

**DESCRIPTION:** Guano Phosphate

**PRODUCT NAME:** Guano Phosphate

**CHEMICAL FAMILY:** Ore from fossilized guano containing predominately Carbonate Apatites, Calcite and Silica

**PRODUCT USE:** Used as natural phosphate fertilizer, in agricultural and horticultural uses without modification

## HAZARDS IDENTIFICATION

NON HAZARDOUS SUBSTANCE, NON DANGEROUS GOODS

**Potential Acute Health Effects:** Contains fine particles. Dust may irritate eyes, nose, throat and skin upon prolonged contact

**Potential Chronic Health Effects:** Prolonged and or repeated exposure without protective equipment may cause progressive and permanent respiratory disorder

## COMPOSITION AND PHYSICAL PROPERTIES

Ingredient (common name)	CAS number	% weight
Calcium	7440-70-2	30
Silica	7631-86-9	10
Phosphorus	7723-14-0	10.5
Carbon	7440-44-0	3
Iron	7439-89-6	2
Manganese	7436-96-5	2
Zinc	7440-66-6	2
Sodium	7440-23-5	0.1
Potassium	7440-09-7	0.1
Sulphur	7704-43-9	0.07
Nitrogen	7727-37-9	0.05

Other ingredients deemed to be no hazardous to 100%

### Physical properties

Physical state - Solid Powder

Colour – Yellowish Brown

Odour – Earthy

Odour Threshold – N/A

pH - 8.2

Boiling Point – N/A

Melting Point – N/A

Solubility in water- Insoluble

Specific Gravity of Powder – 1.76

Bulk Density Powder 1.6g/cm<sup>3</sup>

### FIRST AID MEASURES

Eye – May cause irritation owing to abrasive nature of the dust. Wash eyes with running water for at least 15 minutes keeping eyes open. Seek medical attention if symptoms persist.

Skin – May cause dryness of the skin, wash affected skin areas with soap and water. Seek medical attention if symptoms persist.

Inhalation – If dust is inhaled move to fresh air and allow to rest. If a person is not breathing then provide artificial respiration; if breathing is difficult provide oxygen. Seek medical attention if symptoms persist.

Ingestion –do not give anything by mouth if person unconscious. Contains less than 1% Fluoride. Potential for acute fluorosis, if extensive ingestion has occurred. Seek medical attention if symptoms persist.

### FIRE FIGHTING

The product is NON FLAMMABLE

Auto ignite temperature- Not applicable

Flash Point- Not applicable

Products of combustion – Not applicable

Fire Fighting media- Not combustible.

HazChem Code- Not applicable

### ACCIDENTAL RELEASE MEASURES

Spills and Disposal – Sweep and reuse if not contaminated. If contaminated sweep into containers for salvage or disposal. Wash away uncontaminated residue with water.

Environment – Limit product being directed into drains and waterways.

### HANDLING

Avoid eye and skin contact or inhalation. Provide ventilation to ensure exposure to dust is minimized. Wash hands before handling food or eating.

### STORAGE

Store in original packaging, in cool dry place. Prevent exposure to high heat and flames.

### EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards – Nuisance dust. 8hr TWA = 10mg/m<sup>3</sup>

Engineering Controls – Local exhaust ventilation is recommended when dust can be released in excess of established airborne limits.

Respiratory Protection – Use an approved mask for fine particle dust. Refer NZ standards.

#### Personal Protective Equipment (PPE)

Skin – General purpose gloves and protective clothing

Eye – Wear safety (full covering) glasses for dusty conditions.

Hygienic Practices – Food and Beverages should not be stored or consumed where this material is in use. Ensure adequate water flow for eye flushing is available and showers for body washing. Wash hands after contact.

## STABILITY AND REACTIVITY

Stability- The product is stable

Instability temperature - Not available

Conditions of Instability - No additional information

Incompatibility - No additional information

Corrosivity - Low Hazard for typical handling

## TOXICOLOGICAL

### Toxicity

Sulphur – Oral LD50 (rat) >5000 mg/kg, Inhalation LC50 (rat) > 9200 mg/kg4h

Potassium – Intraperitoneal LD50 (mouse) = 700 mg/kg Sodium – Intraperitoneal LD50 (mouse) = 4000 mg/kg Carbon – Intravenous LD50 (mouse) = 440 mg/kg

Silica – Intraperitoneal LD50 (rat) = 50 mg/kg, Intravenous LD50 (rat) = 15 mg/kg.

### Routes of Exposure

Inhalation, Ingestion, Eye and Skin

### Health effects from Likely routes of exposure

Inhalation – May cause cough and mild respiratory irritation

Ingestion – Ingestion of large quantities may cause abdominal discomfort

Eye – May cause mild irritation. Skin – May cause mild irritation

### Effects of Overexposure

No information available however little adverse effect unlikely other than prolonged dust inhalation

## DISPOSAL CONSIDERATIONS

Disposal methods and containers – Dispose according to applicable local and government regulations.

Special precautions for landfill or incineration – Consult Local Authority for waste management information

## TRANSPORT INFORMATION

Dangerous Goods – Not Classified as dangerous goods under the LAND TRANSPORT RULE 4500111 2005 5.3. (i) (b) for DANGEROUS GOODS

UN Number – Not Applicable

Proper Shipping Name – Not Applicable Dangerous Goods Class – Not Applicable HazChem

Code – Not Applicable

Packing Group – Not Applicable

Special Precautions – Not Applicable

## REGULATORY INFORMATION

Calcium, Silica, Phosphorous, Carbon, Aluminum, Magnesium, Sodium, Potassium, Sulphur, and Nitrogen are listed in the New Zealand Inventory of Chemicals (NZIoC). Refer ERMA New Zealand.

## **OTHER INFORMATION**

This is a natural occurring substance. Other than mechanical grinding and reforming into granules using water. This product is in its natural state.

The buyer assumes all risk in connection with this product. The buyer assumes all responsibility for ensuring that the product is used in a safe manner in compliance with the applicable health and safety laws: environmental laws; policies and guidelines. No Warranty is expressed or implied. Fertco Limited has developed this information from what the company believes to be accurate and reliable sources and is based on the opinions and facts available at time of preparation