

### 1. IDENTIFICATION

<b>Product Name</b>	<b>Sulphur Powder Oil Treated</b>
<b>Other Names</b>	Brimstone / Process Oil; Sulfur / Process Oil
<b>Uses</b>	Rubber and tire vulcanising
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	No Data Available
<b>Chemical Name</b>	Sulphur Powder Oil Treated
<b>Product Description</b>	Oil treated Sulfur

#### Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Pty Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

#### Emergency Contact Details



*For emergencies only; DO NOT contact these companies for general product advice.*

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

### 2. HAZARD IDENTIFICATION

**Poisons Schedule (Aust)** Not Scheduled

#### Globally Harmonised System

<b>Hazard Classification</b>	Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)	
<b>Hazard Categories</b>	Skin Corrosion/Irritation - Category 2 Flammable Solids - Category 2	
<b>Pictograms</b>	 	
<b>Signal Word</b>	Warning	
<b>Hazard Statements</b>	<b>H228</b>	Flammable solid.
	<b>H315</b>	Causes skin irritation.
<b>Precautionary Statements</b>	Prevention	<b>P210</b> Keep away from heat/sparks/open flames/hot surfaces. No smoking. <b>P240</b> Ground/bond container and receiving equipment. <b>P241</b> Use explosion-proof electrical/ventilating/lighting and all other equipment. <b>P280</b> Wear protective gloves/protective clothing/eye protection/face protection.
	Response	<b>P302 + P352</b> IF ON SKIN: Wash with plenty of soap and water. <b>P332 + P313</b> If skin irritation occurs: Get medical advice/attention. <b>P362</b> Take off contaminated clothing and wash before reuse. <b>P370 + P378</b> In case of fire: Use foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only for extinction.

#### National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**Dangerous Goods Classification** Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

#### Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

<b>HSNO Classifications</b>	Physical Hazards	<b>4.1.1B</b>	Readily combustible solids and solids that may cause fire through friction: low hazard
	Health Hazards	<b>6.4A</b>	Substances that are irritating to the eye

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sulfur	No Data Available	7704-34-9	99 %
Process Oil	No Data Available	Confidential	1 %

### 4. FIRST AID MEASURES

*Description of necessary measures according to routes of exposure*

<b>Swallowed</b>	Never give anything by mouth to an unconscious person. Rinse mouth. Call a Poison Centre or doctor/physician if you feel unwell.
<b>Eye</b>	Wash eyes immediately with large amounts of water or normal saline for at least 15 minutes. Get medical attention immediately.
<b>Skin</b>	Wash with soap or mild detergent and large amounts of water for at least 15 minutes. Take off contaminated clothing and shoes immediately, and wash before reuse. If skin irritation occurs, get medical advice/attention.
<b>Inhaled</b>	Remove person from exposure to fresh air immediately. If not breathing, give artificial respiration. Administer oxygen if breathing is difficult. Provide symptomatic/supportive care as necessary. Keep victim warm and quiet – Obtain immediate medical care.
<b>Advice to Doctor</b>	Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves. Treatment based on sound judgement of physician and individual reactions of patient.
<b>Medical Conditions Aggravated by Exposure</b>	No information available.

## 5. FIRE FIGHTING MEASURES

<b>General Measures</b>	If safe to do so, move undamaged containers from fire area. Cool containers with flooding quantities of water until well after fire is out.
<b>Flammability Conditions</b>	Flammable solid.
<b>Extinguishing Media</b>	Use water fog, foam, sand or soil. Don't use high pressure water.
<b>Fire and Explosion Hazard</b>	May be ignited by friction, heat, sparks or flame. Dust may form explosive mixtures with air.
<b>Hazardous Products of Combustion</b>	Decomposition in fire may produce toxic and corrosive gases (Sulfur dioxide).
<b>Personal Protective Equipment</b>	Firefighters should wear full impervious protective clothing, including self-contained breathing equipment for toxic and corrosive Sulfur dioxide. Structural firefighter's uniform may provide limited protection.
<b>Flash Point</b>	218 °C @ 761 mm Hg
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available
<b>Hazchem Code</b>	1Z

## 6. ACCIDENTAL RELEASE MEASURES

<b>General Response Procedure</b>	ELIMINATE all ignition sources (no smoking, flares, sparks or flame). Prevent dust cloud. Do not touch or walk through spilled material.
<b>Clean Up Procedures</b>	Use clean non-sparking tools to collect spillage and place it into loosely-covered metal or plastic containers for later disposal.
<b>Containment</b>	Dike for later disposal. Prevent entry into waterways, drains or confined areas.
<b>Environmental Precautionary Measures</b>	Prevent the material from entering drains or water courses.
<b>Evacuation Criteria</b>	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground.
<b>Personal Precautionary Measures</b>	Wear appropriate clothing and respiratory protection (see Section 8).

