

SULPHUR 90**Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER**

Product Name:	SULPHUR 90 (Sulphur bentonite pastilles)
Product Code:	8001000
Recommended Use:	Fertiliser
Restrictions of Use:	Refer to Section 15
Company Identification:	Ravensdown Limited
Address:	292 Main South Road, Hornby, Christchurch 8042 PO Box 1049, Christchurch 8011
Customer Centre:	0800 100 123
National Poisons Information Centre:	0800 POISON (0800 764 766)
Emergency Phone Number:	0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
Transport Emergency Phone Number:	111 - tell operator what service is needed: Fire, Ambulance or Police
Date of SDS Preparation	17 March 2025 v3

Section 2: HAZARD IDENTIFICATION

This substance is **NOT** hazardous according to the EPA Hazardous Substances (Classification) Notice 2020 due to its formation.

However, any dust present or created through use can be hazardous:

WARNING: Sulphur Dust can ignite through friction

TOXIC: Sulphur Dust is irritating to eyes, skin and respiratory tract

Note: Keep out of reach of children

If burning, Sulphur 90 will produce Sulphur dioxide gas which is irritating and toxic

Section 3: COMPOSITION INFORMATION

INGREDIENT	CAS No.	CONTENT
Sulphur	7704-34-9	90 +/- 1%
Bentonite Clay	1302-78-9	10 +/- 1%

Section 4: FIRST AID MEASURES

Routes of Exposure:	
If in eyes:	Flush with plenty of water holding eyelids open if necessary. Inadequate irrigation may cause irritation. If eye irritation persists: Get medical advice/attention.
If on skin:	Remove contaminated clothing then wash affected area thoroughly with soap and water. Seek medical attention if needed.
If ingested:	Never give anything by mouth to an unconscious person. Rinse mouth but DO NOT induce vomiting. Seek medical advice.
If inhaled:	A patient inhaling Sulphur dust must be removed to fresh air. Lay patient down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.

Most important symptoms and effects, both acute and delayed	
Symptoms:	
Eyes:	If dust gets into eyes can cause irritation.
Skin:	Not applicable.
Ingested:	Ingestion may be irritating to the mouth, throat and stomach.
Inhaled:	Breathing in high concentrations of dust and vapour containing sulphur dioxide [SO ₂] can irritate the mucous membranes of the respiratory passage.
Chronic:	Not applicable.
Notes to Doctor:	N/A

Section 5: FIRE FIGHTING MEASURES

Hazard Type	This formed formulation of sulphur is not considered combustible. Concentrations of sulphur dust are easily ignitable and flammable.
Hazards from combustion products	Sulphur dust suspended in air is readily ignited by flame, static electricity or friction spark. Every reasonable step must be taken to minimize dust formation. Dust tight enclosures should be equipped with explosion relief vents. Spark-proof intrinsically safe electrical equipment should be used. Handling equipment must be grounded or bonded to avoid static electricity. Keep Sulphur90 away from sources of flame, ignition or sparks. If involved in a fire may evolve toxic and irritating fumes (Sulphur dioxide)
Suitable Extinguishing media	Fine water spray or fog is recommended. CO ₂ or dry powder extinguishers for small fires. Small fires may be smothered with sand, lime or more 'Sulphur 90'.
Precautions for firefighters and special protective clothing	Full protective clothing and self-contained breathing apparatus
HAZCHEM CODE	None allocated

Section 6: ACCIDENTIAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Wear appropriate protective clothing as detailed in Section 8. Exclude non-essential people from the area. Do not bring 'Sulphur 90' into contact with heat, sparks and any source of ignition. Do not come into contact with spilt 'Sulphur 90'. Do not inhale vapours which may contain sulphur dioxide.
Environmental precautions:
Prevent from entering drains, waterways or sewers. If spill does enter waterways contact local authority.
Methods and material for containment and cleaning up:
Contain spill and move bulk bags to a safe place. Dispose according to Section 13.

Section 7: HANDLING AND STORAGE

Handling:	Read label before use. Avoid contact with skin, eyes and inhalation of vapours. Wear protective clothing as detailed in Section 8.
Storage:	Keep out of reach of children. Store in original bulk bags tightly closed and in a dry, cool area out of direct sunlight, and sources of ignition. Store in accordance with NZS 8409 Management of Agrichemicals. Do not store with Class 3 liquids, Or Class 5 substances such as Oxidising fertilisers. Avoid breathing dust and keep protective clothing as free from dust as possible. 'Sulphur 90' becomes corrosive to metals when stored wet and will break down when exposed to moisture or water.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance**TWA**
ppm mg/m³**STEL**
ppm mg/m³

No ingredients have exposure limits.

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices FEB 2025 15TH EDITION.

Engineering Controls:	Handle in well-ventilated area. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. Avoid inhalation of dust and vapours.
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Personal Protection Equipment:

Eyes:	Dust proof goggles or mask with tight fitting frames should be used in dusty working conditions.
Skin/Hands:	Button overall collars, roll down sleeves and gather trousers at the ankle. Use rubber gloves when working with 'Sulphur 90'.
Respiratory:	Dust type respirators shall be provided for dusty conditions. Breathing apparatus [BA] must be available on site for use in the event of a fire.
General:	Do not eat, drink or smoke while using this product. Remove protective clothing and wash hands and face before meals and after work. Wash protective clothing daily after work.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid Pellet or Pastille in a split pea shape
Colour	Light green prill
Odour	Sulphurous Odour
Odour Threshold	Not available
pH	Neutral when dry
Boiling Point	444°C
Melting Point	119°C
Freezing Point	Not available
Flash Point	188°C
Flammability	Flammable
Upper and Lower Explosive Limits	LEL 35mg/cubic metre UEL 1400 gm/cu metre (dust)
Vapour Pressure	Solid: Less than 0.0001 mm. Hg at 20°C
Vapour Density	Not available
Specific Gravity	2.07 g/ml
Water Solubility	45% at 0°C
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10: STABILITY AND REACTIVITY

Stability of Substance	This product is stable under normal conditions.
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Possibility of hazardous reactions	Not available
Conditions to Avoid	The main hazards are fire and dust explosions.
Incompatible Materials	Avoid contact with oxidising agents, strong acids or alkalis.
Hazardous Decomposition Products	If involved in a fire may evolve toxic and irritating fumes (Sulphur dioxide)

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects:

Swallowed	Not triggered however if ingested is irritating to mouth, throat and stomach.
Dermal	Not applicable.
Inhalation	Not applicable. Breathing in high concentrations of dust and vapour containing sulphur dioxide [SO ₂] can irritate the mucous membranes of the respiratory passage.
Eye	Dust generated in handling 'Sulphur 90' will effectively be non-formed sulphur and considered a Class 6.4A. [eye irritant].
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

Section 12: ECOLOGICAL INFORMATION

This product is not harmful to the environment.

Product:	
Persistence and degradability	No data available.
Bioaccumulation	No data available.
Mobility in Soil	No data available.
Other adverse effects	No data available.

Section 13: DISPOSAL INFORMATION

Disposal Method:	Dispose of product only by using according to label or at an approved landfill
Container Disposal:	Crush and bury in an approved landfill. Do not use container for any other purpose.
Precautions or methods to avoid:	None known.

Section 14: TRANSPORT INFORMATION

This product is NOT classified as a Dangerous Good for transport in NZ ; NZS 5433:2020

Section 15: REGULATORY INFORMATION

This substance is NOT classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020	
EPA Approval Code:	N/A
HSNO Classification:	N/A

Section 16: OTHER INFORMATION

Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority

HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Feb 2025 15th edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact Ravensdown, if further information is required.

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