MATERIAL SAFETY DATA SHEET

PRODUCT: SULPHUR – FOR LOWERING SOIL pH

Date of Issue: 16 AUG 2021 **Valid until:** 15 AUG 2026 **GHS** Format

1. IDENTIFICATION OF MATERIAL AND SUPPLIER

Product (material) Name: Sulphur – For Lowering Soil pH
Other names: Sulphur Prills
Manufacturer/Supplier codes: MTO1555/MTO0555B/MBP0308/MCSU25/MCBS25
Recommended use: Used a soil acidifier to lower pH of alkaline soils and also as a nutrient to supplement Sulphur deficiency in plants

Manufacturer/Supplier Information:

Name: MANUTEC PTY LTD
Address: 30 Jonal drive, Cavan, South Australia 5094
Telephone No:+61-8-8260 2277 **Fax**:+61-8-8260 2399
Email: manutec@manutec.com.au

Emergency contact: Poisons Information Centre (Australia) 131126

2. HAZARDS IDENTIFICATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road or Rail; NON-DANGEROUS GOODS.
Sulphur is not subject to the provisions of the Australian Dangerous Goods Code when it has been formed into a specific shape such as pastilles, prills, granules, pellets or flakes.
This material is hazardous according to Safe Work Australia – HAZARDOUS SUBSTANCE

Signal Word: WARNING

Pictograms

Hazard Statement: H315 Causes Skin Irritation
Precautionary Statement(s):

Prevention: P264 Wash Hands Thoroughly after handling
P280 Wear Protective Gloves / protective clothing / eye protection / face protection

Response: P302 & P352 If on skin – wash with plenty of soap and water
P321 Specific treatment (see 1st Aid Measures on SDS)
P332 & P313 If skin irritation occurs then get medical advice/attention
P362 Take off contaminated clothing and wash before re-use

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	%
Sulphur (prilled)	7704-34-9	100

4. FIRST AID MEASURES

Inhalation:
Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep them warm. Keep at rest until fully recovered. Seek medical advice if symptoms persist.
Ingestion:
Rinse mouth with water. If swallowed, do NOT induce vomiting. Immediately give a glass of water. Seek medical advice.
Eye Contact:
If contact is made with eyes, immediately wash out with water. If pain or irritation persists, seek medical advice.
Skin Contact:
If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water and soap (if available). If swelling, redness, irritation or blistering occurs seek medical advice.

For advice contact a Poisons Information Centre (telephone 131 126) or a doctor.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water spray or fog.

Specific Hazards arising from the substance:
Solid is combustible. May form flammable dust clouds in air. Dust clouds are readily ignited in air by weak frictional sparks, ensure all electrical appliances are isolated. Static charge can be created by moving Sulphur. Sulphur burns with a pale blue flame that may be difficult to see in daylight. Avoid contact with oxidising agents.

Specific protective equipment and precautions for fire fighters:
Sulphur can melt and flow in a fire situation. If safe to do so, remove containers from path of fire. Cool fire exposed containers with water spray from a protected location. On ignition will emit toxic fumes, including those of oxides of Sulphur. Wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion. Keeping product and containers damp will reduce

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures/Environmental Precautions:
Shut off all possible sources of ignition. Clear area of all unprotected personnel. If contamination of drains or waterways occurs advice local emergency services**.**

Personal Precautions/Protective Equipment/Methods for cleaning up and containment:
Avoid accidents, clean up immediately as can be slippery when spilt. Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind and/or improve ventiliation. Cover with damp, absorbent materials such as sand or soil. Sweep up and avoid generating dust. Collect and seal in properly labelled containers or drums for disposal. Use a spark free shovel.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid skin and eye contact and breathing in dust. Avoid any handling that leads to dust generation. May form flammable dust clouds in air. Take precautions against static discharges.
Conditions for safe storage, including and incompatibilities:
Store in a cool, dry, well ventilated environment, out of direct sunlight. Store away from other sources of heat or ignition. Store away from foodstuffs. Store away from incompatible materials such as oxidizing agents. Do not store on timber floors. Keep containers closed when not in use and check regularly for spils

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: Safe Work Australia assign no value for this specific material. However, Workplace Exposure Standards apply for particulates.

