

Safety Data Sheet



Product Name: Colluli SOP-M – Granular

1. IDENTIFICATION

| | |
|----------------------------|--|
| Supplier Name | Danakali Limited |
| Address | 31 Ventnor Avenue, WEST PERTH, WA 6005, Australia |
| Web Address | www.danakali.com |
| Telephone | +61 8 6315 1444 |
| Fax | +61 8 9486 7093 |
| Emergency | +61 8 6315 1444 |
| Product Name | Colluli SOP-M – Granular |
| Product Description | Potassium magnesium sulphate (leonite) produced from natural kainite and sylvite evaporite deposits. |
| Other Names | Leonite, sulphate of potash –magnesium |
| Use(s) | Fertiliser |
| SDS Date | 20 November 2015 |

2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF THE GLOBALLY HARMONISED SYSTEM

Signal word: None
Symbols: None

HAZARD STATEMENTS

None

PRECAUTIONARY STATEMENTS

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

NOT CLASSIFIED DANGEROUS GOODS BY THE CRITERIA OF THE ADG CODE

| | | | |
|------------------------|----------------|----------------------|----------------|
| UN No | None Allocated | DG Class | None Allocated |
| Subsidiary Risk | None Allocated | Packing Group | None Allocated |
| HAZCHEM Code | None Allocated | IMO MARPOL V | Not HME |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| COMPONENT | FORMULA | CAS No. | CONTENT |
|------------------------------|-----------------------------|------------|---------|
| Potassium Magnesium Sulphate | $K_2Mg(SO_4)_2 \cdot 4H_2O$ | 15226-80-9 | >98% |
| Other salts non hazardous | Various | | <2% |

4. FIRST AID MEASURES

Inhalation If inhaled, remove from contaminated area. To protect rescuer, use a particulate dust mask (Class P1 or P2). Apply artificial respiration if not breathing or asthma like symptoms occur.

Safety Data Sheet



Product Name: Colluli SOP-M – Granular

| | |
|-----------------------------|---|
| Eyes | Hold eyelids apart and flush continuously with clean running water. Continue flushing until advised to stop by a qualified person (Doctor or Poisons Information Centre), or for at least 15 minutes. |
| Ingestion | If person is conscious, rinse mouth thoroughly with water and give water or milk to drink. Induce vomiting if a large amount has been swallowed. Seek advice from the Poisons Information Centre on 13 11 16 (Australia wide) or a Doctor if there is pain or difficulty with swallowing. |
| Skin | If contact with skin or hair occurs, remove contaminated clothing and flush hair or skin with clean running water and soap. If skin irritation or rash occurs seek medical attention. |
| First Aid Facilities | Eye wash facilities and drinking water should be available. |
| Advice to Doctor | Treat symptomatically. |

5. FIRE FIGHTING MEASURES

| | |
|---------------------------|---|
| Flammability | Non flammable. |
| Fire and Explosion | Non flammable and does not support combustion. |
| Extinguishing | As appropriate for primary fuel source, is not flammable and does not support combustion. |
| HAZCHEM Code | Not assigned. |

6. ACCIDENTAL RELEASE MEASURES

| | |
|-----------------|---|
| Spillage | Handle with personal protective equipment (see Section 8). Clear area of all unprotected personnel. Avoid generating dust. Collect material for re-use or disposal. |
|-----------------|---|

7. STORAGE AND HANDLING

| | |
|-----------------|---|
| Storage | Store in sealed containers to limit exposure to air and moisture which will cause the material to agglomerate. Store away from foodstuffs. Incompatible with aluminium and magnesium alloys. |
| Handling | Carefully read the product label before handling. Use safe handling practices to minimise risk of eye or skin contact and inhalation of dust. Wear protective gloves, eye protection (safety glasses) and a particulate dust mask (Class P1 or P2) at high dust levels when handling large amounts. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards

| Ingredient | Reference | TWA | STEL |
|---------------|---|----------------------|------|
| Nuisance dust | Safe Work Australia Hazardous Substances Information System | 10 mg/m ³ | None |

No specific dust exposure limits are set. The ACGIH/Safework Australia TWA for general inhalable dust is 10 mg/m³.

Biological Limits

There are no biological limits allocated.

Safety Data Sheet



Product Name: Colluli SOP-M – Granular

Engineering Controls

Use in ventilated areas, avoid high dust concentrations.

Personal Protective Equipment (PPE)

Wear protective gloves, eye protection (safety glasses) and a particulate dust mask (Class P1 or P2) at high dust levels when handling large amounts.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------|--|
| Appearance | White crystalline granules |
| Odour | Odourless |
| pH | 6 to 7 |
| Vapour Pressure | Negligible |
| Vapour Density | Not applicable |
| Boiling Point | Not available |
| Melting Point | Not available |
| Solubility in Water | Soluble (31 g/100 mL at 25°C) |
| Specific Gravity | 2.2 |
| Bulk Density | Approximately 1.3 to 1.5 tonnes/m ³ |
| Particle Size | 2 to 4 mm |
| Flammability | Not flammable |
| Flash Point | Not applicable |

10. STABILITY AND REACTIVITY

Chemical Stability Stable under recommended storage conditions (sealed containers), at ambient temperatures. Polymerisation will not occur. As it is a soluble salt, it is mildly corrosive to metals in the presence of moisture.

