

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sodium sulphide solution 182 g Na₂S x xH₂O / l in water - stabilised with NaOH

Revision date: 01.02.2023

Product code: 34317

Page 1 of 11

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**Sodium sulphide solution 182 g Na₂S x xH₂O / l in water - stabilised with NaOH

UFI: N912-8373-500X-46X6

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name:	AnalytiChem GmbH	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
e-mail:	info@analytichem.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
e-mail:	produktsicherheit@analytichem.de	
Internet:	www.analytichem.de	
Responsible Department:	Abteilung Produktsicherheit	

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Met. Corr. 1; H290
Acute Tox. 4; H302
Acute Tox. 4; H312
Skin Corr. 1B; H314
Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

2.2. Label elements**Regulation (EC) No 1272/2008****Hazard components for labelling**

sodium sulphide

Signal word: Danger**Pictograms:**

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sodium sulphide solution 182 g Na₂S x xH₂O / l in water - stabilised with NaOH

Revision date: 01.02.2023

Product code: 34317

Page 2 of 11

Hazard statements

H290 May be corrosive to metals.
H302+H312 Harmful if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.

Special labelling of certain mixtures

EUH031 Contact with acids liberates toxic gas.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
27610-45-3	sodium sulphide			15 - < 20 %
	215-211-5	016-009-00-8	01-2119513694-38	
	Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Aquatic Acute 1; H311 H301 H314 H400 EUH031			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
27610-45-3	215-211-5	sodium sulphide	15 - < 20 %
	dermal: ATE = 300 mg/kg; oral: LD50 = > 46,4 - < 68,1 mg/kg		

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection!
Remove contaminated, saturated clothing immediately.

After inhalation

Provide fresh air.
Call a physician immediately.

After contact with skin

Wash immediately with: Water

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sodium sulphide solution 182 g Na₂S x xH₂O / l in water - stabilised with NaOH

Revision date: 01.02.2023

Product code: 34317

Page 3 of 11

Take off immediately all contaminated clothing and wash it before reuse.
Call a physician immediately.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
Remove contact lenses, if present and easy to do. Continue rinsing.
Protect uninjured eye.

After ingestion

Rinse mouth immediately and drink plenty of water.
Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Causes burns.

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products
In case of fire may be liberated:
Sulphur oxides
Hydrogen sulphide

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.
In case of fire and/or explosion do not breathe fumes.
Wear full chemical protective clothing.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Move undamaged containers from immediate hazard area if it can be done safely.
Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Corrosive to metals.
Do not breathe vapour.
Avoid contact with skin, eyes and clothes.

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sodium sulphide solution 182 g Na₂S x xH₂O / l in water - stabilised with NaOH

Revision date: 01.02.2023

Product code: 34317

Page 4 of 11

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Use personal protection equipment.

Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

Do not breathe vapour/aerosol. Use extractor hood (laboratory).

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

Further information on handling

Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary.

Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Corrosive to metals.

Unsuitable container/equipment material: Metal

Hints on joint storage

Keep away from: Acids

Further information on storage conditions

Keep container tightly closed.

Keep away from heat.

Protect from sunlight.

7.3. Specific end use(s)

Laboratory chemicals

Sodium sulphide solution 182 g Na₂S x xH₂O / l in water - stabilised with NaOH

Revision date: 01.02.2023

Product code: 34317

Page 5 of 11

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
27610-45-3	sodium sulphide			
Worker DNEL, long-term		inhalation	systemic	13,84 mg/m ³
Worker DNEL, long-term		inhalation	local	1,6 mg/m ³
Worker DNEL, acute		inhalation	local	3,2 mg/m ³

PNEC values

CAS No	Substance	Value
27610-45-3	sodium sulphide	
Freshwater		0,00027 mg/l
Freshwater (intermittent releases)		0,00027 mg/l
Marine water		0,00027 mg/l
Freshwater sediment		0,0176 mg/kg
Marine sediment		0,0176 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,016 mg/l

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sodium sulphide solution 182 g Na₂S x xH₂O / l in water - stabilised with NaOH

Revision date: 01.02.2023

Product code: 34317

Page 6 of 11

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet (>, <) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

Thermal hazards

No data available

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:		
Odour:	like: rotten eggs	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		No data available
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		14
Viscosity / kinematic:		No data available
Water solubility:		completely miscible
Solubility in other solvents		
	No data available	
Dissolution rate:		No data available
Partition coefficient n-octanol/water:		No data available
Dispersion stability:		No data available
Vapour pressure:		No data available
Vapour pressure:		No data available
Density:		1,1008 g/cm ³
Relative density:		No data available
Bulk density:		No data available
Relative vapour density:		No data available
Particle characteristics:		No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

No data available

Sodium sulphide solution 182 g Na₂S x xH₂O / l in water - stabilised with NaOH

Revision date: 01.02.2023

Product code: 34317

Page 7 of 11

Sustaining combustion:	No data available
Self-ignition temperature	
Solid:	No data available
Gas:	No data available
Oxidizing properties	
No data available	
Other safety characteristics	
Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	0%
Solid content:	0%
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
No data available:	
Viscosity / dynamic:	No data available
Flow time:	No data available

Further Information

Corrosive to metals.

