

# HYGROTECH

## SUSTAINABLE SOLUTIONS

### MATERIAL SAFETY DATA SHEET

No:  
Date issued: December 2014  
Page 1 of 4

#### COMPANY DETAILS

Name: HYGROTECH PROPERTIES (PTY) LTD	Emergency telephone no. +27 12 545 8000
Address: P O Box 17220, PRETORIA NORTH, 0116 SOUTH AFRICA	e-mail: registrations@hygrotech.co.za
Tel: +27 12 545 8000	Fax: +27 12 545 8088

#### 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name: HYPERFEED	Chemical abstract no: 7757-79-1/143-66-8
Chemical family: Potassium Nitrate	NIOSH no. 231-818-8/205-605-5
Chemical name:	Hazchem code:
Synonyms: Nitre, salpetre – Nitric acid potassium salt	UN no: 1486

#### 2. COMPOSITION

Hazardous components:	Potassium Nitrate, Urea
EEC classification:	
R Phases:	R8, R22, R36, R38

#### 3. HAZARDS IDENTIFICATION

Main hazard:	Strong oxidizer; contact with combustible materials cause fire.
Flammability:	
Chemical hazard:	
Biological hazard:	
Reproductive hazard:	
Eye effects:	Irritation
Health effects – skin:	Mechanical irritation.
Health effects – ingestion:	Nausea, vomiting, diarrhoea.
Health effects – inhalation:	Respiratory irritation, convulsions, dyspnea, death.
Reproductive toxicity & Embriotoxicity:	Not determined.
Mutagenicity:	Not determined.
Teratogenicity:	Not determined.

<b>4. FIRST AID MEASURES</b>	
<b>INHALATION:</b>	Remove to fresh air, if not breathing give artificial respiration, seek medical attention.
<b>CONTACT WITH SKIN:</b>	Remove contaminated clothing immediately; wash skin immediately with plenty of soap and water for 15 min; if irritation persists, consult doctor.
<b>CONTACT WITH EYES:</b>	Immediately flush with plenty of water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eyes and lids with water. If irritation persists, consult doctor.
<b>INGESTION:</b>	DO NOT induce vomiting give 2-4 cups of milk/water, consult a doctor.

<b>5. FIRE-FIGHTING MEASURES</b>	
<b>EXTINGUISHING METHODS:</b>	Cool container with lots of water even after fire. Do not use dry chemicals, carbon dioxide, halon or foam. <b>ONLY USE WATER.</b>
<b>SPECIAL EXPOSURE HAZARDS:</b>	Gives off toxic gases when on fire. Material is a strong oxidizer and is not compatible with combustible materials. Containers may explode due to heat of fire.
<b>SPECIAL PROTECTIVE EQUIPMENT:</b>	Wear protective clothing to protect eyes, skin and face; also use breathing apparatus against toxic gases while fighting fire.

<b>6. ACCIDENTAL RELEASE MEASURES</b>	
<b>PERSONAL PRECAUTIONS:</b>	Avoid contact with eyes and skin. When using the product, wear rubber gloves and safety glasses. Wash hands after use. After each day's use, wash gloves, glasses and contaminated clothing.
<b>ENVIRONMENTAL PRECAUTIONS:</b>	Do not contaminate streams, rivers or waterways with the chemical or used containers.
<b>SMALL SPILLS:</b>	Use personal protective equipment as outlined above.  Sweep up material. Avoid generating dust. Wash area afterwards.
<b>LARGE SPILLS:</b>	

<b>7. HANDLING AND STORAGE</b>	
<b>SUITABLE MATERIAL:</b>	Plastic containers.
<b>HANDLING/STORAGE PRECAUTIONS:</b>	Store in tightly closed, original container in a cool, dry, well-ventilated area out of reach of children and animals. Do not store near combustible materials, in direct sunlight or near heat sources. Keep away from reducing agents. Do not re-use the container for any purpose.

<b>8. EXPOSURE CONTROLS / PERSONAL PROTECTION</b>	
<b>Occupational exposure limits:</b>	
<b>Engineering control measures:</b>	Store area to be well ventilated and cool.
<b>Personal protection - respiratory:</b>	
<b>Personal protection – hand:</b>	Rubber gloves.
<b>Personal protection - eye:</b>	Eye protection.
<b>Personal protection - skin:</b>	Overall clothing.
<b>Other protection:</b>	Boots

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>PHYSICAL FORM</b>	
Appearance:	White powder.
pH:	
Odour:	Odourless
Boiling point:	No information found.
Melting point:	No information found.
Flash point:	N/A
Flammability:	Non-flammable
Auto flammability:	
Explosive properties:	
Oxidizing properties:	Strong oxidizer.
Vapour pressure:	
Density:	
Specific gravity:	
Solubility – water:	Completely soluble.
Solubility – solvent:	
Solubility – coefficient:	
Neurotoxicity:	

## 10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:	Excessive heating.
MATERIALS TO AVOID:	Incompatible materials, combustible materials, reducing agents.
HAZARDOUS DECOMPOSITION PRODUCTS:	Nitrogen oxides, irritating and toxic fumes.

## 11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:	Toxic fumes from fire.
SKIN AND EYE CONTACT:	Oral (rabbit) LD <sub>50</sub> = 1901 mg/kg, Oral (rat) LD <sub>50</sub> = 3750 mg/kg Irritation to eyes and skin.
CARCINOGENICITY:	Nitric acid, potassium salt.
CHRONIC TOXICITY:	
MUTAGENICITY:	
REPRODUCTIVE HAZARDS:	

## 12. ECOLOGICAL INFORMATION

Aquatic toxicity - fish:	No information found.
Aquatic toxicity - daphnia:	No information found.
Aquatic toxicity - algae:	No information found.
Aquatic toxicity – plants:	No information found.
Biodegradability:	No information found.
Bio-accumulation:	No information found.
Mobility:	No information found.
German wgk:	No information found.

<b>13. DISPOSAL CONDITIONS</b>	
<b>Disposal methods:</b>	Triple rinse empty containers and perforate before disposal. Do not dispose of undiluted chemicals on-site. Empty containers and product should not be burnt. Do not contaminate waterways, foodstuffs, feed or seed with the product or the used container.
<b>Disposal of packaging:</b>	See above.

<b>14. TRANSPORT INFORMATION</b>	
UN No.	1486
Substance identity no.	7757-79-1 / 143-66-8
ADR/RID class:	Class 5.1, Group III
ADR/RID hazard identity no:	
IMDG – shipping name:	Potassium nitrate
IMDG – class:	Class 5.1
IMDG – packaging group:	Group III
IMDG – marine pollutant:	
IMDG – EMS no:	
IMDG – MFAG table no:	
IATA – shipping name:	
IATA – class:	
IATA – subsidiary risk(s):	
ADNR – class:	
UK – description:	
UK – emergency action class:	
UK – classification	
Tremcard no:	

<b>15. REGULATORY INFORMATION</b>	
EEC hazard classification:	
Risk phases:	R8, R22, R36, R38
Safety phases	S7, S16, S17, S26, S36, S41
National legislation:	

<b>16. OTHER INFORMATION</b>	
All information given in this data sheet is to the best of our knowledge. Because of the nature of the product, the user assumes all risk with respect to it. The data in this safety data sheet refer to the above product, but may not be valid for combination with other products or any other process. This data shall describe our product referring to questions of safety, but not declaration of quality or properties.	