Section 1 - Identification of Chemical Product and Company

Chemical Nature: Fertiliser
Trade Name: **POTASSIUM NITRATE GREENHOUSE GRADE (13-0-38)**
Other Name: **Multi K Greenhouse Grade**
Product Use: Fertiliser (soil nutrient)
Supplier: **Barmac, a division of Amgrow Pty Ltd**
Unit B2a, 3-29 Birnie Avenue
Lidcombe NSW 2141
Phone: (02) 9395 1200 (Office hours), Fax: (02) 9395 1241
www.barmac.com.au
Creation Date: **December 2016** (valid for 5 years from this date)

Section 2 - Hazards Identification

Statement of Hazardous Nature

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF SWA

CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO THE ADG CODE, IATA & IMDG/IMSBC CRITERIA
Risk Phrases: Not Hazardous - No criteria found.
Safety Phrases: Not Hazardous - No criteria found.
SUSMP Classification: Not scheduled
ADG Classification: None allocated. Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.
UN Number: 1486
DG Class: 5.1 **Packing Group:** III **Hazchem Code:** 1Y

GHS Signal word: WARNING

HAZARD STATEMENTS

H272: May intensify fire; oxidiser
H315: Causes skin irritation
H319: Causes serious eye irritation
H335: May cause respiratory irritation

PRECAUTION STATEMENTS
PREVENTION

P102: Keep out of reach of children.
P210: Keep away from heat, hot surfaces, open flames, sparks. No smoking
P220: Keep/Store away from clothing and combustible materials.
P221:Take any precaution to avoid mixing with combustibles.
P261: Avoid breathing dust
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves, eye protection/face protection.

RESPONSE

P264: Wash hands, forearms and face thoroughly after handling.
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P304+P340: IF INHALED: Remove person to fresh air and keep 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.

P312: Call a POISON CENTER/ doctor if you feel unwell.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P362: Take off contaminated clothing and wash before reuse

STORAGE

P403+P233: Store in a well ventilated place. Keep container tightly closed.

DISPOSAL

P501: Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

Emergency Overview

Physical Description & colour: White crystalline/powder solid
Odour: No odour
Major Health Hazards: No significant risk factors have been found for this product in normal use.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc (%)
Potassium Nitrate	7757-79-1	100

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible

Section 4 - First Aid Measures

General Information: You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia and is available at all times. Have this SDS with you when you call.
Inhalation: Remove victim to fresh air. Seek medical attention promptly.
Skin Contact: Remove contaminated clothing and wash skin thoroughly with soap and water. If irritation persists after washing, seek medical attention. If molten material should contact skin and adhere, cool quickly with running water – do not attempt to remove. Launder clothing before reuse.
Eye Contact: Hold eye open and flush gently with copious amounts of water for 15 minutes and seek medical attention.
Ingestion: If swallowed, immediately rinse mouth out with water. Give copious quantities of water to drink. Contact Poisons Information Centre or doctor immediately. Do not induce vomiting.
Advice to Doctor: Treat symptomatically

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: Not combustible but is a strong oxidising agent. Supports combustion. Increases intensity of a fire. A major fire may involve a risk of explosion.
Extinguishing Media: Water Spray (large quantities)
Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. Fire fighters to wear self contained breathing apparatus. Fires should be fought from a protected location
Flash point: Non Flammable
Flammability Limits: Not applicable
Auto ignition temperature: Not available
Hazchem Code: 1Y
Further Advice: In the event of a fire, keep containers and adjacent areas cool with water spray and if safe to do so remove bags or containers away from path of fire.
Fire Decomposition: Decomposes on heating emitting irritating fumes of toxic nitrogen oxides

Section 6 - Accidental Release Measures

Spillage: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all possible sources of ignition**,** including engines and any electrical

equipment. No smoking or naked lights within 50 metres. Move containers from spill area. Use spark-proof tools and explosion-proof equipment
No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8). As a minimum, wear overalls, goggles and gloves.
Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
In the event of a major spill, prevent spillage from entering drains or water courses. Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recovered product into labelled containers for recycling or salvage, and dispose of promptly. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 - Handling and Storage

Handling: Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.
Storage: Store in cool, dry, well ventilated area removed from combustible materials, herbicides, fungicides and foodstuffs. Ensure containers are labelled, protected from physical damage and sealed when not in use. Keep from extreme heat and open flames and make sure that the product does not come into contact with substances listed under "Materials to avoid" in Section 10. Bagged fertilisers should be stored under cover and out of direct sunlight.

