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

1.1 Product identifier
- Trade name: SODIUM SULFIDE - FLAKES 60-62 %
- Chemical name: Disodium sulfide
- Synonyms: SODIUM SULFIDE HYDRATED
- Molecular formula: Na2S xH2O; x >= 2.66

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

Uses of the Substance / Mixture:
- Chemical industry
- Waste treatment
- Water treatment
- De-hairing agent
- Textile industry
- Manufacture of pulp, paper and paper products

Uses advised against:
- none

1.3 Details of the supplier of the safety data sheet

Company
SOLVAY FLUORIDES, LLC
3737 Buffalo Speedway,
Suite 800,
Houston, TX 77098
USA
Tel: 800-515-6065

1.4 Emergency telephone
FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CONTACT CHEMTREC (24-Hour Number): 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)
- Corrosive to Metals, Category 1
- Acute toxicity, Category 3
- Skin corrosion, Category 1B
- Serious eye damage, Category 1
- H290: May be corrosive to metals.
- H301: Toxic if swallowed.
- H314: Causes severe skin burns and eye damage.
- H318: Causes serious eye damage.
2.2 Label elements

HCS 2012 (29 CFR 1910.1200)

Pictogram

Signal Word
- Danger

Hazard Statements
- H290 May be corrosive to metals.
- H301 Toxic if swallowed.
- H314 Causes severe skin burns and eye damage.

Precautionary Statements

Prevention
- P234 Keep only in original container.
- P260 Do not breathe dusts or mists.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response
- P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
- P363 Wash contaminated clothing before reuse.
- P390 Absorb spillage to prevent material damage.

Storage
- P405 Store locked up.
- P406 Store in corrosive resistant container with a resistant inner liner.

Disposal
- P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards which do not result in classification
- H400: Very toxic to aquatic life.

SECTION 3: Composition/information on ingredients

3.1 Substance
SAFETY DATA SHEET

SODIUM SULFIDE - FLAKES 60-62 %

Revision Date 01/24/2018

Hazardous Ingredients and Impurities

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Identification number/CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disodium sulfide (hydrate)</td>
<td>27610-45-3</td>
<td>&gt;= 90 - &lt; 95</td>
</tr>
<tr>
<td>Sodium hydrogensulfide (hydrate)</td>
<td>207683-19-0</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Carbonic acid sodium salt (1:2)</td>
<td>497-19-8</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>Thiosulfuric acid (H2S2O3), sodium salt (1:2)</td>
<td>7772-98-7</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
</tbody>
</table>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

3.2 Mixture
Not applicable, this product is a substance.

SECTION 4: First aid measures

4.1 Description of first-aid measures

In case of inhalation
- Move to fresh air.
- Oxygen or artificial respiration if needed.
- Victim to lie down in the recovery position, cover and keep him warm.
- Call a physician immediately.

In case of skin contact
- Take off contaminated clothing and shoes immediately.
- Wash off immediately with plenty of water.
- Keep warm and in a quiet place.
- Call a physician or poison control center immediately.
- Wash contaminated clothing before re-use.

In case of eye contact
- Call a physician or poison control center immediately.
- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine).
- Take victim immediately to hospital.

In case of ingestion
- Call a physician or poison control center immediately.
- Take victim immediately to hospital.
- If swallowed, rinse mouth with water (only if the person is conscious).
- Do NOT induce vomiting.
- Artificial respiration and/or oxygen may be necessary.

4.2 Most important symptoms and effects, both acute and delayed

In case of inhalation

Symptoms
- At high concentrations:
  - slight irritation

Effects
- No hazards to be specially mentioned.

In case of skin contact

Symptoms
- Redness
- Swelling of tissue
- Burn

Effects
- Corrosive

In case of eye contact

Symptoms
- Redness
- Lachrymation
- Swelling of tissue
- Burn

Effects
- May cause irreversible eye damage.
- May cause blindness.

