



# SAFETY DATA SHEET

MATERION

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

### 1.1. Product identifier

**Name of the substance** Sodium Sulfide Hydrate  
**Identification number** 016-009-00-8 (Index number)  
**Synonyms** None.  
**Document number** 2FK  
**Materion Code** 2FK  
**Issue date** 27-February-2018  
**Version number** 01

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** The chemical(s) listed herein is not found on the Toxic Substance Control Act chemical substance inventory. This chemical may not be used for commercial purposes. This chemical may be used for research and development purposes only as defined at 40 CFR 710,2(y).

**Uses advised against** None known.

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

**Company name** Materion Advanced Chemicals Inc.  
**Address** 407 N. 13th Street  
1316 W. St. Paul Avenue  
Milwaukee, WI 53233  
United States  
**Division** Milwaukee  
**Telephone** 414.212.0257  
**e-mail** advancedmaterials@materion.com  
**Contact person** Noreen Atkinson

### 1.4. Emergency telephone number

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

##### Health hazards

Acute toxicity, oral	Category 4
Acute toxicity, dermal	Category 3
Skin corrosion/irritation	Category 1B
Serious eye damage/eye irritation	Category 1

##### Environmental hazards

Hazardous to the aquatic environment, acute aquatic hazard	Category 1	H400 - Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term aquatic hazard	Category 2	

#### Hazard summary

Toxic if swallowed. Dangerous for the environment if discharged into watercourses. Occupational exposure to the substance or mixture may cause adverse health effects. The material as sold in solid form is generally not considered hazardous. However, if the process involves grinding, melting, cutting or any other process that causes a release of dust or fumes, hazardous levels of airborne particulate could be generated.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** Sodium Sulfide Hydrate

## Hazard pictograms



### Signal word

Danger

### Hazard statements

H301 Toxic if swallowed.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

### Precautionary statements

#### Prevention

P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.

#### Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.  
P330 Rinse mouth.  
P391 Collect spillage.

#### Storage

P405 Store locked up.

#### Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### Supplemental label information

% of the mixture consists of component(s) of unknown acute dermal toxicity. 100 % of the mixture consists of component(s) of unknown acute inhalation toxicity.  
For further information, please contact the Product Stewardship Department at +1.800.862.4118.

### 2.3. Other hazards

Not a PBT or vPvB substance or mixture.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

#### General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Sodium Sulfide Hydrate	100	1313-82-2 215-211-5	-	016-009-00-8	
<b>Classification:</b>	Acute Tox. 3;H301, Aquatic Acute 1;H400, Aquatic Chronic 1;H410				

#### List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

#### Composition comments

The full text for all H-statements is displayed in section 16.

## SECTION 4: First aid measures

#### General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

#### 4.1. Description of first aid measures

##### Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

##### Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

##### Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

##### Ingestion

Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

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

Exposure may cause temporary irritation, redness, or discomfort.

**4.3. Indication of any immediate medical attention and special treatment needed** Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

## SECTION 5: Firefighting measures

**General fire hazards** No unusual fire or explosion hazards noted.

**5.1. Extinguishing media**

**Suitable extinguishing media** Foam. Dry powder.

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

**5.2. Special hazards arising from the substance or mixture** During fire, gases hazardous to health may be formed.

**5.3. Advice for firefighters**

**Special protective equipment for firefighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Special firefighting procedures** Move containers from fire area if you can do so without risk.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**For emergency responders** Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

**6.2. Environmental precautions** Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

**6.3. Methods and material for containment and cleaning up** Use water spray to reduce vapours or divert vapour cloud drift. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

**6.4. Reference to other sections** For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling** Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

**7.2. Conditions for safe storage, including any incompatibilities** Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

**7.3. Specific end use(s)** Not available.

## SECTION 8: Exposure controls/personal protection

**8.1. Control parameters**

## Occupational exposure limits

### Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Material	Type	Value
Sodium Sulfide Hydrate (CAS 1313-82-2)	TWA	0,2 mg/m <sup>3</sup>
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).	
<b>Recommended monitoring procedures</b>	Follow standard monitoring procedures.	
<b>Derived no effect levels (DNELs)</b>	Not available.	
<b>Predicted no effect concentrations (PNECs)</b>	Not available.	
<b>8.2. Exposure controls</b>		
<b>Appropriate engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.	
<b>Individual protection measures, such as personal protective equipment</b>		
<b>General information</b>	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.	
<b>Eye/face protection</b>	Face shield is recommended. Wear safety glasses with side shields (or goggles).	
<b>Skin protection</b>		
- Hand protection	Wear appropriate chemical resistant gloves.	
- Other	Wear suitable protective clothing.	
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.	
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.	
<b>Hygiene measures</b>	Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.	
<b>Environmental exposure controls</b>	Inform appropriate managerial or supervisory personnel of all environmental releases.	

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Colour</b>	Not available.
<b>Odour</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	1180 °C (2156 °F)
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapour pressure</b>	< 0,0000001 kPa at 25 °C
<b>Vapour density</b>	Not available.
<b>Relative density</b>	Not available.

<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not explosive.
<b>Oxidising properties</b>	Not oxidising.

