

MATERIAL SAFETY DATA SHEET

POTASSIUM NITRATE (13 - 0 - 38)

Standard & Greenhouse Grade

PRODUCT IDENTIFICATION

PRODUCT NAME	MULTI K POTASSIUM NITRATE (13 - 0 -38)	COMPOSITION	Potassium Nitrate 97.5% Heavy metals less than 10ppm
SYNONYM S NAME(S)	Potassium nitrate	FORMULA	KNO ₃
CHEMICAL FAMILY		C.A.S. NUMBER	7757 - 79 -1

HAZARD CLASSIFICATION

Not classified as hazardous according to criteria of Worksafe Australia.
 Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.

Class 5.1 Oxidizing Agent

Poisons Schedule (Aust/Toxic Substance (NZ): N/A - Not Applicable

COMPOSITION/INFORMATION ON INGREDIENTS

Recommended Use: Fertilizer, fertilizer raw material.

Appearance: White crystalline powder. Hygroscopic.

EMERGENCY AND FIRST AID PROCEDURES

IF IN THE EYES:	Immediately flush with plenty of water for at least 30 minutes. In all cases of eye contamination it is a sensible precaution to seek medical advice.
IF ON THE SKIN:	Wash contaminated area with soap or mild detergent and water. If chemical or solution soaks through clothing, remove clothing in area and wash contaminated skin as above. If irritation persists after washing, seek medical attention. If molten: Material should contact the skin and adhere, cool quickly with running water - do not attempt to remove. If irritation occurs seek medical advice.
IF INHALED:	Move to fresh air. Treat symptomatically. Get medical attention promptly.
IF INGESTED:	Rinse mouth with water. Give quantities of water if patient is conscious. Induce vomiting. Seek medical assistance.
Notes to Physician:	

FIRE FIGHTING MEASURES

Specific Hazards: Not combustible, but is a strong oxidising agent. Supports combustion. Increases intensity of a fire.

Further Advice: On its own is not combustible, however will support combustion. Decomposes on heating emitting irritating fumes of nitrogen oxides fumes indicate the presence of toxic oxides of nitrogen. On detection of fire the compartments should be opened up to provide maximum ventilation. Fire fighters to wear self contained breathing apparatus if risk of exposure to products of composition/decomposition. Fires should be fought from a protected location. Keep containers and adjacent areas cool with water spray. If safe to do so, remove containers from the path of fire. A major fire may involve a risk of explosion in the event of contamination or strong confinement. An adjacent detonation may also involve the risk of explosion.

Suitable extinguishing media: Water Spray (Large quantities)

ACCIDENTAL RELEASE MEASURES

Shut off all possible sources of ignition. Close off engine and any electrical equipment. No smoking or naked lights within 50 metres. Move people from the area, keep upwind. Consider initial evacuation distance of 100 metres in all directions. Clear area of all unprotected personnel. Wear protective equipment to prevent skin and eye contamination and inhalation of dust. Contain - prevent contamination of drains and waterways. Sweep up, but avoid generating dust. Collect and seal in properly labelled drums containers for disposal or reuse. Wash area with excess water. The Australian Code for the Transport of Dangerous Goods by Road and Rail identifies this pollutant to the environment. In the event of a spillage notify the local environmental protection authority or emergency services.

HANDLING AND STORAGE

Storage: Store in a cool, well ventilated area, away from sources of heat or ignition. Store away from combustible materials, reducing agents, metal powders, herbicides and fungicides. If using wooden pallets, these must be hardwood and periodically washed down with copious quantities of water to remove all traces of Potassium nitrate. Keep containers closed to prevent absorption of moisture from the atmosphere. Check regularly for spills.

EXPOSURE CONTROLS/PERSONAL PROTECTION

National occupational exposure limits

No value assigned for this specific material by the National Occupational Health and Safety Commission (Worksafe Australia).

Engineering Measures: Avoid generating and inhaling dusts. Use in well ventilated area. Keep containers closed when not in use.

Personal protection equipment: Not in use

Avoid eye contact and repeated or prolonged skin contact. Wear overalls, safety glasses and impervious gloves. Avoid generating and inhaling dusts. If dusts exists, wear dust respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet.

PHYSICAL AND CHEMICAL DATA

SPECIFIC GRAVITY	MELTING POINT (°c) 333 C	Flammability Limits % N/A
VAPOUR PRESSURE (mmHg) Below 1	Boiling Point Decomposes	Auto ignition Temp (c) Not Available
VAPOUR DENSITY N/A	EVAPORATION RATE (BUTYL ACETATE = 1) NA	% Volatility by volume N/A
FLASH POINT (C) N/A	pH (10% water solution)	9.5 – 10.5

STABILITY AND REACTIVITY

STABILITY: Powerful oxidising agent. Will react with organic materials, reducing agents and metal powders. May explode under confinement and temperatures, but not readily detonated. When heated to composition (unconfined) produces nitrous oxide, fumes and water.

TOXICOLOGICAL INFORMATION

MAIN SYMPTOMS: No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms that may arise if the product is mishandled are:

INGESTION: Swallowing can result in nausea, dizziness, weakness, abdominal cramps, vomiting, bloody diarrhea, convulsions and collapse. Ingestion of large quantities may cause nitrate poisoning.

EYE CONTACT: May be an eye irritant.

SKIN CONTACT: Contact with skin may result in irritation. Exposure to molten material may cause skin burns.

INHALATION: Inhalation of dust may result in respiratory irritation.

LONG TERM EFFECTS: No information available for product.

ACUTE TOXICITY/CHRONIC TOXICITY: Oral LD50(rat) unknown

ECOLOGICAL INFORMATION

DISPOSAL CONSIDERATIONS

Refer to State Land Waste Management Authority

TRANSPORT INFORMATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.

UN-No: 1486

Class: 5.1: Oxidizing Agent

Hazchem code: 1[Y]

EPG: 5.1.002

Packing Group: Packing Group 3

Proper Shipping Name: Potassium Nitrate

Segregation Dangerous Goods: Not to be loaded with explosives (class 1), flammable gases (class 2.1), toxic gases (class 2.3), flammable liquids (class 3), flammable solids (class 4.1), spontaneously combustible substances (class 4.2), dangerous when wet substances (class 4.3), organic peroxides (class 5.2), poisonous substances (where the poisonous substances are fire risk substances)(class 6) radioactive substances (class 7), corrosives (class 8), miscellaneous dangerous goods (class 9), where the miscellaneous dangerous goods are fire risk substances), fire risk substances other than dangerous goods, however exemptions may apply.

REGULATORY INFORMATION

Not classified as hazardous according to criteria of Worksafe Australia.

Poisons Schedule (Aust)/Toxic Substance (NZ): N/A - Not Applicable

OTHER INFORMATION

Disclaimer. All data given is derived from the manufacturers of the material and is for information only and unless specifically stated is without warranty. Users should ascertain the suitability of the products for particular applications. Typical figures are subject to usual variations and are given without guarantee.