



SAFETY DATA SHEET

ORIGINAL

Based on Directive 91/155/EEC at req. of the Commission of the European Communities

SODIUM SULPHIDE 60%

1. Identification of the substance/preparation and the company

- 1.1 Identification of the substance or preparation:**
 Synonyms : sodium sulfide, hydrated, conc. water >=40%
 CAS no. : 001313-82-2
 EC index no. : 016-009-00-8 NFPA code : N.D.
 EINECS no. : N.A. Molecular weight : N.A.
 RTECS no. : N.A. Formula : N.A.
- 1.2 Company/undertaking identification:**
 TESSENDERLO CHEMIE
 Industriepark Schoonhees Zone 1
 B-3980 Tessenderlo, Belgium
 Tel. : (+32) 13-61 22 11 - Fax. : (+32) 13-67 37 49
- 1.3 Telephone number for emergency:**
 (+32) 14-58 45 45
 Information centre of dangerous goods (B.I.G.)
 Technische Schoolstraat 43A, B-2440 Geel, Belgium

2. Composition/information on ingredients

Hazardous ingredients	CAS no.	Conc in %	Hazard class.	Risks (R-phrases)
Sodium sulphide	001313-82-2	60	C;N	31-34-50

3. Hazards identification

- Causes burns
- Corrosive to the skin
- Corrosive to the eyes
- Contact with acids liberates toxic gases
- Very toxic to aquatic organisms

4. First aid measures

- 4.1 Eye contact:**
 - Rinse immediately with plenty of water for 15 minutes
 - Do not apply neutralizing agents
 - Consult a doctor/medical service
- 4.2 Skin contact:**
 - Wash immediately with lots of water and soap for 15 minutes
 - Remove clothing while washing
 - Do not remove clothing if it sticks to the skin
 - Consult a doctor/medical service
- 4.3 After inhalation:**
 - Remove the victim into fresh air
 - Unconscious: maintain adequate airway and respiration
 - Consult a doctor/medical service
- 4.4 After ingestion:**
 - Immediately give lots of water to drink
 - Never give water to an unconscious person
 - Do not allow vomiting
 - Consult a doctor/medical service



L.J. REYSKENS
 Sales Assistant

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5. Fire-fighting measures

5.1 Suitable extinguishing media:

- Water spray
- Polyvalent foam
- ABC powder
- Carbon dioxide

5.2 Unsuitable extinguishing media:

- No data available

5.3 Special exposure hazards:

- It's dust is explosive with air
- May burn

5.4 Instructions:

- Cool tanks/drums with water spray/remove them into safety
- Dilute toxic gases with water spray
- Take account of toxic firefighting water

5.5 Special protective equipment for firefighters:

- Corrosionproof suit
- Heat/fire exposure: compressed air/oxygen apparatus

6. Accidental release measures

6.1 Personal protection: see 8.3

6.2 Environmental precautions:

- Prevent soil and water pollution
- Substance must not be discharged into the sewer
- Knock down/dilute dust cloud with water spray
- Contain leaking substance, pump over in suitable containers
- Dam up the solid spill

6.3 Clean-up:

- Stop dust cloud by covering with sand/earth
- Scoop solid spill into closing containers
- Powdered: do not use compressed air for pumping over spills
- Carefully collect the spill/leftovers
- Leftovers: neutralize with soda (sodium carbonate)
- Take collected spill to manufacturer/competent authority
- Clean contaminated surfaces with an excess of water

7. Handling and storage

7.1 Handling:

- Observe strict hygiene
- Avoid raising dust
- Do not discharge the waste into the drain
- Remove contaminated clothing immediately
- Clean contaminated clothing

7.2 Storage:

- Keep container tightly closed
- Store in a dry area
- Store in a dark area
- Keep away from: heat sources, acids, oxidizing agents, metals

Storage temperature: N.D.

7.3 Materials for packaging:

- suitable : synthetic material, glass, stoneware/porcelain
- to avoid : aluminium, copper, zinc, steel



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8. Exposure controls/Personal protection

8.1 Recommended engineering controls:

- Measure the concentration in the air regularly
- Work under local exhaust/ventilation

Sampling methods: No data available

8.2 Exposure limits:

TLV-TWA : not listed

8.3 Personal protection:

eye protection:

- Face shield
- In case of dust production: protective goggles

hand protection:

- Gloves

skin protection:

- Corrosionproof clothing
- In case of dust production: head/neck protection

materials for protective clothing:

- No data available

respiratory protection:

- On heating: gas mask with filter type B
- Dust production: dust mask with filter type P3

9. Physical and chemical properties

9.1 Appearance (at 20°C)	:	Solid / Scales	
9.2 Odour	:	Repulsive	
9.3 Colour	:	Yellow	
9.4 pH value	:	13 (10 g/l)	
9.5 Boiling point/boiling range	:	160/170	°C
9.6 Melting point/melting range	:	85	°C
9.7 Flashpoint	:	N.D.	°C
9.8 Auto-ignition point	:	480	°C
9.9 Explosion limits	:	N.D.	vol% (°C)
9.10 Vapour pressure (at 20°C)	:	N.D.	hPa
9.11 Relative density (at 20°C)	:	1.5	
9.12 Water solubility	(20°C) :	16	g/100 ml
	(60°C) :	61	g/100 ml (Na ₂ S 100%)
9.13 Soluble in	:	N.D.	
9.14 Relative vapour density	:	N.D.	
9.15 Saturation concentration	:	N.D.	
9.16 Viscosity	:	N.D.	



