



Safety Data Sheet

Product Name **TOPFOLIAR**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name INCITEC PIVOT LIMITED
Address 70 Southbank Boulevard, Southbank, Victoria, AUSTRALIA, 3006
Telephone (03) 8695 4400
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Emergency 1800 033 111 (All Hours)
Web Site <http://www.incitecpivot.com.au/>
Synonym(s) 81432 - PRODUCT CODE • FERTILISER SOLUTION
Use(s) FERTILISER
SDS Date 20 Apr 2009

2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA

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

UN No.	None Allocated	DG Class	None Allocated	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated	Hazchem Code	None Allocated	EPG	None Allocated

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
POTASSIUM NITRATE	K-N-O3	7757-79-1	10-29%
COPPER (II) SULPHATE	Cu-S-O4	7758-98-7	<1%
ZINC SULPHATE	Zn-S-O4	7733-02-0	<1%
NON HAZARDOUS INGREDIENTS	Not Available	Not Available	>60%
UREA	(NH ₂) ₂ CO	57-13-6	<29%

4. FIRST AID MEASURES

Eye If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

Inhalation If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

Skin If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Ingestion For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once).

Advice to Doctor Treat symptomatically

First Aid Facilities Eye wash facilities should be available.

5. FIRE FIGHTING MEASURES

Flammability	Non flammable. May evolve toxic gases if strongly heated.
Fire and Explosion	No fire or explosion hazard exists.
Extinguishing	Prevent contamination of drains or waterways.
Hazchem Code	None Allocated

6. ACCIDENTAL RELEASE MEASURES

Spillage	If spilt (bulk), use personal protective equipment. Contain spillage, then cover / absorb spill with non-combustible absorbant material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Prevent spill entering drains or waterways. CAUTION: Spill site may be slippery.
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7. STORAGE AND HANDLING

Storage	Store in a cool, dry, well ventilated area, removed from combustible materials and reducing agents.
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.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Stds	COPPER (II) SULPHATE ES-TWA: 1 mg/m3 (Copper dusts/ mists)
Biological Limits	No biological limit allocated.
Engineering Controls	Avoid inhalation. Use in well ventilated areas.
PPE	Wear splash-proof goggles and rubber or PVC gloves. When using large quantities or where heavy contamination is likely, wear: coveralls.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	BLUE GREEN LIQUID	Solubility (Water)	SOLUBLE
Odour	SLIGHTLY ACIDIC ODOUR	Specific Gravity	1.2
pH	3.5 to 4.5	% Volatiles	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE	Flammability	NON FLAMMABLE
Vapour Density	NOT AVAILABLE	Flash Point	NOT RELEVANT
Boiling Point	NOT AVAILABLE	Upper Explosion Limit	NOT RELEVANT
Melting Point	NOT AVAILABLE	Lower Explosion Limit	NOT RELEVANT
Evaporation Rate	NOT AVAILABLE		

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended conditions of storage.
Conditions to Avoid	Avoid heat, sparks, open flames and other ignition sources.
Material to Avoid	Incompatible with combustible materials, and reducing agents (eg. amines).
Decomposition	May evolve toxic gases if heated to decomposition.
Hazardous Reactions	Polymerization is not expected to occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Low to moderate toxicity. Over exposure to high levels of nitrates (eg. by ingestion) has the potential to cause methaemoglobinemia, with symptoms of shortness of breath and blue tinge to lips and skin. However, due to the product application, over exposure is not anticipated with normal use.
Eye	Low to moderate irritant. Contact may result in irritation, lacrimation, pain and redness.
Inhalation	Low irritant. Over exposure may result in irritation of the nose and throat, with coughing.
Skin	Low to moderate irritant. Prolonged or repeated contact may result in irritation, rash and dermatitis.
Ingestion	Ingestion considered unlikely. Ingestion may result in gastrointestinal irritation, nausea, vomiting, abdominal pain and diarrhoea. Large quantities may cause cyanosis (blue-grey skin discolouration) and methaemoglobinaemia (reduced capacity of haemoglobin to transport oxygen in blood).
Toxicity Data	<p>POTASSIUM NITRATE (7757-79-1) LD50 (Ingestion): 1901 mg/kg (rabbit) LDLo (Intravenous): 100 mg/kg (cat) TDLo (Ingestion): 598 mg/kg (rat - 1-22 days pregnant)</p> <p>COPPER (II) SULPHATE (7758-98-7) LD50 (Ingestion): 300 mg/kg (rat) LDLo (Ingestion): 50 mg/kg (human) TDLo (Ingestion): 150 mg/kg (child)</p> <p>ZINC SULPHATE (7733-02-0) LD50 (Ingestion): 245 mg/kg (mouse) LD50 (Intraperitoneal): 196 mg/kg (rat) LD50 (Intravenous): 23300 ug/kg (mouse) LDLo (Intravenous): 23 mg/kg (rabbit) LDLo (Subcutaneous): 1500 ug/kg (mouse) TDLo (Ingestion): 106 mg/kg (human)</p> <p>UREA (57-13-6) LD50 (Ingestion): 8471 mg/kg (rat) LD50 (Intraperitoneal): > 5000 mg/kg (rat) LD50 (Intravenous): 4600 mg/kg (mouse) LD50 (Subcutaneous): 8200 mg/kg (rat) LDLo (Intraperitoneal): 6608 mg/kg (mouse) LDLo (Intravenous): 4800 mg/kg (rabbit) LDLo (Subcutaneous): 3000 mg/kg (rabbit)</p>

12. ECOLOGICAL INFORMATION

Environment	Plant nutrients may be beneficial to plants at low levels, however high levels may cause reduced growth or burns in sensitive species. Excess may be washed through soil to waterways. Nutrients released to waterways may cause algal blooms, with potential for toxic effects on aquatic organisms.
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13. DISPOSAL CONSIDERATIONS

Waste Disposal	Dispose of to an approved landfill site. Contact the manufacturer for additional information.
Legislation	Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

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

Shipping Name	None Allocated				
UN No.	None Allocated	DG Class	None Allocated	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated	Hazchem Code	None Allocated	EPG	None Allocated

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 chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Additional Information	EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES: Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between
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shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

ABBREVIATIONS:

ADB - Air-Dry Basis.
BEI - Biological Exposure Indice(s)
CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.
CNS - Central Nervous System.
EINECS - European INventory of Existing Commercial chemical Substances.
IARC - International Agency for Research on Cancer.
M - moles per litre, a unit of concentration.
mg/m³ - Milligrams per cubic metre.
NOS - Not Otherwise Specified.
NTP - National Toxicology Program.
OSHA - Occupational Safety and Health Administration.
pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm - Parts Per Million.
RTECS - Registry of Toxic Effects of Chemical Substances.
TWA/ES - Time Weighted Average or Exposure Standard.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Report Status

This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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End of Report