

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 30.01.2025

Product code: 25244

Page 1 of 12

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Natriumsulfid-Hydrat ca. 60% reinst

Substance name: sodium sulphide  
REACH Registration Number: 01-2119513694-38-XXXX  
CAS No: 27610-45-3  
Index No: 016-009-00-8  
EC No: 215-211-5

### 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  
ACD  
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

No data available

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No 1272/2008

Acute Tox. 3; H311  
Acute Tox. 3; H301  
Skin Corr. 1B; H314  
Aquatic Acute 1; H400

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### Regulation (EC) No 1272/2008

Signal word: Danger

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 30.01.2025

Product code: 25244

Page 2 of 12

#### Pictograms:



#### Hazard statements

H301+H311 Toxic if swallowed or in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H400 Very toxic to aquatic life.

#### Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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

### 3.1. Substances

#### Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
27610-45-3	sodium sulphide			100 %
	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	100 %
	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!

#### After inhalation

Provide fresh air.

**Natriumsulfid-Hydrat ca. 60% reinst**

Revision date: 30.01.2025

Product code: 25244

Page 3 of 12

If breathing is irregular or stopped, administer artificial respiration.

Call a physician immediately.

**After contact with skin**

Wash immediately with: Water

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**

Dizziness

Headache

Gastrointestinal complaints

Vomiting

Narcotic effects

Unconsciousness

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

**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**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**

Hazardous combustion products

In case of fire may be liberated: Sulphur oxides

Exothermal decomposition energy

Zur Vermeidung thermischer Zersetzung nicht überhitzen.

Die Hydrate des Natriumsulfid sind nicht brennbar, verlieren aber beim Erhitzen das gebundene Wasser.

Trockenes Natriumsulfid wird leicht an der Luft oxidiert, wobei Selbstentzündung eintreten kann.

**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.

Avoid contact with skin, eyes and clothes.

**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**

**For non-emergency personnel**

Provide adequate ventilation.

**Natriumsulfid-Hydrat ca. 60% reinst**

Revision date: 30.01.2025

Product code: 25244

Page 4 of 12

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

**For emergency responders**

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

**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.  
Take up carefully when dry. Take up dust-free and set down dust-free.

**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 dust. Use extractor hood (laboratory).  
Zur Vermeidung thermischer Zersetzung nicht überhitzen.  
Die Hydrate des Natriumsulfid sind nicht brennbar, verlieren aber beim Erhitzen das gebundene Wasser.  
Trockenes Natriumsulfid wird leicht an der Luft oxidiert, wobei Selbstentzündung eintreten kann.

**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. Do not breathe dust.

**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**

Store in a place accessible by authorized persons only.  
storage temperature: +2°C - +8°C

**Natriumsulfid-Hydrat ca. 60% reinst**

Revision date: 30.01.2025

Product code: 25244

Page 5 of 12

Handle and store contents under inert gas. Protect from moisture.

**Hints on joint storage**

national regulations  
Keep away from: Acid

**Further information on storage conditions**

Protect against: Light, Humidity  
Store in a well-ventilated place. Keep container tightly closed.

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**DNEL/DMEL values**

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
27610-45-3	sodium sulphide			
Worker DNEL, long-term		inhalation	systemic	13,84 mg/m³
Worker DNEL, long-term		inhalation	local	1,6 mg/m³
Worker DNEL, acute		inhalation	local	3,2 mg/m³

**PNEC values**

CAS No	Substance	
Environmental compartment	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**

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

By long-term hand contact  
Recommended glove articles: KCL 741 Dermatrill® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with permanent contact: > 480 min

**Natriumsulfid-Hydrat ca. 60% reinst**

Revision date: 30.01.2025

Product code: 25244

Page 6 of 12

By short-term hand contact  
Recommended glove articles: KCL 741 Dermatrill® L  
Recommended material: NBR (Nitrile rubber) 0,11mm  
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](http://www.kcl.de)).

**Skin protection**

Wear suitable protective clothing. Take off immediately all contaminated clothing.  
Wash hands before breaks and after work.  
The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**Respiratory protection**

Respiratory protection necessary at: dust formation  
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**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:	solid	
Colour:	yellow	
Odour:	characteristic	
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:		480 °C
pH-Value (at 20 °C):		13-14 (10 g/l)
Viscosity / kinematic:		No data available
Water solubility:		Soluble in: Water
Solubility in other solvents		
	No data available	
Partition coefficient n-octanol/water:		No data available
Vapour pressure:		No data available
Vapour pressure:		No data available
Density (at 20 °C):		1,43 g/cm³
Bulk density:		No data available
Relative vapour density:		No data available

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties  
No data available

**Natriumsulfid-Hydrat ca. 60% reinst**

Revision date: 30.01.2025

Product code: 25244

Page 7 of 12

Sustaining combustion:	No data available
Self-ignition temperature	
Solid:	No data available
Gas:	No data available
Oxidizing properties	
Oxidizing	

**Other safety characteristics**

Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	0
Solid content:	100%
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**

No data available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

Zur Vermeidung thermischer Zersetzung nicht überhitzen.  
Die Hydrate des Natriumsulfid sind nicht brennbar, verlieren aber beim Erhitzen das gebundene Wasser.  
Trockenes Natriumsulfid wird leicht an der Luft oxidiert, wobei Selbstentzündung eintreten kann.

