

## Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

<b>Product Name:</b>	<b>SULPHUR 90 ( Sulphur bentonite pastilles)</b>
<b>Product Code:</b>	-
<b>Recommended Use:</b>	Fertiliser
<b>Restrictions of Use:</b>	Refer to Section 15
<b>Company Identification:</b>	Ravensdown Limited
<b>Address:</b>	292 Main South Road, Hornby, Christchurch 8042 PO Box 1049, Christchurch 8011
<b>Customer Centre:</b>	0800 100 123
<b>National Poisons Information Centre:</b>	0800 POISON (0800 764 766)
<b>Emergency Phone Number:</b>	0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
<b>Transport Emergency Phone Number:</b>	111 - tell operator what service is needed: Fire, Ambulance or Police
<b>Date of SDS Preparation</b>	4 August 2020

## Section 2: HAZARD IDENTIFICATION

This substance is **NOT** hazardous according to the EPA Hazardous Substances (Classification) Notice 2017 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	1330-20-7	10+/- 1%

## Section 4: FIRST AID MEASURES

<b>Routes of Exposure:</b>	
<b>If in eyes:</b>	Flush with plenty of water holding eyelids open if necessary. Inadequate irrigation may cause irritation. If eye irritation persists: Get medical advice/attention.
<b>If on skin:</b>	Remove contaminated clothing then wash affected area thoroughly with soap and water. Seek medical attention if needed.
<b>If ingested:</b>	Never give anything by mouth to an unconscious person. Rinse mouth but <b>DO NOT</b> induce vomiting. Seek medical advice.
<b>If inhaled:</b>	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.
<b>Most important symptoms and effects, both acute and delayed</b>	

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

### Section 5: FIRE FIGHTING MEASURES

<b>Hazard Type</b>	This formed formulation of sulphur is not considered combustible. Concentrations of sulphur dust are easily ignitable and flammable.
<b>Hazards from combustion products</b>	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)
<b>Suitable Extinguishing media</b>	Fine water spray or fog is recommended. CO <sub>2</sub> or dry powder extinguishers for small fires. Small fires may be smothered with sand, lime or more 'Sulphur 90'.
<b>Precautions for firefighters and special protective clothing</b>	Full protective clothing and self-contained breathing apparatus
<b>HAZCHEM CODE</b>	<b>22</b>

### Section 6: ACCIDENTIAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures:</b>	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.
<b>Environmental precautions:</b>	Prevent from entering drains, waterways or sewers. If spill does enter waterways contact local authority.
<b>Methods and material for containment and cleaning up:</b>	Contain spill and move bulk bags to a safe place. Dispose according to Section 13.

### Section 7: HANDLING AND STORAGE

<b>Handling:</b>	Read label before use. Avoid contact with skin, eyes and inhalation of vapours. Wear protective clothing as detailed in Section 8.
<b>Storage:</b>	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/m<sup>3</sup>**STEL**  
ppm mg/m<sup>3</sup>

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 NOV 2019 11<sup>TH</sup> EDITION.

<b>Engineering Controls:</b>	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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<b>Personal Protection Equipment:</b>	
	
<b>Eyes:</b>	Dust proof goggles or mask with tight fitting frames should be used in dusty working conditions.
<b>Skin/Hands:</b>	Button overall collars, roll down sleeves and gather trousers at the ankle. Use rubber gloves when working with 'Sulphur 90'.
<b>Respiratory:</b>	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.
<b>General:</b>	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

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

### Section 10: STABILITY AND REACTIVITY

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Not available

<b>Conditions to Avoid</b>	The main hazards are fire and dust explosions.
<b>Incompatible Materials</b>	Avoid contact with oxidising agents, strong acids or alkalis.
<b>Hazardous Decomposition Products</b>	If involved in a fire may evolve toxic and irritating fumes (Sulphur dioxide)

## Section 11: TOXICOLOGICAL INFORMATION

### Acute Effects:

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

### Chronic Effects:

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

## Section 12: ECOLOGICAL INFORMATION

This product is not harmful to the environment.

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

## Section 13: DISPOSAL INFORMATION

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

## Section 14: TRANSPORT INFORMATION

This product is NOT classified as a Dangerous Good for transport in NZ ; NZS 5433:2012

## Section 15: REGULATORY INFORMATION

<b>This substance is NOT classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017</b>	
<b>EPA Approval Code:</b>	N/A
<b>HSNO Classification:</b>	N/A

## Section 16: OTHER INFORMATION

### Glossary

EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.

LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms	inhaling or ingesting it.
LD <sub>50</sub>	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 Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

#### Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

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Please contact Ravensdown, if further information is required.

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