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10. Stability and reactivity

10.1 Stability:

- Unstable on exposure to air

10.2 Reactivity/Hazardous decomposition products:

- Decomposes on exposure to temperature rise: release of toxic/combustible gases/vapours (hydrogen sulphide, sulphur dioxide)
- Reacts with (some) acids: release of toxic/combustible gases/vapours (hydrogen sulphide, sulphur dioxide)
- Reacts with (strong) oxidizers: release of toxic/combustible gases/vapours (hydrogen sulphide, sulphur dioxide)

10.3 Conditions/materials to avoid:

- Heat sources, acids, oxidizing agents, metals

11. Toxicological information

11.1 Acute toxicity:

LD50 oral rat	: N.D.	mg/kg
LD50 dermal rat	: N.D.	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LC50 inhalation rat	: N.D.	mg/l/4 h

11.2 Chronic toxicity:

EC carc. cat.: not listed
EC muta. cat.: not listed
EC repr. cat.: not listed
Carcinogenicity (TLV): not listed
IARC classification: not listed

11.3 Routes of exposure: ingestion, inhalation, eye and skin contact

11.4 Acute effects/symptoms:

- Corrosive to the skin
- Corrosive to the eyes

AFTER INHALATION OF DUST:

- Dry/sore throat
- Coughing

FOLLOWING SYMPTOMS MAY APPEAR LATER:

- Risk of lung oedema

AFTER CONTACT WITH WATER:

- Irritation of the respiratory tract
- Irritation of the nasal mucous membranes
- Runny nose
- Headache
- Nausea
- Vomiting
- Dizziness
- Disturbances of consciousness
- Respiratory difficulties

AFTER INGESTION:

- Burns to the gastric/intestinal mucosa
- Symptoms similar to those listed under inhalation

AFTER SKIN CONTACT:

- Caustic burns/corrosion of the skin

AFTER EYE CONTACT:

- Corrosion of the eye tissue
- Permanent eye damage
- Lacrimation
- Redness of the eye tissue
- Visual disturbances

11.5 Chronic effects:

ON CONTINUOUS EXPOSURE/CONTACT:

- Impaired memory
- Paralysis
- Impairment of the nervous system

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT:

- Skin rash/inflammation



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12. Ecological information

12.1 Mobility:

- Soluble in water

12.2 Biodegradation:

- soil: T_½ : N.D. days
BOD₅ : N.D. g O₂/g substance
COD : N.D. g O₂/g substance
- water: - Biodegradable in water
- test: 22%, 5 d., BOD

- ### 12.3 Bioaccumulation:
- log P_{ow} : N.D.
 - BCF : N.D.

12.4 Aquatic toxicity:

- LC50 (96 h): 0.0243 mg/l (PIMEPHALES PROMELAS)
- EC50 (48 h): 2.1 mg/l (DAPHNIA MAGNA)
- EC50 : 0.86 mg/l (ALGAE)

12.5 Other information:

- WGK: 2
- Effect on the ozone layer : N.D.
- Waste water purification : N.D.

13. Waste disposal considerations

13.1 Provisions relating to waste:

- Waste code (EC): 06 03 03
- Hazardous waste (91/689/EC)

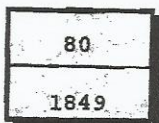
13.2 Disposal methods:

- Landfill or incinerate at an approved site in accordance with national and local regulations
- Neutralize
- Precipitate/make insoluble
- Remove to an authorized dump



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14. Transport information



- 14.1 Proper shipping name: UN 1849, Sodium sulphide, hydrated
- 14.2 Transport by road/rail (ADR/RID): class 8, 45b)1
Danger code: 80
Danger labels on tanks: 8
on packages: 8
- 14.3 Substance identification number (UN number): 1849
Packing: II
- 14.4 Maritime transport (IMDG code): class 8 p. 8227
EMS : 8-08
MFAG : 225
Marine pollutant: -
- 14.5 Inland navigation (ADNR): class 8, 45b)1
- 14.6 Air freight (ICAO): class 8
Instruction "passenger": 814/Y814
Instruction "cargo": 816
- 14.7 Other information: -

15. Regulatory information

Labelling in accordance with EC directives 67/548/EEC and 1999/45/EEC



Corrosive



Dangerous for the environment

- R31 : Contact with acids liberates toxic gases
R34 : Causes burns
R50 : Very toxic to aquatic organisms
- S(01/02) : (Keep locked up and out of reach of children)
S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S45 : In case of accident or if you feel unwell, seek medical advice (show the label where possible)
S61 : Avoid release to the environment. Refer to special instructions/safety data sheets.

16. Other information

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

N.A. = NOT APPLICABLE
N.D. = NOT DETERMINED
* = INTERNAL CLASSIFICATION

TLV : Threshold Limit Value - ACGIH USA 1999

MSDS established : 24-02-2000
Reference number : BIG\30126GB
Reason for revision :

