

SAFETY DATA SHEET

Date of Issue: February 2004
Revision: December 2020

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

1.1 Product Identifier: **YELLOW SULPHUR**
1.2 Relevant uses of the substance or mixture and uses advised against:
 Fertiliser supplement
1.3 Manufacturer/Distributor: Vitax Limited, Owen Street, Coalville LE67 3DE UK
 Tel: +44(0) 1530 510060 Email: info@vitax.co.uk
1.4 Emergency Contact: Tel: 01530 510060 (Office Hours)
IRL ONLY: In the event of emergency, call the National Poisons Information Centre, Beaumont Hospital at 01 809 2166 or 01 837 9964.

2. HAZARDS IDENTIFICATION

2.1 Classification: **Classification according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)**
 Skin.Irrit. 2 H315: Irritating to skin.
2.2 Label Elements: Contains 97% Sulphur (EC No. 231-722-6)



Signal word: Warning
Hazard statements: H315: Irritating to skin.
Precautionary Statements P101 Read label before use
 P102 Keep out of reach of children
 P103 If medical advice is needed, have product label or container at hand
 P280: Wear protective gloves/protective clothing.
 P302+P352: IF ON SKIN: Wash with plenty of soap and water.
 P332+P313: If skin irritation occurs: Get medical advice/attention.
2.3 Other Hazards: n/a.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical Name	CAS-No./ EINECS-No.	Annex Index or REACH number	Symbol(s) and Phrases	Precautionary Statements:	Concentration [%]
Sulphur	CAS No. 7704-34-9 EC No. 231-722-6	01-2119487295-27-0005 REACH registration number	GHS07 Skin Irrit. 2 H315: Causes skin irritation	P273 P280 P302/352 P332+P313	97

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

Eye contact – Rinse eyes cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. . Get medical attention if irritation develops or persists.
Skin contact – Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if skin irritation develops or persists.
Ingestion – Wash out mouth with water and seek medical advice.
Inhalation – Remove the affected person immediately to fresh air. Get medical attention if needed.

4.2 Most important symptoms and effects, both acute and delayed

Not available

4.3 Indication of immediate medical attention and special treatment needed:

In case of shortness of breath, give oxygen. Keep patient warm. Keep under observation. Symptoms may be delayed. Additional medical guidance is available to doctors from the National Poisons Information Service.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media: Extinguish with a fine water spray or fog - not a water jet. Small sulphur fires can be smothered with an application of earth or sand.
5.2 Special hazards arising from substance or mixture:



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5.3 Advice for firefighters:

Irritation of the lung and eye may take place with combustion forms of gaseous oxides of sulphur. Dust can explode in certain conditions.

Wear self-contained breathing apparatus in confined spaces. Contain contaminated run-off.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions:

Avoid generation of dusts; do not inhale dusts. Evacuate the danger area, observe emergency procedures, consult an expert. Personnel should wear full protective clothing: chemical gloves and goggles, anti-static, anti-spark footwear, and regularly laundered overalls. Dust masks and suitable breathing apparatus should also be used if there is a risk of exposure to fumes or combustion products.

6.2 Environmental precautions:

The relevant authorities must be informed should spillage cause the contamination of vegetation, drains, rivers, streams etc.

6.3 Methods and material for containment and cleaning up:

Any spillage must be swept up, placed in a secure plastic container and taken to a safe place to be disposed of by a licensed contractor under the Waste Disposal Regulations.

7. HANDLING & STORAGE

7.1 Precautions for Safe Handling:

Wear personal protective clothing and equipment. Ensure adequate ventilation. Do not get in eyes, on skin or on clothing. Avoid ingestion and inhalation. Make sure that eye baths are available wherever accidental exposure may occur so that quick treatment can be given. Avoid dust formation. Keep away from open flames, hot surfaces and sources of ignition.

7.2 Conditions for Safe Storage:

Store in cool, dry, and well ventilated premises away from other flammable materials. Keep away from open flames, hot surfaces and sources of ignition.

7.3 Specific end use:

Fertiliser.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters:

Occupational exposure limits:

Occupation Exposure Limits 8-hour TWA values: For sulphur dust, total dust 10 mg/cubic metre; respirable dust 4 mg/cubic metre. For sulphur dioxide, 5.3 mg/cubic metre (2 ppm), [and 10 minute TWA value 13 mg/cubic metre (5 ppm)]

8.2 Exposure Controls:

Personal protective equipment:

General protective and hygienic measures: Carry out a suitable and sufficient Risk Assessment. Personal equipment might include: Chemical gloves and goggles; Anti-static, anti-spark footwear; Overalls regularly laundered to avoid accumulation of dust particles; Dust masks and suitable breathing apparatus should be used where there is a risk of exposure to fumes or combustion products.

Breathing equipment:

Dust Mask FFP2 required when dusts are generated. Not required if all workplace limits are observed and good ventilation is ensured.

Protection of hands:

Requirements according to EN 420. Check protective gloves prior to each use for their proper condition. Preventive skin protection by use of skin protecting agents is recommended.

Material of gloves:

Nitrile rubber, glove thickness: 0.11mm

Penetration time of glove material:

> 480 min

Eye protection:

Safety glasses with side-shields.

Body protection:

Protective work clothing.

