

FIL Quantum One

SAFETY DATA SHEET

Issue Date: 28-Jan-15

1. Product and Company Identification

Product Name: FIL QUANTUM ONE
Proper Shipping Name: PHOSPHORIC ACID Solution
Synonyms: Dairy Acid, orthophosphoric acid
Recommended Use: Farm dairy detergent/sanitiser
Molecular Formula: Mixture based on H₃PO₄
Manufacturer: FIL is a wholly owned subsidiary of GEA Farm Technologies New Zealand Ltd
Address: 72 Portside Drive, Mount Maunganui
Telephone Number: 07 575 2162
Fax Number: 07 575 2161
Emergency phone No: 24hr 0508 434 569
Website: www.fil.co.nz
Email: info@fil.co.nz

2. Hazards Identification

Dangerous Goods: 8

Toxic Substance:

Hazardous Substance (HSNO):



DANGER

HSNO Classification and

Hazard Statements:

6.1D Acutely Toxic Substance (Medium Hazard)

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

8.1A Corrosive to Metals (High Hazard)

H290 May be corrosive to metals.

8.2C Corrosive to Dermal Tissue (Medium Hazard)

H314 Causes severe skin burns and eye damage.

8.3A Corrosive to Occular Tissue (High Hazard)

H318 Causes serious eye damage.

9.1D Ecotoxic in the Aquatic Environment (Low Hazard)

H413 May cause long lasting harmful effects to aquatic life.

9.3C Ecotoxic to Terrestrial Vertebrates (Medium Hazard)

H433 Harmful to terrestrial vertebrates.

Prevention statements:

P102 Keep out of reach of children.
 P103 Read label before use.
 P104 Read safety data sheet before use.
 P234 Keep only in original container.
 P260 Do not breathe vapours/spray.
 P264 Wash hands thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 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+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately dilute with 120-240 mL of water or milk.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water
 P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 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 or doctor/physician.
 P312 Call a POISON CENTER or doctor/physician if you feel unwell.
 P330 Rinse mouth.
 P331 Do NOT induce vomiting.
 P363 Wash contaminated clothing before reuse.
 P390 Absorb spillage to prevent material damage.

Storage statements:

P405 Store locked up.
 P406 Store in corrosive resistant(possibly stainless steel) container with a resistant inner

3. Composition/Information on Ingredients

Appearance:	Yellow liquid	
CAS No:	7664-38-2	Phosphoric Acid <40%
	5949-29-1	Citric acid monohydrate (< 10%)
	Surfactants, biocide, dye, water (to 100%)	

4. First Aid Measures

Ingestion: Call a doctor. Rinse mouth then give a glass or two of water or milk. DO NOT induce vomiting unless medical assistance is delayed by 15 minutes (take care to avoid patient inhaling stomach contents). If breathing stops start mouth to nose resuscitation. Arrange urgent transport to hospital.

Eye Contact: Wash eye with gently running water for at least 20 minutes. Do not rub the eye. Cover with sterile dressing. Seek medical attention immediately.

Skin Contact: Quickly remove contaminated clothing. Wash skin with large quantities of water.
Bathe affected areas in warm saline solution. Seek medical attention.

Inhalation: Remove the casualty from further contamination.

Notes to Physician: Treat symptomatically.

5. Fire-fighting Measures

Specific Hazards: Nil - not combustible. Decomposes on heating emitting toxic fumes.
Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition.
Electrical conductor - isolate power in case of spills.

Suitable Extinguishing Media: Water fog (or if unavailable fine water spray), foam, dry chemical powder.

6. Accidental Release Measures

Spill Cleanup Methods: Contain and absorb. Avoid contamination of waterways. Small quantities can be neutralized with soda ash provided the area is (can be) well ventilated, and washed to drain with large quantities of water.
Electrical conductor - isolate power in case of spills.
Follow instructions on FIL Emergency Response Plan: Chemical Spill

7. Handling and Storage

Handling: Corrosive. Non-flammable.
Avoid spilling, skin and eye contact. Wear protective clothing, including elbow length PVC gloves and suitable eye protection.
Use with adequate ventilation - avoid creation and inhalation of aerosols.
After use wash hands before eating, drinking or smoking.
Do not handle broken packages unless wearing appropriate personal protective equipment.

