

### Section 1 - Identification of the Material and Supplier

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**Chemical nature:** Blend of fertiliser ingredients.  
**Trade Name:** **Apex 22-2.6-6.6 NPK Plus**  
**Product Code:** 226  
**Product Use:** Inorganic chemical fertiliser.  
**Creation Date:** **May, 2012**  
**This version issued:** **May, 2012** and is valid for 5 years from this date.

### Section 2 - Hazards Identification

#### Statement of Hazardous Nature

This product is classified as: Not classified as hazardous according to the criteria of SWA.

Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code.

**Risk Phrases:** Not Hazardous - No criteria found.

**Safety Phrases:** S20, S22, S36, S24/25. When using, do not eat or drink. Do not breathe dust. Wear suitable protective clothing. Avoid contact with skin and eyes.

**SUSMP Classification:** None allocated.

**ADG Classification:** None allocated. Not a Dangerous Good under the ADG Code.

**UN Number:** None allocated

### Emergency Overview

**Physical Description & Colour:** Green and dark brown granules.

**Odour:** No data re odour.

**Major Health Hazards:** no significant risk factors have been found for this product.

### Potential Health Effects

#### Inhalation:

**Short Term Exposure:** Available data indicates that this product is not harmful. In addition product is unlikely to cause any discomfort or irritation.

**Long Term Exposure:** No data for health effects associated with long term inhalation.

#### Skin Contact:

**Short Term Exposure:** Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be mildly irritating, but is unlikely to cause anything more than mild discomfort which should disappear once contact ceases.

**Long Term Exposure:** No data for health effects associated with long term skin exposure.

#### Eye Contact:

**Short Term Exposure:** This product is believed to be mildly irritating, to eyes, but is unlikely to cause anything more than mild transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

#### Ingestion:

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. However, this product is believed to be mildly irritating to mucous membranes but is unlikely to cause anything more than mild transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

#### Carcinogen Status:

**SWA:** No significant ingredient is classified as carcinogenic by SWA.

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**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/m <sup>3</sup> ) | STEL (mg/m <sup>3</sup> ) |
|---------------------------------------|-----------|---------|--------------------------|---------------------------|
| Ammonium nitrate                      | 6484-52-2 | *       | not set                  | not set                   |
| Monoammonium phosphate                | 7722-76-1 | *       | not set                  | not set                   |
| Potassium sulfate (sulfate of potash) | 7778-80-5 | *       | not set                  | not set                   |
| Urea                                  | 57-13-6   | *       | not set                  | not set                   |
| Diatomaceous earth                    |           | *       | not set                  | not set                   |
| Pacmix micronutrient mix              |           | *       | not set                  | not set                   |
| Polyurethane Coating                  |           | *       | not set                  | not set                   |
| Wax                                   |           | *       | not set                  | not set                   |

\* In a ratio to provide 22% nitrogen (N), 0.2% Iron (Fe), 2.6% phosphorus (P) and 6.6% potassium (K). Also provides 3% sulfur (S), 0.05% manganese (Mn), 0.05% zinc (Zn), 0.05% copper (Cu) and 0.0006% molybdenum (Mo).

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

The SWA 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 may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated 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 (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

**Inhalation:** First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**Skin Contact:** Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

**Eye Contact:** Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed, while holding the eyelid(s) open. Obtain medical advice immediately if irritation occurs. Take special care if exposed person is wearing contact lenses.

**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 a 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 may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** Suitable extinguishing media are carbon dioxide, dry chemical, foam, water fog.

**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.

**Autoignition temperature:** Not applicable - does not burn.

**Flammability Class:** Does not burn.

### Section 6 - Accidental Release Measures

**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include cotton, rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable Dust Mask. Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers

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wherever possible after careful cleaning. 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:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** Make sure that containers of this product are kept tightly closed. Keep containers dry and away from water. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Check packaging - there may be further storage instructions on the label.