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals.

10.2. Chemical stability

Protect against: Heat

10.3. Possibility of hazardous reactions

Contact with acids liberates toxic gas.

Oxidising agent

Aluminium

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Copper, Zinc, Aluminium, Iron.
metals (including their alloys)

10.6. Hazardous decomposition products

In case of fire may be liberated:

SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

Acute toxicity

Harmful if swallowed.

Harmful in contact with skin.

ATEmix calculated

ATE (oral) 582,4 mg/kg; ATE (dermal) 1747,2 mg/kg

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sodium sulphide solution 182 g Na₂S x xH₂O / l in water - stabilised with NaOH

Revision date: 01.02.2023

Product code: 34317

Page 8 of 11

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
27610-45-3	sodium sulphide				
	oral	LD50 > 46,4 - < 68,1 mg/kg	Rat	Study report (1986)	OECD Guideline 401
	dermal	ATE 300 mg/kg			

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

There are no data available on the preparation/mixture itself.

Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

Additional information on tests

There are no data available on the preparation/mixture itself.

Practical experience

There are no data available on the preparation/mixture itself.

11.2. Information on other hazards

Endocrine disrupting properties

There are no data available on the preparation/mixture itself.

Other information

There are no data available on the preparation/mixture itself.

Further information

There are no data available on the preparation/mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sodium sulphide solution 182 g Na₂S x xH₂O / l in water - stabilised with NaOH

Revision date: 01.02.2023

Product code: 34317

Page 9 of 11

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
27610-45-3	sodium sulphide					
	Acute fish toxicity	LC50 mg/l	7960	96 h	Pimephales promelas	Environmental Toxicology and Chemistry 1 other: US EPA guidelines for whole efflu
	Acute crustacea toxicity	EC50 mg/l	3080	48 h	Ceriodaphnia dubia	Environmental Toxicology and Chemistry 1 other: US EPA guidelines for whole efflu
	Fish toxicity	NOEC mg/l	>= 0,009	28 d	Lepomis macrochirus	Transactions of the American Fisheries S In this study, bluegill juveniles were e

12.2. Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

BCF

CAS No	Chemical name	BCF	Species	Source
27610-45-3	sodium sulphide	0,13	other aquatic crustacea: Urechis caupo	Physiological and Bi

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Discharge into the environment must be avoided.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not empty into drains.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

Land transport (ADR/RID)

- 14.1. UN number or ID number:** UN 3266
- 14.2. UN proper shipping name:** CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium sulphide)
- 14.3. Transport hazard class(es):** 8
- 14.4. Packing group:** III

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sodium sulphide solution 182 g Na₂S x xH₂O / l in water - stabilised with NaOH

Revision date: 01.02.2023

Product code: 34317

Page 10 of 11

Hazard label: 8
 Classification code: C5
 Special Provisions: 274
 Limited quantity: 5 L
 Excepted quantity: E1
 Transport category: 3
 Hazard No: 80
 Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 3266
14.2. UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium sulphide)
14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8
 Classification code: C5
 Special Provisions: 274
 Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 3266
14.2. UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium sulphide)
14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8
 Special Provisions: 223, 274
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-A, S-B
 Segregation group: 18 - alkalis

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 3266
14.2. UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium sulphide)
14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8
 Special Provisions: A3 A803
 Limited quantity Passenger: 1 L
 Passenger LQ: Y841
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 852
 IATA-max. quantity - Passenger: 5 L
 IATA-packing instructions - Cargo: 856
 IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):
 Entry 3, Entry 75

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sodium sulphide solution 182 g Na₂S x xH₂O / l in water - stabilised with NaOH

Revision date: 01.02.2023

Product code: 34317

Page 11 of 11

Information according to 2012/18/EU (SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

2 - obviously hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,5,7,9,11,12,14,15.

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Acute Tox. 4; H302	Calculation method
Acute Tox. 4; H312	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method

Relevant H and EUH statements (number and full text)

H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H302+H312	Harmful if swallowed or in contact with skin.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
EUH031	Contact with acids liberates toxic gas.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)