in the aquatic environment with long-term effects.

There are no other ingredients with ecotoxic classifications.

Ecotoxicity data is based on information in the EPA Chemical Classification and Identification Database.

Section 13: DISPOSAL CONSIDERATIONS

Disposal: Do not allow product to enter drains or waterways. Recycle and reuse wherever possible. Waste product may be treated with dilute acid prior to disposal so it is no longer hazardous. Dispose of waste product via an approved waste disposal contractor.

Disposal of Packaging: Packaging may contain product residues and should be treated as hazardous. Where possible return to supplier for reuse/recycling. Dispose of packaging via an approved waste disposal contractor.

Date of issue: 27 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

Section 14: TRANSPORT INFORMATION

Classified as a Dangerous Good for transport in accordance with NZS5433:2020, IMDG or IATA.



NZS5433:2020

UN No: 3262

Proper Shipping Name: Corrosive solid, basic, inorganic, n.o.s. (contains sodium hydroxide and sodium dichloroisocyanurate dihydrate)

Class: 8

Packing Group: II

Environmental hazard: Environmentally hazardous

Limited Quantity: 1 kg

Hazchem Code: 2X

IMDG:

UN No: 3262

Proper Shipping Name: Corrosive solid, basic, inorganic, n.o.s. (contains sodium hydroxide and sodium dichloroisocyanurate dihydrate)

Class: 8

Packing Group: II

Marine Pollutant: Yes

EmS: F-A, S-B

Limited Quantity: 1 kg

IATA:

UN No: 3262

Proper Shipping Name: Corrosive solid, basic, inorganic, n.o.s. (contains sodium hydroxide and sodium dichloroisocyanurate dihydrate)

Class: 8

Packing Group: II

Environmental hazard: Yes

Ensure transportation methods prevent leakage from packages and collapsing loads.

Section 15: REGULATORY INFORMATION

Group Standard Allocation: Cleaning Products (Corrosive) Group Standard 2020

HSNO Approval Code: HSR002526

Classifications: Acute toxicity, oral – Category 4
 Acute toxicity, dermal – Category 4
 Corrosive to metals – Category 1
 Skin corrosion – Category 1B
 Serious eye damage – Category 1

Date of issue: 27 March 2024
 Revised by: Simonne Moses - HSNO Consultant SDS No: 2

Hazardous in the aquatic environment, chronic – Category 2

NZ Inventory of Chemicals: All ingredients are listed in the NZ Inventory of Chemicals.

This substance triggers:	Compliance Certificate	250 kg
	Certified Handler	N/A
	Emergency Response Plan	1,000 kg
	Secondary Containment	N/A
	Signage	250 kg

This substance is not required to be Tracked. All workplace personnel handling this substance are required to be trained on the safe handling and PPE requirements for the hazards associated with this substance.

Section 16: OTHER INFORMATION

The information provided in this Safety Data Sheet relates only to the specific material designated herein. This Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products.

This substance is approved under HSNO for use as a cleaning product. All reasonable care has been taken to ensure that the information and advice contained herein are from sources believed to be reliable and to represent the most up-to-date knowledge available at the date given in Section 16. No liability is assumed for any damages related to the use or misuse of this substance.

All chemical materials may present unknown hazards as people have varying degrees of sensitivity to chemicals. Therefore, this product should be used with caution. The information herein is given in good faith, but no warranty, express or implied is made.

SDS Issued: 27/03/2024

Supersedes: 2/08/2019

Reason for Revision: 5-year review and update.

References:

EPA NZ Chemical Classification and Information Database
 EPA Guide: Guide to Classifying Hazardous Substances in New Zealand, Version 1

Summary of Abbreviations: EPA – Environmental Protection Authority
 GHS – Global Harmonisation System
 CAS – Chemical Abstracts Service
 TWA – Time Weighted Average

END OF SAFETY DATA SHEET