

**Section 1 - Identification of Material and Supplier**

**Chemical Nature:** Urea plus mineral acids  
**Trade Name:** Smart System Zinc  
**Product Use:** Soil amendment  
**Supplier:** Barmac (A division of Amgrow Australia Pty Ltd)  
 Unit B2a, 3-29 Birnie Avenue  
 Lidcombe NSW 2141  
 Phone: (02) 9395 1200 (Office hours), Fax: (02) 9395 1241  
 www.amgrow.com.au

**Creation Date:** January 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**

**NOT A DANGEROUS GOOD ACCORDING TO THE ADG CODE, IATA OR 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:** None allocated

**GHS Signal word:** **NONE. Not hazardous.**

**PREVENTION**

P102: Keep out of reach of children.

P262: Do not get in eyes, on skin, or on clothing.

P281: Use personal protective equipment as required.

**RESPONSE**

P353: Rinse skin or shower with water.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P370+P378: Not combustible. Use extinguishing media suited to burning materials.

**STORAGE**

P402+P404: Store in a dry place. Store in a closed container.

**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:** Clear liquid

**Odour:** No appreciable odour

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

**Section 3 - Composition/Information on Ingredients**

<b>Ingredients</b>	<b>CAS No</b>
Urea	57-13-6
Mineral Acid Blend	various
Zinc Sulphate	7733-02-0

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

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## 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 (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

**Inhalation:** Mists may be irritating to the respiratory tract. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

**Skin Contact:** Wash immediately with soap and water. Launder clothes before re-use

**Eye Contact:** Flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.

**Ingestion:** If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or doctor.

## 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.

Fire decomposition products from this product maybe toxic and are likely to be irritating if inhaled.

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

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade.

**Flash point:** Does not burn.

**Upper Flammability Limit:** Does not burn.

**Lower Flammability Limit:** Does not burn.

**Auto ignition temperature:** Not applicable - does not burn.

**Flammability Class:** Does not burn.

## Section 6 - Accidental Release Measures

**Accidental release:** For minor spills, clean up, rinsing to sewer and put empty container in garbage. Although no special protective clothing is normally necessary because of occasional minor contact with this product, it is good practice to wear impermeable gloves when handling chemical products. In the event of a major spill, prevent spillage from entering drains or water courses and call emergency services. This material may be suitable for approved landfill.

## 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. 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. Product is hygroscopic

## 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<sup>3</sup> 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, 31<sup>st</sup> 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**.

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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 mist concentration and provide local exhaust ventilation where necessary.

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

**Skin Protection:** Wear 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 recommended.

Wash hands before eating, drinking, smoking or going to toilet, launder protective clothing before re-use.

## Section 9 - Physical and Chemical Properties:

<b>Physical Description &amp; colour:</b>	Clear aqueous solution
<b>Odour:</b>	No appreciable odour.
<b>Boiling Point:</b>	100°C approx
<b>Freezing/Melting Point:</b>	0°C approx
<b>Volatiles:</b>	approx 28%
<b>Vapour Pressure:</b>	Not relevant
<b>Vapour Density:</b>	Not relevant
<b>Density:</b>	1.34-1.41 g/cm <sup>3</sup>
<b>Water Solubility:</b>	Soluble
<b>pH:</b>	approx 4
<b>Volatility:</b>	Negligible at normal ambient temperatures.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	Not relevant.
<b>Coeff Oil/water Distribution:</b>	No data
<b>Viscosity:</b>	Not relevant.
<b>Auto ignition temp:</b>	No data

## Section 10 - Stability and Reactivity

**Reactivity:** Stable and non-reactive under normal conditions, however will react with strong alkalis

**Conditions to Avoid:** Heat, Flames

**Incompatibilities:** strong alkaline substances, reducing agents

**Fire Decomposition Products:** Toxic fumes may evolve

**Polymerisation:** This product is unlikely to undergo polymerisation processes.

## Section 11 - Toxicological Information

**Target Organs:** There is no data to hand indicating any particular target organs.

### Potential Health Effects

**Inhalation:** Product is irritating if inhaled

**Skin Contact:** Product is irritating to skin.

**Eye Contact:** This product will irritate eyes.

**Ingestion:** Significant oral exposure is considered to be unlikely. This product, while believed to be not harmful, is likely to cause headache and gastric disturbance such as nausea and vomiting if ingested in significant quantities. However, this product may be irritating to mucous membranes.

### 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.

### Classification of Hazardous Ingredients

Ingredient	Risk Phrases
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No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.

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## Section 12 - Ecological Information

Contains a substance which causes risk of hazardous effects to the environment. Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

## Section 13 - Disposal Considerations

**Disposal:** 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. This product can usually be used for its intended purpose unless contaminated by substances that make it unsuited.

## Section 14 - Transport Information

**UN Number:** This product is not classified as a Dangerous Good by ADG, IATA or IMDG/IMSBC criteria. No special transport conditions are necessary unless required by other regulations.

## Section 15 - Regulatory Information

**AICS:** All of the significant ingredients in this formulation are compliant with NICNAS regulations.

## Section 16 - Other Information

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

### Acronyms:

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

*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 "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)

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## SAFETY DATA SHEET