In case of ingestion

Symptoms
- Nausea
- Abdominal pain
- Bloody vomiting
- Diarrhea
- Suffocation
- Cough
- Severe shortness of breath

Effects
- If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

4.3 Indication of any immediate medical attention and special treatment needed
- no data available

SECTION 5: Firefighting measures

Flash point
Not applicable, inorganic

Autoignition temperature
> 806 °F (> 430 °C)

Flammability / Explosive limit
No data available

5.1 Extinguishing media

Suitable extinguishing media
- Foam
5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting
- Not combustible.
- Hazardous decomposition products

Hazardous combustion products:
- Sulfur oxides

5.3 Advice for firefighters

Special protective equipment for fire-fighters
- Exposure to decomposition products may be a hazard to health.
- In the event of fire, wear self-contained breathing apparatus.
- Use personal protective equipment.
- Wear chemical resistant oversuit
- Cool containers/tanks with water spray.
- Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for emergency responders
- Isolate the area.
- Wear self-contained breathing apparatus and protective suit.

Advice for non-emergency personnel
- Prevent further leakage or spillage if safe to do so.

Advice for non-emergency personnel
- Sweep up to prevent slipping hazard.
- Avoid dust formation.

6.2 Environmental precautions
- Discharge into the environment must be avoided.
- Do not flush into surface water or sanitary sewer system.
- In case of accidental release or spill, immediately notify the appropriate authorities if required by Federal, State/Provincial and local laws and regulations.

6.3 Methods and materials for containment and cleaning up
- Pick up and arrange disposal without creating dust.
- Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
- Refer to protective measures listed in sections 7 and 8.
SECTION 7: Handling and storage

7.1 Precautions for safe handling
- Use product only in closed system.
- Ensure adequate ventilation.
- Keep away from heat.
- Keep away from incompatible products

Hygiene measures
- Eye wash bottles or eye wash stations in compliance with applicable standards.
- When using do not eat, drink or smoke.
- Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions
- Store in original container.
- Keep in a well-ventilated place.
- Keep in a dry place.
- Keep in properly labeled containers.
- Keep container closed.
- Keep away from heat.
- Avoid dust formation.
- Keep away from incompatible products

Packaging material
Suitable material
- Steel drum
- Polyethylene

7.3 Specific end use(s)
- Contact your supplier for additional information

SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Components with workplace occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Value type</th>
<th>Value</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbonic acid sodium salt (1:2)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Solvay Acceptable Exposure Limit</td>
</tr>
</tbody>
</table>
8.2 Exposure controls

**Control measures**

**Engineering measures**
- Provide appropriate exhaust ventilation at places where dust is formed.
- Apply technical measures to comply with the occupational exposure limits.

**Individual protection measures**

**Respiratory protection**
- In case of insufficient ventilation, wear suitable respiratory equipment.
- When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- In case of decomposition (see section 10), face mask with combined type B-P3 cartridge.
- Use only respiratory protection that conforms to international/national standards.
- Use NIOSH approved respiratory protection.

**Hand protection**
- Chemical resistant gloves

**Suitable material**
- PVC
- Neoprene
- Natural Rubber

**Eye protection**
- Goggles

**Skin and body protection**
- Dust impervious protective suit
- Apron
- Boots
- Neoprene
- PVC

**Hygiene measures**
- Eye wash bottles or eye wash stations in compliance with applicable standards.
- When using do not eat, drink or smoke.
- Handle in accordance with good industrial hygiene and safety practice.

---

### SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

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

**Appearance**
- Form: flakes
- Physical state: solid
- Color: yellow
- Particle size: 3,500 µm; d 50

**Odor**
- odorless rotten-egg like slight

**Odor Threshold**
- No data available
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Molecular weight</strong></td>
<td>132.09 g/mol</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>12.9 (1 %)</td>
</tr>
<tr>
<td></td>
<td>13.1</td>
</tr>
<tr>
<td></td>
<td>saturated aqueous solution</td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>Melting point/range: 156 - 199 °F (69 - 93 °C) (ca. 747.81 mmHg (997 hPa))</td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>Boiling point/boiling range:</td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not applicable, inorganic</td>
</tr>
<tr>
<td><strong>Evaporation rate (Butylacetate = 1)</strong></td>
<td>Not applicable, inorganic</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>The product is not flammable.</td>
</tr>
<tr>
<td><strong>Flammability / Explosive limit</strong></td>
<td>Explosiveness:</td>
</tr>
<tr>
<td></td>
<td>Not explosive</td>
</tr>
<tr>
<td><strong>Autoignition temperature</strong></td>
<td>&gt; 806 °F (&gt; 430 °C)</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>Not applicable, inorganic</td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
<td>Not applicable, inorganic</td>
</tr>
<tr>
<td><strong>Density</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>1.64 (70 °F (21 °C))</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water solubility:</td>
</tr>
<tr>
<td></td>
<td>178 g/l (68 °F (20 °C))</td>
</tr>
<tr>
<td></td>
<td>Solubility in other solvents:</td>
</tr>
<tr>
<td></td>
<td>Alcohol: slightly soluble</td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol/water</strong></td>
<td>Not applicable, inorganic</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Viscosity, dynamic: Solid form, Not applicable</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Oxidizing properties</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td></td>
<td>Not considered as oxidizing.</td>
</tr>
<tr>
<td><strong>Corrosion of Metals</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrosive to metals</td>
</tr>
</tbody>
</table>
### SECTION 10: Stability and reactivity

