

MATERIAL SAFETY DATA SHEET



G-Phos

Guano Phosphate

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER	
Product Name	G-Phos Guano Phosphate
Product Code	G-Phos
Product Type	Phosphorus / Phosphate Fertiliser (bird derived) with reasonable quantities of Calcium Caronate and Silica
Other Names	G-Phos Guano Phosphate, Natural Guano Phosphate, Hortigro Guano Phosphate, Landco Fertiliser Guano Phosphate, Guano Phosphate
Product Use	Fertiliser for Agriculture, Horticulture, Produce, Viticulture, Gardening, Glass Houses, etc
Importer Name	Hortigro Ltd
Address	164 Manukau Road, Pukekohe 2120
Contact Numbers/info Office/Emergency	09 237 1777 or 0274710625 or tony@hortigro.nz
Origin / Supply	Indonesia
Presentation	G-Phos presents as a light brown / tan coloured product, granular in appearance with no smell.

2. HAZARDS IDENTIFICATION
Non-Hazardous product/substance: Non-dangerous Goods

3. COMPOSITION / INFORMATION ON PRODUCT INGREDIENTS (Specification and Analysis)			
Guano phosphate 100%	10% Phosphorus (minimum)	27% Calcium (approx.)	2.3% Sulphur (approx.)
	1.1% Magnesium (approx.)	Remainder various trace elements and metals	

4. FIRST AID MEASURES	
G-Phos is not recommended for direct human consumption and generally will not cause harm. If swallowed G-Phos will have a dirt taste and sandy, gritty texture when in the mouth. The below precautions reflect worst case scenario's.	
Inhalation	If dust or product is inhaled move to fresh air; if a person is not breathing, then provide artificial respiration; if breathing is difficult provide oxygen. If symptoms persist seek medical attention or dial 111
Ingestion	If product has been ingested and caused unconsciousness, do not give anything by mouth, always seek medical attention or dial 111 if symptoms persist.
Skin	Remove and wash contaminated clothing to rid dust, wash affected skin areas with soap and water, seek medical attention if symptoms persist.
Eyes	If aggravation is caused by product dust, identify any contact lenses, remove and rinse lens, then eyes with running water for at least 15 minutes keeping eyes open. If symptoms persist seek medical attention.

5. FIRE FIGHTING MEASURES	
Suitable Extinguishing Media	Use extinguishing media suitable for the surrounding fire ie chemical powder, water spray, fog, foam however DO NOT use water jet.
Hazardous Combustion Products	No information available. Fire could involve oxides of phosphorus and sulphur but is non-combustible.
Firefighting Equipment	Wear approved self-contained breathing apparatus and full protective clothing
Unusual Fire or Explosion Hazards	Non-Combustible
Hazchem Code	Not Applicable

6. ACCIDENTAL RELEASE MEASURES	
Spills and Disposal	Sweep into a dry container for salvage or disposal. Wash away uncontaminated residue with water
Environment	Aim to limit product being directed into drains and waterways.

7. HANDLING AND STORAGE	
Handling	Comply with safe work practices to avoid eye and skin contact or inhalation. Ensure quality personal hygiene and wash hands before handling food or eating. Be careful and safety conscious when moving product to protect against spillage loss or contamination. Contaminated product should always be disposed off especially in instances where product may be sold or used for certified organic (or similar) use.
Storage	Store G-Phos in original packaging and where needed offer further protection from damp conditions or other contamination. Store in a cool dry area away from adverse weather. Ensure product does not lay in water or be exposed to rainfall. Wet conditions will cause deterioration of the product and likely make it inadequate for intended use, this unless dried again although the form or shape of the product may alter.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION	
Exposure Standards	Nuisance dust. 8hr TWA = 10mg/m3
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
Eye Protection	Wear safety (full covering) glasses for dusty conditions
Skin Protection	General purpose gloves and protective clothing
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. Keep hands washed after contact / use.

9. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	Light Brown / Tan colour
Odour	No Odour
Solubility in Water	Non water-soluble
Freezing / Melting Point	Information not available to confirm freezing or melting points.
Vapour Pressure	Not Applicable
pH	10+
Flash Point	Not Applicable
Flammable Limit - lower	Not Applicable
Flammable Limit - upper	Not Applicable

10. STABILITY AND REACTIVITY	
Chemical Stability	Stable
Incompatible Materials	No Information Available
Hazardous Decomposition Products	No Information Available
Hazardous Polymerization	Will not occur
Conditions to Avoid	Wet / damp weather during exposed application. Do not leave product in machinery overnight in case of condensation which may cause product to break-down and then bind in application equipment.

11. TOXICOLOGICAL INFORMATION	
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 nausea / abdominal discomfort Eye: May cause mild irritation Skin: May cause mild irritation
Effects of overexposure	Prolonged exposure may affect respiration, spleen blood (including changes in white blood cell count)
Existing Conditions Aggravated by Exposure	No information available
Carcinogenicity	No information available

12. ECOLOGICAL INFORMATION	
Ecotoxicity	Unavailable (Biodegradable. Product and degradation products are not toxic)
Mobility	Unavailable (Non Water Soluble)

13. 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

14. 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

15. REGULATORY INFORMATION

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

16. OTHER INFORMATION

Last revision of MSDS	Aug 2017
Prepared by	Hortigro Ltd