## 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**, Occupational Protective Clothing: **AS/NZS 4501** set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

### SWA Exposure Limits

### TWA (mg/m<sup>3</sup>)

### STEL (mg/m<sup>3</sup>)

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

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 are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

**Eye Protection:** Eye protection such as protective glasses or goggles is recommended when this product is being used.

**Skin Protection:** The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

**Protective Material Types:** There is no specific recommendation for any particular protective material type.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

## Section 9 - Physical and Chemical Properties:

|   |  |
|---|--|
| <b>Physical Description &amp; colour:</b> | Green and dark brown granules.                                       |
| <b>Odour:</b>                             | No data re odour.  |
| <b>Boiling Point:</b>                     | Not applicable.  |
| <b>Freezing/Melting Point:</b>            | Decomposes before melting.   |
| <b>Volatiles:</b>                         | Nil at 100°C.  |
| <b>Vapour Pressure:</b>                   | Nil at normal ambient temperatures.                                  |
| <b>Vapour Density:</b>                    | Not applicable.  |
| <b>Specific Gravity:</b>                  | No data.   |
| <b>Water Solubility:</b>                  | Slowly but largely soluble (slowed by wax and polyurethane coating). |
| <b>pH:</b>                                | No data.   |
| <b>Volatility:</b>                        | Nil at normal ambient temperatures.                                  |
| <b>Odour Threshold:</b>                   | No data.   |
| <b>Evaporation Rate:</b>                  | Not applicable.  |
| <b>Coeff Oil/water Distribution:</b>      | No data  |
| <b>Viscosity:</b>                         | Not applicable.  |
| <b>Autoignition temp:</b>                 | Not applicable - does not burn.                                      |

## Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** Keep containers tightly closed. Containers should be kept dry.

**Incompatibilities:** No particular Incompatibilities.

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**Fire Decomposition:** May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. May form oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. May form oxides of phosphorus and other phosphorus compounds. Potassium, manganese, iron and other metal compounds.

**Polymerisation:** This product will not undergo polymerisation reactions.

## Section 11 - Toxicological Information

### Local Effects:

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

## Classification of Hazardous Ingredients

| Ingredient   | Risk Phrases   |
|--|--|
| No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations. |  |
| <b>Ammonium Nitrate:</b>   | LD <sub>50</sub> Oral Rat 1480-1770mg/kg                 |
| LD <sub>50</sub> (Dermal), Rat >5000mg/kg  | LC <sub>50</sub> Inhal, 4hr Rat >88,800mg/m <sup>3</sup> |
| <b>Monoammonium Phosphate:</b>   |  |
| LD <sub>50</sub> Oral, Rat >2000mg/kg  | LD <sub>50</sub> Dermal, Rat = >5000mg/kg                |
| <b>Potassium Sulfate:</b>  | LD <sub>50</sub> Oral, Rat 6600mg/kg                     |
| <b>Urea:</b>   | LD <sub>50</sub> (Oral), Rat 14,300mg/kg                 |

## Section 12 - Ecological Information

This product is unlikely to adversely effect the environment. Salts, acids and bases are typically diluted and neutralised when released to the environment in small quantities. Expected to not be an environmental hazard.

|                                       |  |
|---------------------------------------|--|
| <b>Ammonium Nitrate:</b>              | EC <sub>50</sub> Daphnia: 124.9mg/L                                    |
| <b>Monoammonium Phosphate:</b>        | LC <sub>50</sub> rainbow trout ( <i>Oncorhynchus mykiss</i> ): >86mg/L |
| <b>Potassium sulfate:</b>             | LC <sub>50</sub> Fish: 680-3550mg/L                                    |
| EC <sub>50</sub> Daphnia: 720-890mg/L |  |
| <b>Urea:</b>                          | LC <sub>50</sub> Fish: >9100mg/L                                       |
| EC <sub>50</sub> Daphnia: >10,000mg/L |  |

## Section 13 - Disposal Considerations

**Disposal:** This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to separate the contamination in some way. Only if neither of these options is suitable, consider landfill.

## 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

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

## Section 16 - Other Information

**This MSDS 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 (7 <sup>th</sup> edition)                     |
| <b>AICS</b>         | Australian Inventory of Chemical Substances   |
| <b>SWA</b>          | Safe Work Australia, formerly ASCC and NOHSC  |
| <b>CAS number</b>   | Chemical Abstracts Service Registry Number  |
| <b>Hazchem Code</b> | Emergency action code of numbers and letters that provide information to emergency services especially firefighters |
| <b>IARC</b>         | International Agency for Research on Cancer   |
| <b>NOS</b>          | Not otherwise specified   |
| <b>NTP</b>          | National Toxicology Program (USA)   |
| <b>R-Phrase</b>     | Risk Phrase   |
| <b>SUSMP</b>        | Standard for the Uniform Scheduling of Medicines & Poisons  |
| <b>UN Number</b>    | United Nations Number   |

## MATERIAL SAFETY DATA SHEET

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 SWA 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**

Issued by: Simplot Partners

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**Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)**