#### 10.1 Reactivity
- Contact with acids liberates toxic gas.

#### 10.2 Chemical stability
- Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions
- Corrosive in contact with metals, Contact with acids liberates toxic gas.

#### 10.4 Conditions to avoid
- Keep away from flames and hot surfaces.
- Exposure to moisture.

#### 10.5 Incompatible materials
- Carbon dioxide (CO2)
- Acids
- Oxidizing agents
- Metals

#### 10.6 Hazardous decomposition products
- Sulfur oxides
- Hydrogen sulfide (H2S)

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

**Acute toxicity**

**Acute oral toxicity**
- Disodium sulfide (hydrate)  
  LD50: 246 mg/kg - Rat, male and female  
  Method: OECD Test Guideline 401  
  This product is classified as acute toxicity category 3

**Acute inhalation toxicity**
- Corrosive to the respiratory tract.

**Acute dermal toxicity**
- Disodium sulfide (hydrate)  
  study scientifically unjustified

**Acute toxicity (other routes of administration)**
- No data available

**Skin corrosion/irritation**
- Disodium sulfide (hydrate)  
  Corrosive

**Serious eye damage/eye irritation**
- Disodium sulfide (hydrate)  
  Corrosive
Respiratory or skin sensitization

Disodium sulfide (hydrate) study scientifically unjustified

Mutagenicity

Genotoxicity in vitro

Genotoxicity in vivo
Disodium sulfide (hydrate) In vivo micronucleus test - Mouse male and female Intraperitoneal route Method: OECD Test Guideline 474 negative

Carcinogenicity
No data available

This product does not contain any ingredient designated as probable or suspected human carcinogens by:
NTP
IARC
OSHA

Toxicity for reproduction and development

Toxicity to reproduction / fertility
Disodium sulfide (hydrate) By analogy Reproduction / developmental toxicity screening test - Rat, male and female Inhalation Fertility NOAEL Parent: 80 ppm Method: OECD Test Guideline 421 Test substance, Hydrogen sulfide

Developmental Toxicity/Teratogenicity
Disodium sulfide (hydrate) By analogy Inhalation Teratogenicity NOAEL:80ppm Method: OECD Test Guideline 421 Test substance, Hydrogen sulfide
STOT

STOT-single exposure
Disodium sulfide (hydrate)  The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.

STOT-repeated exposure
Disodium sulfide (hydrate)  The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria.

Disodium sulfide (hydrate)  By analogy
- Rat
- Mouse

Inhalation (vapor) 90-day, male and female
NOAEC: 80 ppm(m)
Test substance: Hydrogen sulfide

Experience with human exposure  No data available

Aspiration toxicity  No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish
Disodium sulfide (hydrate)  LC50 - 96 h: 0.0027 mg/l - Fish
Test substance: Hydrogen sulfide
By analogy
Acute toxicity to daphnia and other aquatic invertebrates.