Section 8 - Exposure Controls and Personal Protection

Exposure Limits	TWA (mg/mP3P)	STEL (mg/mP3P)	ADI (mg/Kg/day)	NOEL (mg/Kg/day)

Exposure limits have not been set by SWA for any ingredients in product. The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. There is a blanket limit of 10mg/m^3 for dusts or mists when limits have not otherwise been established. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, 31st March 2012

Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:
Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.
No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.
Ventilation: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. Avoid high dust concentration and provide local exhaust ventilation where necessary.
Eye Protection: Eye protection such as protective glasses or goggles is recommended when using this product.
Skin Protection: Wear chemical-resistant, impervious gloves or gauntlets and long sleeves when using this product to protect against skin irritation
Respirator: Use P2 type canister respirator where high concentrations of airborne dust is present
Provision of eye wash facilities and safety shower should be provided
Wash hands before eating, drinking, smoking or going to toilet, launder protective clothing before re-use.

Section 9 - Physical and Chemical Properties:

Physical Description & colour: White crystalline/powder solid
Odour: No odour

Boiling Point: Not applicable.
Melting Point: 334°C
Decomposition Temperature: No data
Flash Point: Non-flammable
Vapour Pressure: <0.1kPa (<1mm Hg) at 20°C
Density: 1.1 gm/cm3
Solubility: 31.6g per 100mL water at 20°C (water)
pH: 9-10.5
Auto ignition temp: Not applicable
Vapour Density: Not applicable.
Evaporation Rate: Not applicable.

Section 10 - Stability and Reactivity

Stability: The product is stable under normal conditions of storage and use
Conditions to Avoid: Heat, flames.
Incompatibilities: Reactive with reducing agents, organic materials, acids. Slightly reactive to reactive with moisture.
Fire Decomposition Products: Oxides of nitrogen, oxides of potassium
Polymerisation: This product is unlikely to undergo polymerisation processes.

Section 11 - Toxicological Information

Potential Health Effects

Inhalation: If product in high concentrations of airborne dust, prolonged contact may cause irritation to the nose and throat. Long term exposure to high concentrations could cause cough and mild bronchitis.
Skin Contact: Irritating to skin. Prolonged and repeated use may result in dermatitis or skin irritations
Eye Contact: Irritating to eyes. Exposure may result in irritation, pain and redness
Ingestion: Can cause nausea, dizziness, considerable gastric upset, diarrhoea, vomiting. Ingestion of large quantities may cause nitrate poisoning.
Carcinogen Status:
SWA: No significant ingredient is classified as carcinogenic by SWA
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: No significant ingredient is classified as carcinogenic by IARC.
Toxicity to Animals:
Rat 3750 mg/kg LD50 Oral -
Rabbit 1901 mg/kg LD50

Classification of Hazardous Ingredients

Ingredient Risk Phrases

No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations

Section 12 - Ecological Information

Acute LC50 490 mg/L Daphnia - 48 hours
Acute LC50 188 mg/L Fish - 96 hours
Acute LC50 180 mg/L Fish - 96 hours
Environment: Avoid contamination of waterways.
Persistence/degradation: Will persist for weeks in soil, but is a plant nutrient.
Mobility: Readily leaches, especially the nitrate component.
Bioaccumulative potential: Unknown but probably low

Section 13 - Disposal Considerations

Disposal: There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. The Hierarchy of Controls seems to be common - the user should investigate: Reduce, Reuse, and Recycle and only if all else fails should disposal be considered. Special help is available for the

disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 http://www.chemclear.com.au/ and for help with the disposal of empty drums, contact DrumMuster http://www.drummuster.com.au/

Section 14 - Transport Information

ADG Code: This product is classified as a Dangerous Good. Also Dangerous Good according to criteria of IMDG and IATA
DG Class: 5.1 Oxidising Agent
UN no: 1486
Packing Group: III
Proper Shipping Name: POTASSIUM NITRATE
Segregation: Not to be loaded with: Class 1, Class 2.1, Class 2.3, Class 3, Class 4.1, Class 4.2 –Class 4.3, Class 5.2, Class 6 – where substances fire risk, Class 7, Class 8, Class 9 – if fire risk substances

Section 15 - Regulatory Information

Poison Schedule: A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)
AICS: All of the significant ingredients in this formulation are to be found in the public AICS Database.

Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail	**IMDG**	International Maritime Dangerous Good
AICS	Australian Inventory of Chemical Substances	**IMSBC**	International Maritime Solid Bulk Code
CAS number	Chemical Abstracts Service Registry Number	**NTP**	National Toxicology Program (USA)
Hazchem Number	Emergency action code of numbers and letters that provide information to emergency services especially fire-fighters	**SUSMP**	Standard for the Uniform Scheduling of Medicines & Poisons
IARC	International Agency for Research on Cancer	**SWA**	Safe Work Australia (formerly ASCC and NOHSC)
IATA	International Air Transport Authority	**UN Number**	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE. IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.
This SDS is prepared in accord with the SWA document “National Code of Practice for the Preparation of Material Safety Data Sheets” 2nd Edition [NOHSC:2011(2003)]