EXPOSURE CONTROLS

Source	Material	TWA mg/m³
Australia Exposure Standards	sulphur granules, pellets, prills (Inspirable dust (not otherwise classified))	10

(TWA calculated over an 8 hr working day, for a 5 day working week)

Appropriate Engineering Controls:
Ensure that ventilation is adequate to maintain air concentrations below the Workplace Exposure Standards. Keep containers closed when not in use.
If in the handling of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered, ensuring that no sources of ignition are introduced.
Individual Protection Measures such as PPE:
The selection of PPE is dependent upon a detailed risk assessment of the task. The risk assessment should consider the work situation, the physical form of the Sulphur, the handling methods and environmental factors.
Wear overalls, safety glasses and impervious gloves. Avoid generating and inhaling dusts. If determined via a risk assessment that an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS 1715 and AS 1716. Always wash

hands before eating, drinking, smoking or using the toilet. Wash contaminated clothing and other protective equipment prior to storage or re use

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid
Colour: Yellow
Odour: Odourless, however impurities may cause a hydrogen sulphide odour ("rotten eggs")
Molecular Fomula: S
Solubility: Insoluble in water
Specific Gravity: 1.92 – 2.07
Flash Point: >180 oC (as dust)
Flammability Limits (%): 35 – 1,400 g/m3 (as dust)
Autoignition Temperature 232 oC (as dust)
Melting Point: 112.8 – 119.0 oC
Boiling Point: 444.6 oC
pH: Not applicable

10. STABILITY AND REACTIVITY

Reactivity:
Reacts violently with finely divided metals, alkali metals and mineral acids
Chemical Stability:
Stable under normal conditions of storage and handling
Possibility of Hazardous Reactions:
Corrosive to wet steel. Dust explosion hazard
Conditions to Avoid:
Avoid naked flames and other sources of ignition, including static.
Avoid exposure to heat
Incompatible Materials: Incompatible with oxidising agents
Hazardous Decomposition Products: Oxides of Sulphur

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet.
Symptoms or effects if the product is mishandled and over-exposure occurs include:
Eye Contact:
May be an eye irritant. Exposure to dust may cause discomfort and physical irritation to the eyes
Ingestion:
Swallowing can result in nausea, diarrhea, vomiting and abdominal pain

Skin Contact:
Contact with skin may result in irritation
Inhalation:
Breathing dust may result in respiratory irritation
Acute Toxicity:
Data extracted from RTECS - Register of Toxic Effects of Chemical Substances.
Oral (rat) LD50: >8437 mg/kg
Oral (rabbit) LDLo: 175 mg/kg
Chronic Effects: No information available for sulphur

12. ECOLOGICAL INFORMATION

Ecotoxicity
Avoid contaminating drains and waterways

13. DISPOSABLE CONSIDERATIONS

Disposable methods: Non hazardous waste, dispose in accordance with all local, state and federal regulations.

Packaging/containers: Containers/packaging must be treated as waste and disposed in accordingly depending on material type. Plastic packaging can be treated as recyled waste as appropriate.

14. TRANSPORT INFORMATION

Road and Rail Transport: Not classified as a Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail. NON-DANGEROUS GOODS. Sulphur is not subject to the provisions of the Australia Dangerous Goods Code when it has been formed into a specific shape such as pastilles, prills, granules, pellets or flakes.

Marine Transport: Not classified as a Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea. NON-DANGEROUS GOODS. Sulphur is not subject to the provisions of the International Maritime Dangerous Goods Code when it has been formed into a specific shape such as pastilles, prills, granules, pellets or flakes.

Air Transport: Not classified as a Dangerous Goods by the criteria of the International Air Transport Association Dangerous Goods Regulations (IATA Regs) for transport by air. NON-DANGEROUS GOODS. Sulphur is not subject to the provisions of the International Air Transport Dangerous Goods Regulations when it has been formed into a specific shape such as pastilles, prills, granules, pellets or flakes.

15. REGULATORY INFORMATION

Classification: This product is hazardous according to Work Safe Australia.
HAZARDOUS SUBSTANCE
Hazard Statement: H315 Causes Skin Irritation
Poisons Schedule: None listed
This material is listed on the Australian Inventory of Chemical Substances (AICS)

16. OTHER INFORMATION

The MSDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

STATEMENT OF DISCLAIM:

This Material Safety Data Sheet has been developed according to WHS Code of Practice Preparation of Safety Data Sheets for Hazardous Chemicals Guidelines and written in accordance with GHS format.

All information is as accurate and up-to-date as possible. Since Manutec Pty Ltd cannot anticipate or control the conditions under which this information may be used, each user should review the information in the specific context of the intended application. Manutec Pty Ltd will not be responsible for damages of any nature resulting from use of or reliance upon this information.

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