Conditions to Avoid High temperatures and open flames.

Incompatible Materials

Incompatible with aluminium and magnesium metal – explosion risk at high temperatures.

Hazardous Decomposition Products

May evolve toxic fumes or gases (sulphur dioxide/sulphur trioxide) upon heating to decomposition.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary

Product has a low toxicity. No eye, skin, carcinogenicity, mutagenicity, target organ or developmental toxicity data was found for potassium magnesium sulphate. General statements below are based on information for potassium/magnesium sulphate. Use normal safe work practices to avoid excessive eye or skin contact and dust inhalation. Product is non-toxic when ingested in small quantities. Ingestion of large quantities may cause gastrointestinal irritation and vomiting.

Safety Data Sheet



Product Name: Colluli SOP-M – Granular

| | |
|----------------------|---|
| Eye | May cause eye irritation, discomfort and redness. |
| Inhalation | Prolonged inhalation of high dust concentrations of airborne dust may cause irritation to the nose, throat and upper respiratory tract. |
| Skin | Low irritant, prolonged or repeated contact may result in mild irritation or rash (dermatitis) from the drying effect of the material on the skin. |
| Ingestion | Low acute toxicity. Ingestion of large quantities may result in nausea, vomiting and gastrointestinal irritation. Lower doses will likely irritate the mouth, oesophagus and stomach. Sulphate salts have a purgative effect (diarrhoea). |
| Toxicity Data | Potassium Magnesium Sulphate (15226-80-9), no toxicity data was available. Related compounds and their toxicity are: Potassium Sulphate (7778-80-5): LD ₅₀ (ingestion): 6,600 mg/kg (rat) TDL ₀ (ingestion): 750 mg/kg (woman) Magnesium Sulphate Heptahydrate (10034-99-8): TDL ₀ (ingestion): 351 mg/kg (woman) |

12. ECOLOGICAL INFORMATION

| | |
|--------------------|--|
| Ecotoxicity | The material is a naturally occurring salt and not expected to cause any adverse effects to animals or plant life if released in controlled quantities such that general salinity is not affected in the area. |
|--------------------|--|

13. DISPOSAL CONSIDERATIONS

| | |
|-----------------------|---|
| Waste Disposal | Dispose of contents to an approved waste disposal facility if required. |
|-----------------------|---|

14. TRANSPORT INFORMATION

| | |
|---|--|
| ADG/IMDG Dangerous Goods Classification: | Not a Dangerous Good |
| UN Number | None Allocated |
| UN Proper Shipping Name | None Allocated |
| Class and Subsidiary Risk | None Allocated |
| Packing Group | None Allocated |
| Hazchem Code | None Allocated |
| IMO MARPOL V | Not classified by health or HME (Harmful Marine Environment) criteria. |

15. REGULATORY INFORMATION

| | |
|------------------------|--|
| Poison Schedule | Not scheduled in Australia using the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP). |
|------------------------|--|

Safety Data Sheet



Product Name: Colluli SOP-M – Granular

16. OTHER INFORMATION

Abbreviations

| | |
|-------------------|---|
| ACGIH | American Conference of Government and Industrial Hygienists |
| ADG | Australian Dangerous Goods Code |
| BEI | Biological Exposure Index |
| CAS No | Chemical Abstracts Service number to uniquely identify chemical compounds |
| EC ₅₀ | Effect concentration required for 50% of the members of the test population |
| GHS | Globally Harmonized System for the Classification and Labelling of Chemicals |
| LD ₅₀ | Lethal dose required to kill 50% of the members of a test population after a specific time period |
| LDL ₀ | Lowest dose causing lethality |
| TDL ₀ | Lowest dose causing a toxic effect |
| LC ₅₀ | Lethal concentration required to kill 50% of the members of a test population after a specific time period after exposure |
| NOEC | No observable effect concentration (chronic toxicity) |
| NIOSH | National Institute of Occupational Safety and Health (United States) |
| mg/L | milligrams per litre |
| mg/m ³ | milligrams per cubic metre. |
| RTECS | Registry of Toxic Effects of Chemical Substances (NIOSH) |
| TWA | Time weighted average |
| STEL | Short term exposure limit |

Reference

This document was prepared in accordance with the code of practice for the Preparation of Safety Data Sheets for Hazardous Chemicals published by SafeWork Australia 2011. MBS Environmental considers that the information in this Safety Data Sheet is accurate based on information supplied, however makes no express or implied warranty as to the accuracy of such information and expressly disclaims any liability resulting from reliance on such information.

Prepared by

MBS Environmental
4 Cook Street, West Perth
Western Australia 6005
Phone: +61 8 9226 3166
Fax: +61 8 9226 3177
Email: info@mbsenvironmental.com.au
Web: www.mbsenvironmental.com.au