

# SAFETY DATA SHEET - SULFASTIM

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## 1. Identification of the substance/preparation and of the company/undertaking.

**PRODUCT NAME** SULFASTIM

**COMPANY** Mandops (UK) Limited, 36 Leigh Road, Eastleigh, Hampshire, SO50 9DT  
Tel: 023 8064 1826  
Fax: 023 8062 9106  
Emergency Tel: 07659 109600 (outside office hours)

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## 2. Composition/information on ingredients

<b>ACTIVE INGREDIENT</b>	Ammonium thiosulphate solution	Ammonia solution
<b>CAS NO</b>	[7781-18-8]	[1336-21-6]
<b>EC NO</b>	231-982-0	215-647-6

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## 3. Hazards identification

**FIRE** Non-flammable.

**PHYSICAL/CHEMICAL** Reacts with oxidising agents and acids.

**HEALTH** Irritating to eyes, respiratory system and skin.

**ENVIRONMENT** Low - biodegradable.

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## 4. First aid measures

**EYES** Contact with eyes may cause SEVERE IRRITATION. Keeping eyelids open, irrigate well with copious amounts of eye wash solution or clean water, without delay, for 15 minutes minimum. Obtain medical attention if symptoms persist.

**SKIN** Contact with skin may cause MODERATE IRRITATION. Remove contaminated clothing and wash skin immediately with soap and rinse with copious amounts of water. Obtain medical attention if irritation occurs **and** persists.

**INGESTION** Ingestion will cause burning of the throat. May cause nausea, vomiting and cyanosis if ingested in quantity. Do not induce vomiting. Wash out mouth with water and give plenty of water to drink. If vomiting occurs, place patient in the recovery position. Keep patient at rest and obtain medical attention at once.

**INHALATION** Inhalation of concentrated vapour may cause SEVERE IRRITATION of nose and respiratory system. May cause dizziness and headache. Remove to fresh air. If symptoms persist obtain medical attention.

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### 5. Fire-fighting measures

<b>EXPOSURE HAZARD</b>	If involved in a fire, although non-flammable, it will emit obnoxious and toxic fumes containing sulphur dioxide, hydrogen sulphide and ammonia.  <i>Firefighting personnel should wear standard chemical-resistant protective suit and self-contained breathing apparatus.</i>
<b>SUITABLE EXTINGUISHERS</b>	Fight fire with foam, water spray, carbon dioxide or dry powder, as suitable for other, combustible, materials involved .
<b>OTHER ADVICE</b>	If without risk, remove unopened packages from exposure to fire. Otherwise spray unopened containers with water to keep cool.

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### 6. Accidental release measures

<b>PERSONAL PRECAUTIONS</b>	Wear protective equipment described in Section 8. Do not eat drink or smoke. Avoid contact with skin and eyes. Ensure adequate ventilation.
<b>ENVIRONMENTAL PRECAUTIONS</b>	Prevent large spillages from entering drains or sewers (inform local water authority if this occurs).
<b>OTHER PRECAUTIONS</b>	Cordon off area and evacuate personnel if large spillage. Keep people and animals away.
<b>CLEAN-UP METHODS</b>	Dilute small spillages and flush to drain with copious amounts of water. Absorb and contain larger spillages with sand, earth or proprietary absorbent. Place waste in plastic drums or sealed containers for subsequent safe disposal (see Section 13).

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### 7. Handling and storage

<b>HANDLING</b>	No special precautions are necessary if unopened packs are handled with care. When handling in a usage context, wear full overall protective clothing, PVC or rubber gloves and boots. If exposed to high vapour concentration in a confined space, wear self contained breathing apparatus. In unventilated areas, wear fume mask. When handling in a spillage context, refer to Sections 3, 6 and 8. In all cases, before attempting to handle packages manually, refer to assessments made under the Manual Handling Regulations. Wash hands thoroughly before eating, drinking or smoking and after work.
<b>STORAGE</b>	Keep sealed in original containers. Store in frost-free conditions above 2EC. Store away from acids and oxidizing agents. Rotate stock and examine regularly for leakages.

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### 8. Exposure controls/personal protection

**ENGINEERING CONTROLS** Apply COSHH assessment according to standard (OES) EH 40/94.

**UK EH40 OCCUPATIONAL EXPOSURE STANDARDS**

National occupational exposure limits

Chemical name: Ammonium thiosulphate solution

OEL (UK): 17mg/m<sup>3</sup>/25 ppm as NH<sub>3</sub>, 8 hour TWA

Recommended monitoring: Draeger/Gastec tubes.

