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

1.1. Product identifier
Product form: Substance
Substance name: Sodium Sulfate Anhydrous
EC-No.: 231-820-9
CAS-No.: 7757-82-6
Formula: Na₂SO₄

1.2. Relevant identified uses of the substance or mixture and uses advised against
1.2.1. Relevant identified uses
Use of the substance/mixture: Pharmaceuticals
Laboratory Reagent

1.2.2. Uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet
Manufacturer
Jost Chemical Co.
8150 Lackland Rd.
63114 Saint Louis, Missouri
T 314-428-4300 - F 314-428-4366
sds@jostchemical.com - www.jostchemical.com

Distributor
JOST CHEMICAL EUROPE SPRL
rue du Bois Portal n° 30/1-3
B - 5300 Andenne - BELGIQUE
T +32 85-552655 - F +32 85-552654
info@jostchemical.com

1.4. Emergency telephone number
Emergency number: For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
United States and Canada: 1-800-424-9300 / +1 703-527-3887
Global: +1 703-741-5970

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Not classified

Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements

2.3. Other hazards
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances
Substance type: Mono-constituent

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Sulfate Anhydrous</td>
<td>(CAS-No.) 7757-82-6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(EC-No.) 231-820-9</td>
<td>100</td>
</tr>
</tbody>
</table>

3.2. Mixtures
Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures general: If you feel unwell, seek medical advice. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists. Wash skin with plenty of water.
First-aid measures after eye contact: Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse eyes with water as a precaution.

First-aid measures after ingestion: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Call a poison center or a doctor if you feel unwell.

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

**Symptoms/effects after inhalation:**

AFTER INHALATION OF DUST: Slight irritation.

**Symptoms/effects after skin contact:**

Unlikely to cause harmful effects.

**Symptoms/effects after eye contact:**

Slight irritation.

**Symptoms/effects after ingestion:**


**Chronic symptoms:**

No effects known.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media


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

**Fire hazard:** DIRECT FIRE HAZARD: Non combustible.

**Explosion hazard:** Not applicable.

**Hazardous decomposition products in case of fire:**

On burning: release of toxic and corrosive gases/vapours (sulphur oxides).

### 5.3. Advice for firefighters

**Precautionary measures fire:**

Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.

**Firefighting instructions:**

Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water.

**Protection during firefighting:**

Heat/fire exposure: compressed air/oxygen apparatus. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

**Protective equipment:**


**Emergency procedures:**


**Measures in case of dust release:**

In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

#### 6.1.2. For emergency responders

**Protective equipment:**

Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

**For containment:**

Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. Hazardous reaction: measure explosive gas-air mixture. If reacting: dilute combustible/toxic gases/vapours. Take account of toxic/corrosive precipitation water.

**Methods for cleaning up:**

Mechanically recover the product. Stop dust cloud by humidifying. Scoop solid spill into closing containers. Wash down leftovers with plenty of water. Wash clothing and equipment after handling.

**Other information:**

Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.
SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures: Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures: Does not require any specific or particular technical measures.
Storage conditions: Store in a clean, dry warehouse in the original unopened containers. Store locked up. Store in a well-ventilated place. Keep cool.
Incompatible materials: Strong acids. Reactive metals (Al, K, Zn ...).
Storage temperature: < 30 °C
Heat and ignition sources: KEEP SUBSTANCE AWAY FROM: heat sources.
Information on mixed storage: KEEP SUBSTANCE AWAY FROM: (strong) acids. (strong) bases. water/moisture.
Storage area: Store in a dry area. Meet the legal requirements.
Special rules on packaging: SPECIAL REQUIREMENTS: closing. watertight. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Sodium Sulfate Anhydrous (7757-82-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL/DMEL (Workers)</td>
</tr>
<tr>
<td>Long-term - systemic effects, inhalation</td>
</tr>
<tr>
<td>Long-term - local effects, inhalation</td>
</tr>
<tr>
<td>DNEL/DMEL (General population)</td>
</tr>
<tr>
<td>Long-term - systemic effects, inhalation</td>
</tr>
<tr>
<td>Long-term - local effects, inhalation</td>
</tr>
<tr>
<td>PNEC (Water)</td>
</tr>
<tr>
<td>PNEC aqua (freshwater)</td>
</tr>
<tr>
<td>PNEC aqua (marine water)</td>
</tr>
<tr>
<td>PNEC (Sediment)</td>
</tr>
<tr>
<td>PNEC sediment (freshwater)</td>
</tr>
<tr>
<td>PNEC sediment (marine water)</td>
</tr>
<tr>
<td>PNEC (Soil)</td>
</tr>
<tr>
<td>PNEC soil</td>
</tr>
<tr>
<td>PNEC (STP)</td>
</tr>
<tr>
<td>PNEC sewage treatment plant</td>
</tr>
<tr>
<td>DNEL</td>
</tr>
<tr>
<td>PNEC</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

Personal protective equipment:

Materials for protective clothing:
GIVE GOOD RESISTANCE: butyl rubber. PVC
Hand protection:  
Gloves

Eye protection:  
Safety glasses. In case of dust production: protective goggles. Safety glasses

Skin and body protection:  
Protective clothing

Respiratory protection:  
Dust production: dust mask with filter type P1

Personal protective equipment symbol(s):

Environmental exposure controls:  
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Solid


Molecular mass: 142.04 g/mol

Colour: White.

Odour: Odourless.

