**Section 1 - Identification of Chemical Product and Company**

Chemical Nature: Liquid Fertiliser  
Trade Name: FERTECH SPECIAL FEX  
Product Use: Liquid 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.amgrow.com.au

This Revision: May 2017 (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 reclaming is not possible, use a commercial waste disposal service.

**Emergency Overview**  
Physical Description & colour: Purple/Blue liquid  
Odour: Slight odour  
Major Health Hazards: No significant risk factors have been found for this product in normal use.

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

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Conc (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea</td>
<td>57-13-6</td>
<td></td>
</tr>
<tr>
<td>Ferrous Sulfate</td>
<td>7782-63-0</td>
<td></td>
</tr>
<tr>
<td>Manganese Sulphate</td>
<td>7785-87-7</td>
<td>100</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td></td>
</tr>
</tbody>
</table>

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 MSDS with you when you call.

**Inhalation:** If symptoms are experienced, remove victim to fresh air. Seek medical attention if symptoms persist.

**Skin Contact:** Remove contaminated clothing and wash thoroughly with soap and water. Seek medical attention if irritation develops. Launder clothing before reuse.

**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. Contact Poisons Information Centre or doctor. Do not induce vomiting.

**Advice to Doctor:** Treat symptomatically

**Section 5 - Fire Fighting Measures**

**Fire and Explosion Hazards:** Non-flammable. No fire or explosion hazards exist.

**Decomposition products:** May evolve oxides of sulphur and manganese when heated to decomposition

**Extinguishing Media:** Media to suit materials involved in fire.

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

**Flash point:** Non Flammable

**Upper Flammability Limit:** Not applicable

**Lower Flammability Limit:** Not applicable

**Auto ignition temperature:** Not applicable

**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. Absorb onto sand, vermiculite or other absorbent material. 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.

**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.

**Section 8 - Exposure Controls and Personal Protection**

<table>
<thead>
<tr>
<th>Exposure Limits</th>
<th>TWA (mg/m³P3)</th>
<th>STEL (mg/m³P3)</th>
<th>ADI (mg/Kg/day)</th>
<th>NOEL (mg/Kg/day)</th>
</tr>
</thead>
</table>

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/m³ 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:** Avoid high mist 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 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 mist 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.

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**Section 9 - Physical and Chemical Properties:**

<table>
<thead>
<tr>
<th>Physical Description &amp; colour:</th>
<th>Purple/blue liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour:</td>
<td>Slight odour.</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>approx 100°C</td>
</tr>
<tr>
<td>Freezing Point:</td>
<td>0°C</td>
</tr>
<tr>
<td>Volatiles:</td>
<td>No specific data. Expected to be low at 100°C.</td>
</tr>
<tr>
<td>Vapour Pressure:</td>
<td>Negligible at normal ambient temperatures.</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>No data.</td>
</tr>
<tr>
<td>Water Solubility:</td>
<td>Soluble (Miscible)</td>
</tr>
<tr>
<td>pH:</td>
<td>no data</td>
</tr>
<tr>
<td>Volatility:</td>
<td>Negligible at normal ambient temperatures.</td>
</tr>
<tr>
<td>Odour Threshold:</td>
<td>No data.</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>No data</td>
</tr>
<tr>
<td>Coeff Oil/water Distribution:</td>
<td>No data</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

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**Section 10 - Stability and Reactivity**

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

**Conditions to Avoid:** Heat, flames.

**Incompatibilities:** Gels and generates heat when mixed with acid. May react with ammonium salts resulting in evolution of ammonia gas. Flammable hydrogen gas may be produced on contact with aluminium, tin, lead, and zinc. Also, avoid acids.

**Fire Decomposition Products:** Oxides of sulphur and manganese.

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

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**Section 11 - Toxicological Information**

**Health Hazard Summary:** Low toxicity. This product may only present a hazard with eye contact, prolonged and repeated skin contact or with ingestion of large quantities.

**Toxicity to Animals:**

No Data

**Potential Health Effects**

**Inhalation:** If product in high concentrations of airborne mist, prolonged contact may cause irritation to the nose and throat.

**Skin Contact:** May cause irritation. Some individuals with sensitive skin may experience adverse skin reactions and would be advised to discontinue use.

**Eye Contact:** Exposure may result in irritation, pain and redness.

**Ingestion:** May cause digestive tract irritation, with accompanying nausea, vomiting and diarrhoea if consumed in large quantities.
**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.

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**Section 12 - Ecological Information**

**Environment:** Avoid contamination of waterways.

**Persistence/degradation:** Will persist for weeks in soil, but is a plant nutrient.

**Mobility:** Readily leaches

**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/

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**Section 14 - Transport Information**

**ADG Code:** This product is not classified as a Dangerous Good for transport by road or rail.

**IMDG/IATA:** Not a Dangerous Good for transport by sea or air

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**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.

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**Section 16 - Other Information**

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

**Acronyms:**

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

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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 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.

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Please read all labels carefully before using product.
This MSDS 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)]

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