**RESPIRATORY**

Wear self contained breathing apparatus in confined conditions or fume mask to BS 2091.

**HANDS AND FEET**

Wear PVC or rubber gloves or gauntlets and boots.

**EYES AND FACE**

Wear face shield or goggles to BS 2092.

**SKIN**

Wear full chemical resistant non-adsorbent overalls.

**NOTE**

If possible decontaminate protective clothing before removal.

Some of the above protective equipment may be inappropriate when small quantities of product are involved. Obtain expert advice before disregarding.

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### 9. Physical and chemical properties

**APPEARANCE** Pale green, clear aqueous solution

**ODOUR** Strong pungent ammoniacal

**MELTING POINT** N/A

**FREEZING POINT** -2EC

**DENSITY (g/ml)** 1.28 @ 12EC

**SOLUBILITY IN WATER** Completely miscible

**pH (concentrate)** 7.0

**pH (1%)** 7.0

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### 10. Stability and reactivity

**STABILITY** Stable in normal ambient conditions. Avoid frost (for technical reasons).

**MATERIALS TO AVOID** Store away from oxidizing agents and acids. Avoid materials which react with water.

**HAZARDOUS DECOMPOSITION PRODUCTS** Sulphur dioxide, hydrogen sulphide and ammonia (see Section 5).

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## 11. Toxicological information

**ACUTE TOXICITY** No information available. Main effect will be the severe irritant effects of trace amounts of ammonia.

### ACUTE EXPOSURE EFFECTS

**INHALATION** Ammonia vapour is severely irritating to the respiratory system  
**EYES** Severe eye irritation  
**SKIN** Moderate skin irritation  
**INGESTION** Possible nausea, vomiting and cyanosis.

### CHRONIC TOXICITY

**CARCINOGENICITY** Ammonium thiosulphate is not reported to be carcinogenic.  
**MUTAGENICITY** Ammonium thiosulphate is not reported to be mutagenic.  
**REPROTOXICITY** Ammonium thiosulphate is not reported to be reprotoxic.

**OTHER** No data

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## 12. Ecological information

**AQUATIC TOXICITY** Low hazard

### DEGRADATION

**SOIL DT<sub>50</sub> (days)** No data, but ammonium thiosulphate rapidly degrades in soil.

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## 13. Disposal considerations

**PRODUCT** Flush small quantities to drain with copious amounts of water.  
Large quantities require controlled waste disposal in accordance with Control of Pollution Act 1974 and Special Waste Regulations 1980.

**PACKAGING** Uncontaminated outer packaging may be disposed of at an approved landfill site or by incineration. Contaminated or inner packaging should be disposed of as for product above.

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## 14. Transport information

**TRANSPORT** Material is not classified as hazardous or dangerous for transport according to current international regulations.

<b>UN-No</b>	<b>IMDG class</b>
<b>UN Class</b>	<b>IATA/ICAO Particulars</b>
<b>UN Packing Group</b>	<b>CDG-CPL Emergency Action Code</b>
<b>UN Danger Sign</b>	
<b>UN Subsidiary Hazard Sign</b>	
<b>ADR/RID - Description</b>	

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### 15. Regulatory information

<b>LABEL NAME</b>	SULFASTIM
<b>CLASSIFICATION</b>	Not classified by CHIP Regulations
<b>RISK SYMBOL</b>	None
<b>RISK PHRASES</b>	None
<b>SAFETY PHRASES</b>	S14 - KEEP AWAY FROM ACIDS AND OXIDIZING AGENTS S23 - KEEP AWAY FROM FUMES S37/39 - WEAR SUITABLE GLOVES AND EYE/FACE PROTECTION

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### 16. Other information

<b>THIS MATERIAL IS USED FOR</b>	Agricultural and horticultural foliar fertilizer
<b>SOURCES OF DATA</b>	Raw material suppliers and formulators= safety data sheets

This Safety Data Sheet is VERSION 1.

Prepared by: PH on 20.02.2003

Mandops have taken care to ensure the accuracy of the information given herein and provide this Safety Data Sheet as required by Directives 91/155/EEC and 93/112/EC but gives no warranty as to accuracy or completeness. Since the conditions of use of this product vary, and are not within the control of Mandops, the obligation to ensure safety rests with the user.