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance	yellow powder
Odour	characteristic weak sulphurous
pH	insoluble in water
Boiling point	440 deg C
Melting point	119 deg C
Flash point	188 deg C
Flammability	flammable solid
Autoflammability	235 deg C



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Explosivity	see section 10
Oxidising properties	see section 10
Vapour Pressure	0.042 mbar at 120 deg C
Relative density	400-500 kg/m ³
Solubility	insoluble in water
9.2 Other information:	none

10. STABILITY & REACTIVITY

10.1 Reactivity:	Risk of explosion in dust filled atmosphere.
10.2 Stability:	Stable under normal conditions.
10.3 Possibility of hazardous reactions	When mixed with oxidising materials like chlorates, perchlorates, permanganates and nitrates, sulphur forms a highly sensitive and explosive substance. Other chemicals: Other substances that may initiate a dangerous reaction are: halogens, carbides, halogenates; many metals but especially alkali metals and alkaline earths; charcoal, phosphorus, fluorides, and nitrides; sulphur dichloride; halogenates.
10.4 Conditions to Avoid:	Store away from heat, open flames and sources of ignition.
10.5 Incompatible materials:	Copper and mild steel.
10.6 Hazardous Decomposition Products:	Decomposes at high temperatures producing toxic hydrogen sulphide and sulphur oxide fumes.

11. TOXICOLOGICAL INFORMATION

11.2 Information on toxicological effects

Acute toxicity	
Acute oral toxicity	LD50 > 5000 mg/kg Species rat
Source IUCLID	
Acute Dermal Toxicity	LD50 >2000 mg/kg Species rabbit
Source IUCLID	
Acute Inhalation Toxicity	LC50 9.23 mg/L Duration of exposure 4 hours Species rat
Source IUCLID	

Information on likely routes of exposure

Skin -	causes skin irritation
Eyes -	slight irritation. Eye contact may cause mechanical irritation through dust particles
Inhalation of dusts-	May irritate the respiratory tract.
Sensitisation-	non-sensitising.

Effects after repeated or prolonged exposure (subacute, subchronic, chronic)

Genotoxicity: in vitro Ames Test- Salmonella typhimurium. Result negative

Specific target organ toxicity – single exposure

The substance is not classified as a specific target organ toxicant, single exposure.

Specific target organ toxicity – repeated exposure

The substance is not classified as a specific target organ toxicant, repeated exposure.

Aspiration hazard No aspiration toxicity classification

11.2 Other Information

Ingestion:	If swallowed Sulphur is poorly absorbed. There are no known systemic effects from ingestion of dust or vapour below 175 mg/kg (rabbit)
On the Eyes:	Several hours after exposure to dust or vapour, irritation and lachrymation may occur. [Blurred vision, conjunctivitis and photophobia may follow contact with hydrogen sulphide, a potential by product of sulphur]
On Skin:	No effects have been documented following sulphur on the skin. There are no known systemic effects following the skin absorption of dust or vapour
Inhalation:	No acute effects have been documented following inhalation of sulphur dust. Dust and vapour may cause irritation of the mucus membranes in cases of chronic exposure. Chronic exposure to hydrogen sulphide may give headaches, cause bronchitis or rhinitis. The acute effect of the inhalation of hydrogen sulphide is headache, excitement, diarrhoea, staggering, even death.
Handle in accordance with good industrial hygiene and safety practice.	

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to Fish	LC50 Brachydanio rerio (zebra fish) 866 mg/L Duration of exposure 96 hours (source IUCLID)
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Toxicity to Daphnia	LC50 Oncorhynchus mykiss (rainbow trout) >180mg/L Duration of exposure 96 hours.
Toxicity to Bacteria	EC50 Daphnia magna (water flea) >10,000 mg/L Exposure time 24 hours.
12.2 Persistence and Degradability	EC50 Activated sludge 1,900mg/L Exposure time 3hours. Method ISO 8192
12.3 Bioaccumulative potential	Sulphur is a natural component in water and soil.
12.4 Mobility in soil	Sulphur has low potential for bioaccumulation.
12.5 Results of PBT and vPvB assessment	Sulphur has slight mobility in soil.
12.6 Other adverse effects	Sulphur does not meet the PBT criteria (persistent/bioaccumulative/toxic) and vPvB criteria: self classification, as chemical safety assessment not required or previously conducted.
No ecological problems are expected, when the product is handled and used with due care and attention.	
13. DISPOSAL CONSIDERATIONS	
13.1 Waste treatment methods:	Waste is disposed of by decontamination in accordance with national requirements and local regulations or via a licensed waste disposal contractor. Identify the hazards of waste handling and undertake required safety measures. Personal protective equipment is necessary for personnel involved in waste disposal.
14. TRANSPORT INFORMATION	
General	This product is packed in accordance with the Limited Quantity Provisions of CDGCP2, ADR and IMDG. These provisions allow transport to be exempt from control providing that they are labelled in accordance with the requirements of these regulations to show that they are being transported as Limited Quantities. Product not so packed and labelled must show the following.
14.1 UN-Number	
ADR, IMDG, IATA :	1350.
14.2 UN proper shipping name	
ADR, IMDG, IATA:	SULPHUR
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class:	4.1.
14.4 Packaging Group	
ADR, IMDG, IATA:	III.
14.5 Environmental hazards:	Not a marine pollutant.
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
15. REGULATORY INFORMATION	
15.1 Safety, health and environmental regulations/legislation specific to this substance:	EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
15.2 Chemical Safety Assessment	not undertaken for this material
16. OTHER INFORMATION	
Reason for revision:	Replaces version dated August 2015. 1.4 Emergency contact amended.
Liability	The product label provides information on the use of the product: do not use otherwise, unless you have assessed any potential hazard involved and the safety measures required. Prepared by VITAX LTD, for Health and Safety purposes from the best knowledge available at the time of printing.