Disodium sulfide (hydrate)  
EC50 - 96 h : 0.02 mg/l - Crustaceans  
Test substance: Hydrogen sulfide  
Fresh water  
By analogy  

EC50 - 96 h : 0.032 mg/l - Crustaceans  
Test substance: Hydrogen sulfide  
salt water  
By analogy  

Toxicity to aquatic plants  
Disodium sulfide (hydrate)  
EC50 - 120 h : 1,900 mg/l  
Analytical monitoring: yes  
Fresh water  
By analogy  

EC50 - 4 h : 0.104 mg/l - Skeletonema costatum (marine diatom)  
Analytical monitoring: yes  
salt water  
By analogy  

Toxicity to microorganisms  
No data available  

Chronic toxicity to fish  
Disodium sulfide (hydrate)  
NOEC: 0.0046 mg/l - 826 Days - Lepomis macrochirus (Bluegill sunfish)  
Test substance: Hydrogen sulfide  
By analogy  

Chronic toxicity to daphnia and other aquatic invertebrates.  
No data available  

Chronic Toxicity to aquatic plants  
No data available  

M-Factor  
Disodium sulfide (hydrate)  
Acute aquatic toxicity = 100  
( according to the Globally Harmonized System (GHS) )  

12.2 Persistence and degradability  

Abiotic degradation
### Stability in water
Disodium sulfide (hydrate)
- Water, Soil, complexation/precipitation of inorganic and organic materials
- Water, Soil, Oxidation, Degradation products: sulfates

### Photodegradation
Disodium sulfide (hydrate)
- Chemical degradation
- Half-life (direct photolysis): 1 h
- Sensitizer: OH/O3 radicals
- Degradation: indirect photolysis: 0.6 - 2 %
- Test substance: Hydrogen sulfide
- Air
- Degradation products:
  - Sulphur dioxide
  - Sulfates
  - Sulfides

### Physical- and photo-chemical elimination
No data available

### Biodegradation

#### Biodegradability
- aerobic
  - Method: Oxidation
  - Test substance: Sulfides
  - Degradation products:
    - sulfites
    - sulfates

- anaerobic
  - Method: biodegradation by sulforeduction
  - Test substance: sulfates
  - Degradation products:
    - Hydrogen sulfide

- anaerobic
  - Method: methanogenesis
  - Test substance: sulfates
  - Inhibitor

#### Degradability assessment
Not applicable, inorganic substance

### 12.3 Bioaccumulative potential

#### Partition coefficient: n-octanol/water
Not applicable, inorganic substance

#### Bioconcentration factor (BCF)
Disodium sulfide (hydrate)
Not potentially bioaccumulable
12.4 Mobility in soil

**Adsorption potential (Koc)**
- Disodium sulfide (hydrate)
  - Water/soil: considerable solubility and mobility
  - Air: mobility as solid aerosols

**Known distribution to environmental compartments**
- No data available

12.5 Results of PBT and vPvB assessment
- Not applicable

12.6 Other adverse effects
- No data available

**Remarks**
- Very toxic to aquatic organisms. Product fate is highly dependent on environmental conditions: pH, temperature, redox potential, mineral and organic content of the medium, ...

---

**SECTION 13: Disposal considerations**

13.1 Waste treatment methods

**Product Disposal**
- In accordance with local and national regulations.
- Where possible recycling is preferred to disposal or incineration.
- Use an FeCl3 solution to precipitate FeS.
- Filtrate the product and send the cake to a landfill for industrial waste.

**Waste Code**
- Environmental Protection Agency
  - Hazardous Waste – YES
- Environmental Protection Agency
  - Hazardous Waste – YES
- RCRA Hazardous Waste (40 CFR 302)
  - D003 - Reactive waste – (R)
- RCRA Hazardous Waste (40 CFR 302)
  - D002 - Corrosive waste – (C)
  - D003 - Reactive waste – (R)

**Advice on cleaning and disposal of packaging**
- The empty and clean containers are to be reused in conformity with regulations.
- Uncleaned empty packaging
- Dispose of as unused product.
SECTION 14: Transport information

Transportation status: IMPORTANT! Statements below provide additional data on listed transport classification. The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

DOT

14.1 UN number UN 1849
14.2 Proper shipping name SODIUM SULFIDE, HYDRATED
14.3 Transport hazard class 8
Label(s) 8
14.4 Packing group
Packing group II
ERG No 153
14.5 Environmental hazards
Marine pollutant YES
Marine Pollutant

TDG

14.1 UN number UN 1849
14.2 Proper shipping name SODIUM SULFIDE, HYDRATED
14.3 Transport hazard class 8
Label(s) 8
14.4 Packing group
Packing group II
ERG No 153
14.5 Environmental hazards
Marine pollutant YES
Marine Pollutant

