

## SULPHUR 90

### 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Product Name: Sulphur 90

Other names: Tigar 90, Sulfur, Brimstone

Chemical Formula: 90% Elemental Sulphur

Recommended Use: As a fertiliser ingredient

Company Identification: Fert Wholesale Direct Ltd

Address: 205 Main Street, Mataura 9712

Contact phone No: 021 0235 6491

National Poisons Information Centre: 0800 POISON (0800 764 766)

Emergency Telephone Number: 0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)

Transport Emergency Phone: 111 - tell operator what service is needed: Fire, Ambulance, Police

### 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.

Chemical Class:

UN no	1350
Dangerous Goods Class	4.1
Hazchem Code	1(Z)
Toxic Substances Schedule	None allocated

WARNING



**WARNING**

### 3: COMPOSITION INFORMATION

Component Name	CAS Number	Proportion
Sulphur	7704-34-9	90%
Bentonite clay	11004-12-9	10%

### 4: FIRST AID MEASURES AND HEALTH HAZARD INFORMATION

#### Health Effects:

Low to moderate toxicity. May evolve highly irritating vapours if heated. Avoid eye –skin contact and vapour – dust inhalation. Some individuals may experience asthma-like symptoms with chronic over exposure.

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- Eye:** Low to moderate irritant. Direct contact may result in lacrimation, pain, redness and conjunctivitis.
- Skin:** Low irritant. Prolonged and repeated exposure to dust may result in irritation and dermatitis.
- Inhaled:** Low irritant dust- highly irritating vapours. . Over exposure at high levels may result in irritation of the nose and throat with coughing. If heated, pungent, strongly irritating and toxic vapours are evolved. Over exposure at high levels may result in breathing difficulties (with asthma-like symptoms), pulmonary oedema and unconsciousness.

**First Aid Measures:**

- Swallowed:** Never give anything by mouth to an unconscious person. If large quantities have been swallowed give 1 or 2 glasses of fluids to dilute (if conscious), rinse mouth but DO NOT induce vomiting – seek medical attention.
- Eye:** Immediately flush with large amounts of water for 15 minutes, holding eyelids open if necessary – seek medical attention.
- Skin:** Remove contaminated clothing then wash affected area with water and then soap and water, if it causes an irritation. Seek medical attention if required. Wash hands thoroughly before eating.
- Inhaled:** If ill effects occur, remove to fresh air – lay patient down and keep warm and quiet. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical attention immediately.

**5: FIRE FIGHTING MEASURES**

Flammable: potentially explosive dust Evacuate area and contact emergency services. Toxic gases (sulfur dioxide) may be evolved when heated. Remain upwind and notify those downwind of hazard.

Hazard Type: This formed formulation of sulphur is not considered combustible. Concentration 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. CO2 or dry powder extinguishers for small fires. Small fires may be smothered with sand, lime or more Sulphur 90. Use waterfog to cool intact containers and nearby storage areas.

Precautions for Firefighters and Special Protective Clothing: Full protective clothing and self-contained breathing apparatus.

HAZCHEM Code: 2Z

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## **6: ACCIDENTIAL RELEASE MEASURES**

Personal Precautions, protective equipment and emergency procedures: If spilt (bulk), contact emergency services if appropriate. Wear dust proof goggles, protective gloves (heat resistant if molton), a Type E-Class P2 ( Sulfur dioxide and Particulate) respirator or full face air-line respirator, coveralls and boots. Ventilate and clear area of unprotected personnel. Eliminate ignition sources. 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. Avoid dust generation. Absorb spill with sand or similar, collect and place in sealed container for disposal.

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. Sweep up as much as possible. Dispose according to section 13.

## **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. Avoid breathing dust and keep protective clothing as free from dust as possible.

Storage: Keep out of reach of children. Store in cool, dry, well-ventilated area, removed from oxidizing agents, halogens, carbides, ammonia, metals, direct sunlight, heat or ignition sources and foodstuffs. Ensure containers are adequately labeled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should be well ventilated. Store in accordance with NZS 8409 Management or Agrichemicals. Do not store with Class 3 liquids, or Class 5 substances such as Oxidising fertilisers. Sulphur 90 becomes corrosive to metals when stored wet and will break down when exposed to moisture or water.

## **8: EXPOSURE CONTROL/PERSONAL PROTECTION**

Exposure Limits: 10 mg/m<sup>3</sup> Nuisance dust.

Engineering Controls: Do not inhale dust or vapour. Use in well ventilated areas – open doors and windows. In poorly ventilated areas, mechanical extraction ventilation at source is recommended.

Respiratory: Dust type respirators shall be provided for dusty conditions. Breathing apparatus must be available on site for use in the event of a fire.

Eye: Dust proof goggles or mask with tight fitting frames should be used in dusty working conditions.

Skin: Overalls, roll down sleeves and gather trousers at the ankle. Rubber gloves, approved dust and mist respirator.

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.

## 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Yellow brown pellet or granule
Odour:	Slight odour -
Specific Gravity:	2.07
Colour:	Yellow pellet
Flash Point:	207C
Melting Point/Range:	119C
Freezing Point/Range:	Not available
Flammability Limits:	Flammable
Auto Ignition Temp:	Not available
Description:	Yellow brown pellet, dust or granular
pH:	Neutral when dry
Boiling Point:	444°C
Upper and Lower Explosive Limits:	LEL 35mgcubic metre UEL 1400 gm/cu metre (dust)
Vapour Pressure:	Solid: Less than 0.0001mm. Hg at 20°C.
Water Solubility:	45% at 0°C

## 10: STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

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).

## 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<sub>x</sub>) 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:

Not Applicable.

## 12: ECOLOGICAL INFORMATION

Avoid washing excessive amounts into streams and waterways. Always use recommendations as outlined in the New Zealand Fertiliser manufacturers research association "Code of practice for Fertiliser Use".

### **13. DISPOSAL INFORMATION**

Disposal Method: Ensure product is covered with moist soil to prevent dust generation and dispose of to approved Council landfill. 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.

### **14: TRANSPORT INFORMATION**

Class 4.1 Flammable solid. Do not transport with chemicals of class 1 (explosives), 2.1 (flammable gases), 4.2 (spontaneously combustibles), 5.1 (Oxidising agents), 5.2 (organic peroxides), 7 (radioactives) and foodstuffs.

### **15: REGULATORY INFORMATION**

This substance is NOT classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017.

EPA Approval Code: N/A

HSNO Classification: N/A

### **16: OTHER INFORMATION**

While FWDL believes that the information contained herein is based on data considered accurate, no warranty or representation is expressed or implied for which FWDL assumes a legal responsibility. No reliance should be placed upon the information without it first being given due consideration, investigation and verification.