## 7. HANDLING AND STORAGE

<b>Handling</b>	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Keep away from heat/sparks/open flames/hot surfaces – No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Apply local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. Ground/bond container and receiving
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equipment (electrostatically sensitive material). Use explosion-proof electrical/ventilating/lighting equipment if dust clouds can occur.

<b>Storage</b>	Store locked up. Store in a dry, well-ventilated place. Keep container tightly closed when not in use. Keep away from heat/sparks/open flames/hot surfaces. Keep away from halide, strong acid, alkali, oxidizer, etc.
<b>Container</b>	Store in original packaging as approved by manufacturer.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	No Exposure Standard available for this specific product. Safe Work Australia Exposure Standard for Rouge dust (inspirable dust): TWA = 10 mg/m <sup>3</sup> Time weighted average exposure standard (TWA) means the average airborne concentration of a substance over an eight-hour working day, for a five-day working week.
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available.
<b>Engineering Measures</b>	Local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. Use explosion-proof electrical/ventilating/lighting equipment.
<b>Personal Protection Equipment</b>	RESPIRATOR: Wear appropriate respiratory protection and dust-proof mask (AS 1715/1716). EYES: Wear safety glasses or goggles (AS 1336/1337). HANDS: Protective gloves (AS 2161). CLOTHING: Wear appropriate chemical resistant clothing and safety shoes (AS 3765/2210).
<b>Special Hazards Precautions</b>	May form combustible dust concentration in the air - Keep away from heat/sparks/open flames. No smoking. Take precautionary measures against static discharge.
<b>Work Hygienic Practices</b>	Do not eat, drink or smoke when using this product. Avoid breathing dust. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Take off contaminated clothing and wash before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid
<b>Appearance</b>	Powder
<b>Odour</b>	Odourless
<b>Colour</b>	Lemon yellow
<b>pH</b>	No Data Available
<b>Vapour Pressure</b>	0.00021 Pa (@ 25 °C)
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling Point</b>	445 °C
<b>Melting Point</b>	113 °C
<b>Freezing Point</b>	113 °C
<b>Solubility</b>	0.005 mg/L 22°C
<b>Specific Gravity</b>	2.07 g/cm <sup>3</sup>
<b>Flash Point</b>	218 °C @ 761 mm Hg
<b>Auto Ignition Temp</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available
<b>Bulk Density</b>	No Data Available
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	No Data Available
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	32.07
<b>Net Propellant Weight</b>	No Data Available

<b>Octanol Water Coefficient</b>	No Data Available
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	No Data Available
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	No Data Available
<b>Volatile Percent</b>	No Data Available
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	No Data Available
<b>Potential for Dust Explosion</b>	May form combustible dust concentration in the air.
<b>Fast or Intensely Burning Characteristics</b>	No information available.
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No information available.
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No information available.
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	Stirring, transport and feeding of product produces static electricity in dry condition.
<b>Reactions That Release Gases or Vapours</b>	No information available.
<b>Release of Invisible Flammable Vapours and Gases</b>	No information available.

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	This material is stable under recommended storage and handling conditions.
<b>Conditions to Avoid</b>	Avoid heat, flames, sparks and other sources of ignition.
<b>Materials to Avoid</b>	Metallic salt, base, oxidizer, halide, flammable materials, metallic oxide, reductant.
<b>Hazardous Decomposition Products</b>	Toxic and corrosive Sulfur dioxide.
<b>Hazardous Polymerisation</b>	No information available.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	Skin corrosion/irritation: Irritating. Serious eye damage/eye irritation (Draize test): Non-irritating. Skin sensitization (Patch test): Non-sensitising.
<b>Acute</b>	
<b>Ingestion</b>	Oral - Rat LD50 >2,000 mg/kg
<b>Inhalation</b>	Inhalation - Rat LD50 >5.43 g/m3
<b>Other</b>	Dermal - Rat LD50 >2,000 mg/L
<b>Carcinogen Category</b>	None

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	No information available.
<b>Persistence/Degradability</b>	No information available.

<b>Mobility</b>	No information available.
<b>Environmental Fate</b>	No information available.
<b>Bioaccumulation Potential</b>	No information available.
<b>Environmental Impact</b>	No Data Available

### 13. DISPOSAL CONSIDERATIONS

<b>General Information</b>	Dispose of contents/container in accordance with all local, state and federal regulations.
<b>Special Precautions for Land Fill</b>	Contact a specialist disposal company or the local waste regulator for advice. Bury at approved landfill. DO NOT burn at normal incinerator.