**10.2. Chemical stability**

Protect against:  
Light  
Humidity  
Air  
Radiant heat.

**10.3. Possibility of hazardous reactions**

Contact with acids liberates toxic gas.  
Oxidising agent

Explosionsgefahr bei Kontakt mit:  
Diazoniumsalzen  
Hitze  
Stoß  
Schlag

Der Stoff kann in gefährlicher Weise reagieren mit:  
organischen Stoffen  
brennbaren Stoffen  
Oxidationsmitteln  
Sauerstoff  
Dichlormethylamin  
Kaliumdichromat -> Selbstentzündung  
Aktivkohle  
Kohlendioxid -> Schwefelwasserstoff  
Säuren -> Schwefelwasserstoff  
Luft (fein verteilter Stoff) -> Selbstentzündung

**Natriumsulfid-Hydrat ca. 60% reinst**

Revision date: 30.01.2025

Product code: 25244

Page 8 of 12

Trocknen des feuchten Stoffs oder des Hydrats --> Selbstentzündung  
An feuchter Luft, kommt es bei größeren Stücken zu Hitzeentwicklung

**10.4. Conditions to avoid**

Light  
Humidity  
Air  
Radiant heat.

**10.5. Incompatible materials**

Metal

**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**

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

**Acute toxicity**

Toxic if swallowed.  
Toxic in contact with skin.  
Contact with acids liberates toxic gas.

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**

Skin corrosion/irritation: Causes severe skin burns and eye damage.  
Serious eye damage/eye irritation: Causes serious eye damage.

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.  
Carcinogenicity: Based on available data, the classification criteria are not met.  
Reproductive toxicity: 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.

**Specific effects in experiment on an animal**

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

**Natriumsulfid-Hydrat ca. 60% reinst**

Revision date: 30.01.2025

Product code: 25244

Page 9 of 12

**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**

**Other information**

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

**Further information**

Dizziness

Headache

Gastrointestinal complaints

Vomiting

Narcotic effects

Unconsciousness

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

**SECTION 12: Ecological information**

**12.1. Toxicity**

Very toxic to aquatic life.

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
	Acute crustacea toxicity	EC50 mg/l	3080	48 h	Ceriodaphnia dubia	Environmental Toxicology and Chemistry 1
	Fish toxicity	NOEC mg/l	>= 0,009	28 d	Lepomis macrochirus	Transactions of the American Fisheries S
						other: US EPA guidelines for whole efflu
						other: US EPA guidelines for whole efflu
						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**

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects**

Discharge into the environment must be avoided.

Harmful effect due to pH shift.

Forms corrosive mixtures with water even if diluted.

**Natriumsulfid-Hydrat ca. 60% reinst**

Revision date: 30.01.2025

Product code: 25244

Page 10 of 12

**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.

Do not mix with other wastes.

**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)**

<b>14.1. UN number or ID number:</b>	UN 1849
<b>14.2. UN proper shipping name:</b>	SODIUM SULPHIDE, HYDRATED
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Classification code:	C6
Special Provisions:	523
Limited quantity:	1 kg
Excepted quantity:	E2
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

**Inland waterways transport (ADN)**

<b>14.1. UN number or ID number:</b>	UN 1849
<b>14.2. UN proper shipping name:</b>	Sodium sulphide, hydrated
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Classification code:	C6
Special Provisions:	523
Limited quantity:	1 kg
Excepted quantity:	E2

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	UN 1849
<b>14.2. UN proper shipping name:</b>	SODIUM SULPHIDE, HYDRATED
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Special Provisions:	-
Limited quantity:	1 kg
Excepted quantity:	E2
EmS:	F-A, S-B
Segregation group:	18 - alkalis

**Air transport (ICAO-TI/IATA-DGR)**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 30.01.2025

Product code: 25244

Page 11 of 12

<b>14.1. UN number or ID number:</b>	UN 1849
<b>14.2. UN proper shipping name:</b>	SODIUM SULPHIDE, HYDRATED
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Limited quantity Passenger:	5 kg
Passenger LQ:	Y844
Excepted quantity:	E2
IATA-packing instructions - Passenger:	859
IATA-max. quantity - Passenger:	15 kg
IATA-packing instructions - Cargo:	863
IATA-max. quantity - Cargo:	50 kg

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:	Yes
Danger releasing substance:	sodium sulphide

#### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

#### 14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

### SECTION 15: Regulatory information

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

##### EU regulatory information

Information according to Directive 2012/18/EU (SEVESO III):	E1 Hazardous to the Aquatic Environment
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##### 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): 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15.

#### Abbreviations and acronyms

Acute Tox: Acute toxicity  
Skin Corr: Skin corrosion  
Eye Dam: Eye damage  
Aquatic Acute: Acute aquatic hazard

#### Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H301+H311	Toxic if swallowed or in contact with skin.
H311	Toxic 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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 30.01.2025

Product code: 25244

Page 12 of 12

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.  
Provide appropriate information, instructions and training to users