Odour threshold: No data available

pH: 8 (10 %)

Relative evaporation rate (butylacetate=1): No data available

Melting point: 884 °C

Freezing point: Not applicable

Boiling point: Not applicable

Flash point: Not applicable

Auto-ignition temperature: Not applicable

Decomposition temperature: > 884 °C

Flammability (solid, gas): Non flammable.

Vapour pressure: No data available

Relative vapour density at 20 °C: Not applicable

Relative density: 2.7 (20 °C)

Density: 2680 kg/m³

Solubility: Soluble in water. Soluble in glycerol.

Log Pow: -4.38 (Calculated, US EPA)

Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

Explosive properties: No data available

Oxidising properties: No data available

Explosive limits: Not applicable

9.2. Other information

SADT: Not applicable

VOC content: Not applicable (inorganic)

Other properties: Hygroscopic.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with (strong) acids: release of toxic/combustible gases/vapours (hydrogen sulphide). Reacts violently with (some) metals. Reacts with (strong) bases.
10.2. Chemical stability
Hygroscopic.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
Thermal decomposition generates : Sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

**Sodium Sulfate Anhydrous (7757-82-6)**

LD50 oral rat > 2000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value)

LC50 inhalation rat (mg/l) > 2.4 mg/l air (OECD 436: Acute inhalation toxicity-acute toxic class method, 4 h, Rat, Male/female, Experimental value)

Causes serious eye damage. : Not classified (Based on available data, the classification criteria are not met)

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

Potential adverse human health effects and symptoms : Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Slightly harmful in contact with skin. Slightly harmful by inhalation. Slightly irritant to eyes.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general : Not classified as dangerous for the environment according to the criteria of Directive 67/548/EEC. Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.


Dangerous for the environment : Not classified

Chronic aquatic toxicity : Not classified

**Sodium Sulfate Anhydrous (7757-82-6)**

LC50 fish 1 7960 mg/l (EPA 600/4-90/027, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value)

LOEC (chronic) > 100 mg/l (7 days; Ceriodaphnia dubia)

12.2. Persistence and degradability

**Sodium Sulfate Anhydrous (7757-82-6)**

Persistence and degradability : Biodegradability in soil: not applicable. Biodegradability: not applicable.

Biochemical oxygen demand (BOD) : Not applicable (inorganic)
12.3. Bioaccumulative potential

Sodium Sulfate Anhydrous (7757-82-6)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF other aquatic organisms 1</td>
<td>0.5 (Other, Calculated value)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>-4.38 (Calculated, US EPA)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Not bioaccumulative.</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

Sodium Sulfate Anhydrous (7757-82-6)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface tension</td>
<td>0.071 N/m (20 °C, 1.005 g/l)</td>
</tr>
<tr>
<td>Ecology - soil</td>
<td>No (test)data on mobility of the substance available.</td>
</tr>
</tbody>
</table>

12.5. Results of PBT and vPvB assessment

Sodium Sulfate Anhydrous (7757-82-6)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional legislation (waste)</td>
<td>LWCA (the Netherlands): KGA category 05.</td>
</tr>
<tr>
<td>Waste treatment methods</td>
<td>Dispose of contents/container in accordance with licensed collector’s sorting instructions.</td>
</tr>
<tr>
<td>Product/Packaging disposal recommendations</td>
<td>Remove waste in accordance with local and/or national regulations. Recycle/reuse. Remove to an authorized dump (Class I). Precipitate/make insoluble.</td>
</tr>
</tbody>
</table>

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-No. (ADR)</td>
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<tr>
<td>UN-No. (IMDG)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>UN-No. (IATA)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>UN-No. (ADN)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>UN-No. (RID)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

14.2. UN proper shipping name

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name (ADR)</td>
<td>Not regulated for transport</td>
</tr>
<tr>
<td>Proper Shipping Name (IMDG)</td>
<td>Not regulated for transport</td>
</tr>
<tr>
<td>Proper Shipping Name (IATA)</td>
<td>Not regulated for transport</td>
</tr>
<tr>
<td>Proper Shipping Name (ADN)</td>
<td>Not regulated for transport</td>
</tr>
<tr>
<td>Proper Shipping Name (RID)</td>
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</tbody>
</table>

14.3. Transport hazard class(es)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>Not applicable</td>
</tr>
<tr>
<td>IMDG</td>
<td>Not applicable</td>
</tr>
<tr>
<td>IATA</td>
<td>Not applicable</td>
</tr>
<tr>
<td>ADN</td>
<td>Not applicable</td>
</tr>
<tr>
<td>RID</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

14.4. Packing group

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing group (ADR)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Packing group (IMDG)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
Sodium Sulfate Anhydrous
Safety Data Sheet
according to Regulation (EC) No. 453/2010

14.5. Environmental hazards
Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user
Overland transport
Transport regulations (ADR) : Not subject

Transport by sea
Transport regulations (IMDG) : Not subject

Air transport
Transport regulations (IATA) : Not subject

Inland waterway transport
Transport regulations (ADN) : Not subject

Rail transport
Transport regulations (RID) : Not subject

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations
No REACH Annex XVII restrictions
Sodium Sulfate Anhydrous is not on the REACH Candidate List
Sodium Sulfate Anhydrous is not on the REACH Annex XIV List

VOC content : Not applicable (inorganic)
Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. Chemical safety assessment
No additional information available

SECTION 16: Other information

Indication of changes:
This sheet was updated (refer to the date at the top of this page).

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.