### 14. TRANSPORT INFORMATION

#### Land Transport (Australia)

ADG Code

<b>Proper Shipping Name</b>	SULPHUR
<b>Class</b>	4.1 Flammable Solids
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	20 Solids - Flammable
<b>UN Number</b>	1350
<b>Hazchem</b>	1Z
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

#### Land Transport (Malaysia)

ADR

<b>Proper Shipping Name</b>	SULPHUR
<b>Class</b>	4.1 Flammable Solids
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	20 Solids - Flammable
<b>UN Number</b>	1350
<b>Hazchem</b>	1Z
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

#### Land Transport (New Zealand)

NZS5433

<b>Proper Shipping Name</b>	SULPHUR
<b>Class</b>	4.1 Flammable Solids
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	20 Solids - Flammable
<b>UN Number</b>	1350
<b>Hazchem</b>	1Z
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

## Land Transport (United States of America)

US DOT

<b>Proper Shipping Name</b>	SULPHUR
<b>Class</b>	4.1 Flammable Solids
<b>Subsidiary Risk(s)</b>	No Data Available
<b>ERG</b>	133 Flammable Solids
<b>UN Number</b>	1350
<b>Hazchem</b>	1Z
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

## Sea Transport

IMDG Code

<b>Proper Shipping Name</b>	SULPHUR
<b>Class</b>	4.1 Flammable Solids
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	1350
<b>Hazchem</b>	1Z
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available
<b>EMS</b>	F-A,S
<b>Marine Pollutant</b>	No

## Air Transport

IATA DGR

<b>Proper Shipping Name</b>	SULPHUR
<b>Class</b>	4.1 Flammable Solids
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	1350
<b>Hazchem</b>	1Z
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

## National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

<b>Dangerous Goods Classification</b>	Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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## 15. REGULATORY INFORMATION

<b>General Information</b>	No Data Available
<b>Poisons Schedule (Aust)</b>	Not Scheduled

## Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code HSR001284

## National/Regional Inventories

Australia (AICS)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Listed
China (IECSC)	Listed
Europe (EINECS)	231-722-6
Europe (REACH)	01-2119487295-27-XXXX
Japan (ENCS/METI)	Not Listed
Korea (KECI)	97-3-139
Malaysia (EHS Register)	Listed
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Listed
USA (TSCA)	Listed

## 16. OTHER INFORMATION

**Related Product Codes** SULPHO1701, SULPHO1703, SULPHO1711, SULPHO1712, SULPHO1800, SULPHO8700, SULPHO8701, SULPHO8702, SULPHU0200, SULPHU0201, SULPHU1703, SULPHU1704, SULPHU3200, SULPHU8800

**Revision** 3

**Revision Date** 01 Jan 2015

**Key/Legend**

- < Less Than
- > Greater Than
- AICS** Australian Inventory of Chemical Substances
- atm** Atmosphere
- CAS** Chemical Abstracts Service (Registry Number)
- cm<sup>2</sup>** Square Centimetres
- CO<sub>2</sub>** Carbon Dioxide
- COD** Chemical Oxygen Demand
- deg C (°C)** Degrees Celcius
- EPA (New Zealand)** Environmental Protection Authority of New Zealand
- deg F (°F)** Degrees Farenheit
- g** Grams
- g/cm<sup>3</sup>** Grams per Cubic Centimetre
- g/l** Grams per Litre
- HSNO** Hazardous Substance and New Organism
- IDLH** Immediately Dangerous to Life and Health
- immiscible** Liquids are insoluable in each other.
- inHg** Inch of Mercury
- inH<sub>2</sub>O** Inch of Water
- K** Kelvin
- kg** Kilogram



**kg/m<sup>3</sup>** Kilograms per Cubic Metre

**lb** Pound

**LC50** LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

**LD50** LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

**ltr** or **L** Litre

**m<sup>3</sup>** Cubic Metre

**mbar** Millibar

**mg** Milligram

**mg/24H** Milligrams per 24 Hours

**mg/kg** Milligrams per Kilogram

**mg/m<sup>3</sup>** Milligrams per Cubic Metre

**Misc** or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.

**mm** Millimetre

**mmH<sub>2</sub>O** Millimetres of Water

**mPa.s** Millipascals per Second

**N/A** Not Applicable

**NIOSH** National Institute for Occupational Safety and Health

**NOHSC** National Occupational Health and Safety Commission

**OECD** Organisation for Economic Co-operation and Development

**Oz** Ounce

**PEL** Permissible Exposure Limit

**Pa** Pascal

**ppb** Parts per Billion

**ppm** Parts per Million

**ppm/2h** Parts per Million per 2 Hours

**ppm/6h** Parts per Million per 6 Hours

**psi** Pounds per Square Inch

**R** Rankine

**RCP** Reciprocal Calculation Procedure

**STEL** Short Term Exposure Limit

**TLV** Threshold Limit Value

**tne** Tonne

**TWA** Time Weighted Average

**ug/24H** Micrograms per 24 Hours

**UN** United Nations

**wt** Weight