Storage: Do not store with D.G classes 1, 5, 7, strong alkalis, food or food containers.
Store in original container, tightly closed, away from foodstuffs and out of reach of children.

8. Exposure Control/Personal Protection

Exposure Standards: TWA 1mg/m³ - product is mainly used outside.
PEL 1mg/m³

Engineering Controls: Use with adequate ventilation - avoid creation and inhalation of aerosols.

Personal Protection: Use elbow length PVC gloves and suitable eye protection.

9. Physical and Chemical Properties

Appearance and Odour:	Yellow liquid.
Solubility in Water (g/l):	Fully miscible.
Specific Gravity:	1.21
Boiling Point/Melting Point (C):	Not Available
Vapour Pressure: (Pascals or mm of Hg @ 250C):	Not Available
Flashpoint (C):	Nil
Flammability Limits (%):	Not Applicable
pH Value:	1.5
Other properties:	Electrical conductor - isolate power in case of spills.

10. Stability and Reactivity

Stability:	Stable. Incompatible with strong alkalis, powdered metals, iron-containing compounds.
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11. Toxicological Information

General:	Corrosive and damaging to tissue. May be harmful if ingested, inhaled, gets in eyes or absorbed through skin.
Ingestion:	Corrosive. Burns in/around the mouth and digestive tract. Oral-Rat LD50 1530 mg/kg
Eye Contact:	Strong irritant - corrosive. Intense pain in the eye. Tightly closed. Reddened, swollen or watering excessively. Can't stand light.
Skin Contact:	Irritant, corrosive. Skin-Rabbit LD50 2740mg/kg
Inhalation:	Unlikely - potentially toxic/corrosive - avoid creating aerosols or mists. Inhalation-Rat LC50 >850 mg/m ³ /1h

12. Ecotoxicity Information

9.1D Ecotoxic in the Aquatic Environment Prevent from loss into natural waterways:	TLM 24 Mosquito fish 138mg/l in turbid water.
9.3C Ecotoxic to Terrestrial Vertebrates Secure from ingestion by animals:	Oral-Rat LD50 1530 mg/kg.

13. Disposal Considerations

Container Disposal:	Dispose of empty containers safely in accordance with local regulations. Triple rinse containers when empty. Add rinsings to use solutions. Avoid contamination of natural water supplies with chemical or empty container. After cleaning, all existing labels should be removed.
Product Disposal:	Adjust the pH to neutral with soda ash, separate any insoluble solids or liquids and package them for hazardous waste disposal. Flush the aqueous solutions down the drain with plenty of water. The hydrolysis and neutralization reactions may generate heat and fumes which can be controlled by the rate of addition and good ventilation.

14. Transport Information

UN No:	1805
Dangerous Goods Class:	8 Corrosive
Hazchem Code:	2R
Packing Group:	III
Proper Shipping Name:	PHOSPHORIC ACID Solution
Segregation:	Don't store with D.G classes 1, 5, 7, strong alkalis, food or food containers.
Limited Quantities	1L
Schedule 1 Quantity:	250 litres

15. NZ Regulatory Information

ERMA Approval Code: HSR002526

Group standard: Cleaning Products (Corrosive)

HSNO Classifications:	6.1D	Acutely Toxic Substance
	8.1A	Corrosive to Metals
	8.2C	Corrosive to Dermal Tissue
	8.3A	Corrosive to Occular Tissue
	9.1D	Ecotoxic in the Aquatic Environment
	9.3C	Ecotoxic to Terrestrial Vertebrates

HSNO Controls: Trigger quantities for this substance by itself in a Place:

Approved Handler Test Certificate:	<i>Not Required</i>
Hazardous Substance Location:	<i>Not Required</i>
Location Test Certificate:	<i>Not Required</i>
Hazardous Atmosphere Zone:	<i>Not Required</i>
Emergency Plan:	<i>1000 litres</i>
Tracking:	<i>Not Required</i>
Warning Sign:	<i>1000 litres</i>
Record of application or discharge:	<i>Not Required</i>

16. Other Information

Issue Date: 28-Jan-15
Review Date: 28-Jan-20

Definitions:	DG	Dangerous Good	
	LC50	Lethal concentration 50 % kill	
	LD50	Lethal dose 50 % kill	
	PEL	Permissible exposure limit	
	TLM24	24 hour median threshold limit	
	TWA	Time weighted average	<i>The 8-hour time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure</i>