NOM

14.1 UN number UN 1849
14.2 Proper shipping name SODIUM SULPHIDE, HYDRATED
14.3 Transport hazard class 8
Label(s) 8
14.4 Packing group
Packing group II
ERG No 153
14.5 Environmental hazards
Marine pollutant YES
IMDG

14.1 UN number  
UN 1849

14.2 Proper shipping name  
SODIUM SULPHIDE, HYDRATED

14.3 Transport hazard class  
8

Label(s):  
8

14.4 Packing group  
Packing group  
II

14.5 Environmental hazards  
Yes

Marine pollutant  
YES

14.6 Special precautions for user  
EmS  
F-A, S-B

For personal protection see section 8.

IATA

14.1 UN number  
UN 1849

14.2 Proper shipping name  
SODIUM SULPHIDE, HYDRATED

14.3 Transport hazard class  
8

Label(s):  
8

14.4 Packing group  
Packing group  
II

Packing instruction (cargo aircraft)  
863
Max net qty / pkg  
50.00 kg

Packing instruction (passenger aircraft)  
859
Max net qty / pkg  
15.00 kg

14.5 Environmental hazards  
YES

14.6 Special precautions for user  
For personal protection see section 8.

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.
## SECTION 15: Regulatory information

### 15.1 Notification status

<table>
<thead>
<tr>
<th>Inventory Information</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States TSCA Inventory</td>
<td>Listed on Inventory</td>
</tr>
<tr>
<td>Mexico INSQ (INSQ)</td>
<td>Listed on Inventory</td>
</tr>
<tr>
<td>Canadian Domestic Substances List (DSL)</td>
<td>Listed on Inventory</td>
</tr>
<tr>
<td>New Zealand. Inventory of Chemical Substances</td>
<td>Listed on Inventory</td>
</tr>
<tr>
<td>Australia Inventory of Chemical Substances (AICS)</td>
<td>Listed on Inventory</td>
</tr>
<tr>
<td>Japan. CSCL - Inventory of Existing and New Chemical Substances</td>
<td>Listed on Inventory</td>
</tr>
<tr>
<td>Korea. Korean Existing Chemicals Inventory (KECI)</td>
<td>Listed on Inventory</td>
</tr>
<tr>
<td>China. Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Listed on Inventory</td>
</tr>
<tr>
<td>Philippines Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Listed on Inventory</td>
</tr>
<tr>
<td>EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH)</td>
<td>If product is purchased from Solvay in Europe it is in compliance with REACH, if not please contact the supplier.</td>
</tr>
</tbody>
</table>

### 15.2 Federal Regulations

**US. EPA EPCRA SARA Title III**

**SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Hazard Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrosive to Metals</td>
<td>Yes</td>
</tr>
<tr>
<td>Acute toxicity (any route of exposure)</td>
<td>Yes</td>
</tr>
<tr>
<td>Skin corrosion or irritation</td>
<td>Yes</td>
</tr>
<tr>
<td>Serious eye damage or eye irritation</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The categories not mentioned are not relevant for the product.

**Section 313 Toxic Chemicals (40 CFR 372.65)**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)**

This material does not contain any components with a section 302 EHS TPQ.

**Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)**

This material does not contain any components with a SARA 302 RQ.

**Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)**

This material does not contain any components with a section 304 EHS RQ.
US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydrogensulfide (hydrate)</td>
<td>207683-19-0</td>
<td>5000 lb</td>
</tr>
</tbody>
</table>

Calculated RQ exceeds reasonably attainable upper limit.

15.3 State Regulations

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

SECTION 16: Other information

NFPA (National Fire Protection Association) - Classification

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>3</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Instability or Reactivity</td>
<td>1</td>
</tr>
<tr>
<td>Special Notices</td>
<td>None</td>
</tr>
</tbody>
</table>

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>3</td>
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<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>1</td>
</tr>
<tr>
<td>PPE</td>
<td>Determined by User; dependent on local conditions</td>
</tr>
</tbody>
</table>

Further information

- Product evaluated under the US GHS format.

Date Prepared: 01/24/2018

- ACGIH American Conference of Governmental Industrial Hygienists
- OSHA Occupational Safety and Health Administration
- NTP National Toxicology Program
- IARC International Agency for Research on Cancer
- NIOSH National Institute for Occupational Safety and Health

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.