SIMPLOT PARTNERS® turf & horticulture Product Name: Turf Gold 22-1-4

Product Name: Turf Gold 22-1-4 Page: 1 of 5 This revision issued: May, 2013

Section 1 - Identification of the Material and Supplier

| Simplot Partners 25 Hinkler Road Mordialloc, Vic 3195 | | Phone: 03 9588 3700 (office hours) Phone 0413 749 004 (24 hr emergency) Fax: 03 9588 3710 |
|---|-----------------------------------|---|
| | | email: Matt.Scott@simplot.com.au |
| Chemical nature: | Blend of fertiliser ingredients. | |
| Trade Name: | Turf Gold 22-1-4 | |
| Product Code: | 7403450# | |
| Product Use: | Slow release chemical fertiliser. | |

Creation Date: February, 2012 This version issued: May. 2013 and is valid to

May, 2013 and is valid for 5 years from this date.

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as: Xn, Harmful. Xi, Irritating. Hazardous according to the criteria of SWA.

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

Risk Phrases: R22, R36. Harmful if swallowed. Irritating to eyes.

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



GHS Signal word: WARNING.

HAZARD STATEMENT:

H302: Harmful if swallowed.

H320: Causes eye irritation.

PREVENTION

P232: Protect from moisture.

P264: Wash contacted areas thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves, protective clothing and eye or face protection.

RESPONSE

P330: Rinse mouth.

P337: If eye irritation persists: seek medical attention.

P353: Rinse skin or shower with water.

P301+P312: IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.

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

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice.

P370+P378: In case of fire: Suitable extinguishing media are carbon dioxide, dry chemical, foam, water fog. **STORAGE**

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

DISPOSAL

P501: Dispose of contents and containers to landfill.

MATERIAL SAFETY DATA SHEET

Issued by: Simplot Partners

Phone: 03 9588 3700 (office hours)

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

Emergency Overview

Physical Description & Colour: Dark grey and light green granules. Odour: Mild odour.

Major Health Hazards: harmful if swallowed, eye irritant.

Potential Health Effects

Inhalation:

Short Term Exposure: Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

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 irritating, but is unlikely to cause anything more than mild transient discomfort. Long Term Exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short Term Exposure: This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.

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. Available data shows that this product is harmful, but symptoms are not available. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than 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.

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/m ³) |
| Ammonium sulfate | 7783-20-2 | * | not set | not set |
| Monoammonium phosphate | 7722-76-1 | * | not set | not set |
| Potassium chloride (muriate of potash) | 7447-40-7 | * | not set | not set |
| Iron oxysulfate | 1310-45-8 | * | not set | not set |
| Manganese oxysulfate | no data | * | not set | not set |
| Urea | 57-13-6 | * | not set | not set |
| Sulfur | 7704-34-6 | * | not set | not set |
| Polyurethane coating and wax | no data | | not set | not set |

* In a ratio to provide 22% nitrogen (N), 3.3% Iron (Fe), 1% phosphorus (P) and 4% potassium (K). Also provides 13% sulfur (S) and 0.1% manganese (Mn).

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.

MATERIAL SAFETY DATA SHEET

Issued by: Simplot Partners

Phone: 03 9588 3700 (office hours) Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

Inhalation: No first aid measures normally required. 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: Gently brush away excess particles. Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

Eye Contact: Quickly and gently brush particles from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call 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: 207°C (sulfur). **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 wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant guantity 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.

TWA (mg/m³) SWA Exposure Limits

STEL (mg/m³) 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: This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

MATERIAL SAFETY DATA SHEET

Issued by: Simplot Partners

Phone: 03 9588 3700 (office hours)

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

Eye Protection: Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

Skin Protection: You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: cotton, rubber, PVC.

Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask. Otherwise, not normally necessary.

Eyebaths or eyewash stations and safety deluge showers should be provided near to where this product is being handled commercially.

Section 9 - Physical and Chemical Properties:

| Physical Description & colour: | Dark grey and light green granules. |
|--------------------------------|-------------------------------------|
| Odour: | Mild odour. |
| Boiling Point: | Not applicable. |
| Freezing/Melting Point: | Decomposes before melting. |
| Volatiles: | Nil at 100°C. |
| Vapour Pressure: | Nil at normal ambient temperatures. |
| Vapour Density: | Not applicable. |
| Specific Gravity: | 0.95 |
| Water Solubility: | 40-67g/100mL at 25°C. |
| pH: | No data. |
| Volatility: | Nil at normal ambient temperatures. |
| Odour Threshold: | No data. |
| Evaporation Rate: | Not applicable. |
| Coeff Oil/water Distribution: | No data |
| Viscosity: | Not applicable. |
| Autoignition temp: | 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.

Fire Decomposition: Combustion forms carbon dioxide, and if incomplete, carbon monoxide and smoke. Water is also formed. 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 and iron compounds. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

| Local | Effects: |
|-------|-----------|
| Targe | t 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 p | resent in this product at hazardous concentrations. |
| Ammonium Sulfate: | |
| LD ₅₀ Oral, Rat 640-4250mg/kg | LD_{50} Dermal, Rat = >2000mg/kg |
| Monoammonium Phosphate: | |
| LD ₅₀ Oral, Rat >2000mg/kg | LD_{50} Dermal, Rat = >5000mg/kg |
| Potassium chloride: | LD ₅₀ Oral, Rat 1500-2600mg/kg |
| Urea: | LD ₅₀ (Oral), Rat 14,300mg/kg |

MATERIAL SAFETY DATA SHEET

Issued by: Simplot Partners

Phone: 03 9588 3700 (office hours)

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

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.

Monoammonium Phosphate: Potassium chloride:

Urea: LC₅₀ Fish: >9100mg/L

 LC_{50} rainbow trout (*Oncorhynchus mykiss*): >86mg/L LC_{50} Fish: 2010mg/L EC_{50} 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: | |
|--|---|
| ADG Code | Australian Code for the Transport of Dangerous Goods by Road and Rail (7 th edition) |
| AICS | Australian Inventory of Chemical Substances |
| SWA | Safe Work Australia, formerly ASCC and NOHSC |
| CAS number | Chemical Abstracts Service Registry Number |
| Hazchem Code | Emergency action code of numbers and letters that provide information to emergency |
| | services especially firefighters |
| IARC | International Agency for Research on Cancer |
| NOS | Not otherwise specified |
| NTP | National Toxicology Program (USA) |
| R-Phrase | Risk Phrase |
| SUSMP | Standard for the Uniform Scheduling of Medicines & 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 SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011) Copyright © Kilford & Kilford Pty Ltd, May, 2013.

http://www.kilford.com.au/ Phone (02)9251 4532