

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 15.02.2023

Product code: 25244

Page 1 of 11

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
Street: Stempelstraße 6
Place: D-47167 Duisburg
Telephone: 0203/5194-0
e-mail: info@analytichem.de
Contact person: Abteilung Produktsicherheit
e-mail: produktsicherheit@analytichem.de
Internet: www.analytichem.de
Responsible Department: Abteilung Produktsicherheit

Telefax: 0203/5194-290

Telephone: 0203/5194-107/117

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

Pictograms:



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 15.02.2023

Product code: 25244

Page 2 of 11

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

Hazardous components

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.
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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 15.02.2023

Product code: 25244

Page 3 of 11

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.

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.

Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 15.02.2023

Product code: 25244

Page 4 of 11

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

Hints on joint storage

Keep away from: Acid

Further information on storage conditions

Protect against: Light, Humidity

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 15.02.2023

Product code: 25244

Page 5 of 11

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	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	
Environmental compartment		
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 With specification (test according to EN374):

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

By short-term hand contact
Recommended glove articles: KCL 741 Dermatril® 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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 15.02.2023

Product code: 25244

Page 6 of 11

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: dust formation

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
Density (at 20 °C):		1,43 g/cm ³
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	
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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 15.02.2023

Product code: 25244

Page 7 of 11

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

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 15.02.2023

Product code: 25244

Page 8 of 11

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.

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.

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

Other information

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

Further information

Dizziness
Headache
Gastrointestinal complaints
Vomiting
Narcotic effects

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 15.02.2023

Product code: 25244

Page 9 of 11

Unconsciousness

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

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

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

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

There are no data available on the mixture itself.

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.

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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 15.02.2023

Product code: 25244

Page 10 of 11

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 1849
14.2. UN proper shipping name:	SODIUM SULPHIDE, HYDRATED
14.3. Transport hazard class(es):	8
14.4. Packing group:	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)

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

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1849
14.2. UN proper shipping name:	SODIUM SULPHIDE, HYDRATED
14.3. Transport hazard class(es):	8
14.4. Packing group:	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)

14.1. UN number or ID number:	UN 1849
14.2. UN proper shipping name:	SODIUM SULPHIDE, HYDRATED
14.3. Transport hazard class(es):	8
14.4. Packing group:	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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumsulfid-Hydrat ca. 60% reinst

Revision date: 15.02.2023

Product code: 25244

Page 11 of 11

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 2012/18/EU (SEVESO III): E1 Hazardous to the Aquatic Environment

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): 1,2,3,4,5,6,7,8,9,10,11,13,14,15.

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 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.