## 9.2. Other information

<b>Density</b>	1,86 g/cm <sup>3</sup> estimated at 14 °C
<b>Molecular formula</b>	Na <sub>2</sub> S
<b>Molecular weight</b>	78,05 g/mol
<b>Specific gravity</b>	1,86 at 14 °C

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>10.2. Chemical stability</b>	Material is stable under normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>10.4. Conditions to avoid</b>	Contact with incompatible materials.
<b>10.5. Incompatible materials</b>	Strong oxidising agents.
<b>10.6. Hazardous decomposition products</b>	No hazardous decomposition products are known.

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Toxic if swallowed.

**Symptoms** Exposure may cause temporary irritation, redness, or discomfort.

### 11.1. Information on toxicological effects

<b>Acute toxicity</b>	Toxic if swallowed.
<b>Skin corrosion/irritation</b>	Due to partial or complete lack of data the classification is not possible.
<b>Serious eye damage/eye irritation</b>	Due to partial or complete lack of data the classification is not possible.
<b>Respiratory sensitisation</b>	Due to partial or complete lack of data the classification is not possible.
<b>Skin sensitisation</b>	Due to partial or complete lack of data the classification is not possible.
<b>Germ cell mutagenicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Carcinogenicity</b>	Due to partial or complete lack of data the classification is not possible.

#### **Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)**

Not listed.

<b>Reproductive toxicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Specific target organ toxicity - single exposure</b>	Due to partial or complete lack of data the classification is not possible.
<b>Specific target organ toxicity - repeated exposure</b>	Due to partial or complete lack of data the classification is not possible.
<b>Aspiration hazard</b>	Due to partial or complete lack of data the classification is not possible.
<b>Mixture versus substance information</b>	No information available.
<b>Other information</b>	Not available.

## SECTION 12: Ecological information

**12.1. Toxicity** Very toxic to aquatic life with long lasting effects.

Product	Species	Test results
Sodium Sulfide Hydrate (CAS 1313-82-2)		
<b>Aquatic</b>		
Fish	LC50	Guppy (Poecilia reticulata) 7,7 - 29,1 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

### 12.2. Persistence and degradability

**12.3. Bioaccumulative potential** No data available.

**Partition coefficient n-octanol/water (log Kow)** Not available.

**Bioconcentration factor (BCF)** Not available.

**12.4. Mobility in soil** No data available.

**12.5. Results of PBT and vPvB assessment** Not a PBT or vPvB substance or mixture.

**12.6. Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Residual waste** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**EU waste code** The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Disposal methods/information** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Special precautions** Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

**14.1. UN number** UN1849

**14.2. UN proper shipping name** SODIUM SULPHIDE, HYDRATED with not less than 30% water

#### 14.3. Transport hazard class(es)

**Class** 8

**Subsidiary risk** -

**Label(s)** 8

**Hazard No. (ADR)** 80

**Tunnel restriction code** E

**14.4. Packing group** II

**14.5. Environmental hazards** No.

**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

### RID

**14.1. UN number** UN1849

**14.2. UN proper shipping name** SODIUM SULPHIDE, HYDRATED with not less than 30% water

#### 14.3. Transport hazard class(es)

**Class** 8

**Subsidiary risk** -

<b>Label(s)</b>	8
<b>14.4. Packing group</b>	II
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

#### ADN

<b>14.1. UN number</b>	UN1849
<b>14.2. UN proper shipping name</b>	SODIUM SULPHIDE, HYDRATED with not less than 30% water
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	8
<b>14.4. Packing group</b>	II
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

#### IATA

<b>14.1. UN number</b>	UN1849
<b>14.2. UN proper shipping name</b>	Sodium sulphide, hydrated with 30% or more water
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>14.4. Packing group</b>	II
<b>14.5. Environmental hazards</b>	No.
<b>ERG Code</b>	8L
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed with restrictions.
<b>Cargo aircraft only</b>	Allowed with restrictions.

#### IMDG

<b>14.1. UN number</b>	UN1849
<b>14.2. UN proper shipping name</b>	SODIUM SULPHIDE, HYDRATED with not less than 30% water
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>14.4. Packing group</b>	II
<b>14.5. Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	F-A, S-B
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

ADN; ADR; IATA; IMDG; RID



## SECTION 15: Regulatory information

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

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

#### **Authorisations**

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### **Restrictions on use**

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Not listed.

#### **Other EU regulations**

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Sodium Sulfide Hydrate (CAS 1313-82-2)

#### **Other regulations**

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. Additional information is given in the Safety Data Sheet.

#### **National regulations**

Follow national regulation for work with chemical agents. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.

#### **15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out.

### **SECTION 16: Other information**

#### **List of abbreviations**

Not available.

#### **Information on evaluation method leading to the classification of mixture**

Not applicable.

#### **Disclaimer**

Materion Advanced Chemicals Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. This document has been prepared using data from sources considered to be technically reliable and the information is believed to be correct. Materion makes no warranties, expressed or implied, as to the accuracy of the information contained herein. Materion cannot anticipate all conditions under which this information and its products may be used and the actual conditions of use are beyond its control. The user is responsible to evaluate all available information when using this product for any particular use and to comply with all Federal, State, Provincial and Local laws, statutes and regulations.