



Section 1 - Identification of Material and Supplier

Supplier name: Paton Fertilizers
Address: 126 Andrews Rd, Penrith, NSW, 2751
Telephone: (02) 4729 2888
Fax: (02) 4729 3037
Website: www.paton.com.au
Synonyms: Poly coated, sulfur coated Urea
Product Use: Slow Release Fertiliser

Section 2 - Hazards Identification

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN Number: None allocated **Pkg Group** None Allocated

Hazchem Code: None Allocated

SUSDP Classification: None allocated.

Risk Phrases: Not Hazardous according to criteria of NOHSC

Safety Phrases: Not Hazardous according to criteria of NOHSC

Emergency Overview

Physical Description & colour: Yellow-tangerine, orange and/or blue-green granules

Odour: Odourless

Major Health Hazards: No significant risk factors have been found for this product in normal use.

Potential Health Effects

Inhalation: No appreciable dust with this product, however may cause mild irritation to nose throat or lungs if product in high concentrations of airborne dust.

Skin Contact: May cause moderate irritation

Eye Contact: May cause moderate irritation

Ingestion: Low toxicity but may cause headache, nausea and vomiting if ingested in large quantities.

Carcinogen Status:

NOHSC: No significant ingredient is classified as carcinogenic by NOHSC.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: No significant ingredient is classified as carcinogenic by IARC.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc.%	TWA (mg/m3)	STEL (mg/m3)
Urea	57-13-6	70-91	not set	not set
Sulfur	7704-34-09	5-29	not set	not set
Polyurethane Coating	n/a	0.5-5.5	not set	not set

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

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. 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.

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 MSDS with you when you call.

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Inhalation: First Aid is not generally required, however if irritation is experienced to nose. Throat or lungs, remove victim to fresh air.

Skin Contact: First Aid not normally required. Remove contaminated clothing and wash thoroughly with soap and water.

Eye Contact: Hold eye open and flush gently with copious amounts of water for 15 minutes. Seek medical attention if irritation develops.

Ingestion: If swallowed, immediately rinse mouth out with water. Give water to drink. For advice contact Poisons Information Centre or doctor.

Advice to Doctor: Treat symptomatically

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. (Sulfur dust produced by possible rough handling of product may form explosive mixture in air at concentrations 35mg/m³ – 1400mg/m³ but this is unlikely in normal use) Fire decomposition may give rise to noxious fumes – cyanuric acid, cyanic acid, biuret, ammonia, hydrogen cyanide, carbon dioxide, sulfur oxides & nitrogen oxides

Extinguishing Media: Not Flammable. Use extinguishing media suited to burning materials.

Fire Fighting: Wear full protective clothing and self contained breathing apparatus. If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: Not applicable

Upper Flammability Limit: Not applicable

Lower Flammability Limit: Not applicable

Auto ignition temperature: Not applicable - does not burn.

Flammability Class: Does not burn.

Hazchem Code: None Allocated

Section 6 - Accidental Release Measures

Spillage: Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. 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 area removed from foodstuffs, combustible materials, herbicides and fungicides. Ensure containers are labelled, protected from physical damage and sealed when not in use. Do not allow to come into contact with water either from rain, condensation or the surface on which it is stored. Bagged fertilisers should be stored under cover and out of direct sunlight (which degrades polywoven bags) If stored in the open, do so for short periods only and cover with a tarpaulin. If stacking is necessary, bulk bags should be stored in a stable manner, preferably in a pyramidal style. Bulk bags should not be stacked more than two high for bags containing 1000 kg or more, or more than four high for bags containing up to 500kg. The pallet Capacity Rating (Design Weight) should not be exceeded on the bottom tier for other packs.

Section 8 - Exposure Controls and 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**.

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Exposure Limits	TWA (mg/m ³)	STEL (mg/m ³)	ADI (mg/Kg/day)	NOEL (mg/Kg/day)
Urea	not set	not set	not set	not set
Sulfur	not set	not set	not set	not set

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 exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. A TWA has not been established by Worksafe Australia for any of the major ingredients in this product. There is a blanket limit of 10mg/m³ for dusts or mists when limits have not otherwise been established. The nature of this product makes it unlikely that this level will be approached in normal use. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, Dec 2003.

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: Avoid high dust concentration and provide local exhaust ventilation where necessary.

Eye Protection: Eye protection such as protective glasses or goggles is recommended

Skin Protection: Not normally required for this product but use of gloves is generally good safe work practice.

Respirator: Use P2 type canister respirator where high concentrations of airborne dust is present

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Yellow-tangerine, orange and/or blue-green granules
Odour:	Odourless
Melting Point:	135°C (Urea) 136.7°C (Sulfur)
Decomposition Temperature:	>130°C Urea, >200°C Coating.
Flash Point:	Non-flammable
Vapour Pressure:	Below 1mm Hg
Specific Gravity:	1.3 -1.5
Bulk Density:	0.80 Kg/L
Water Solubility:	Very slowly soluble, coating Insoluble
pH:	7.2
Auto ignition temp:	Not applicable

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions.

Conditions to Avoid: Heat, flames.

Incompatibilities: Ammonium nitrate or fertiliser containing same

Fire Decomposition Products: Fire decomposition may give rise to noxious fumes – cyanuric acid, cyanic acid, biuret, ammonia, hydrogen cyanide, carbon dioxide, sulfur oxides & nitrogen oxides

Polymerisation: This product is unlikely to undergo polymerisation processes.

Section 11 - Toxicological Information

Routes of Entry: Inhalation, ingestion.

Toxicity to Animals: Low toxicity

For Urea: Oral LD50 values for rats were 14 300 mg/kg body weight for females and 15 000 mg/kg body weight for males.

In mice, oral LD50 values were 13 000 mg/kg body weight for females and 11 500 mg/kg body weight for males.

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans:

Irritation

Urea has been used for some time at concentrations up to 10% in creams and ointments to treat dry skin. One human study showed that urea was slightly irritating at 7.5% and markedly irritating at 30% when applied to skin.

Effects from Repeated Exposure

Long term follow-up studies have indicated that the substance is non-allergenic and virtually free of side effects. It is assumed that humans are well adapted to deal with urea even in high doses. This is supported

by clinical evidence in cases where patients have received long term urea treatment for endocrine disorders. One patient is reported to have suffered no side effects following treatment with urea at levels of about 470 mg/kg body weight/day for five years.

Section 12 - Ecological Information

Contamination of waterways in large concentrations may cause fish kill Large spills may cause illness in animals. However, the OECD SIDS report (1996) concluded that: "Based on the available information, the initial assessment gave no concern for the human health and the environment."

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 not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

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 Drugs and Poisons (SUSDP)

AICS: All of the significant ingredients in this formulation are to be found in the public AICS Database.

Section 16 - Other Information

This MSDS 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
AICS	Australian Inventory of Chemical Substances
ASCC	Office of the Australian Safety and Compensation Council
CAS number	Chemical Abstracts Service Registry Number
Hazchem Number	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOHSC	National Occupational Health & Safety Commission
NTP	National Toxicology Program (USA)
SUSDP	Standard for the Uniform Scheduling of Drugs & Poisons
UN Number	United Nations Number

THIS MSDS 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 MSDS 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 MSDS is prepared in accord with the ASCC document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition [NOHSC:2011(2003)]

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MATERIAL SAFETY DATA SHEET