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

1.1. Product identifier

Product form: Substance
Substance name: Potassium Sulfate
Chemical name: Potassium Sulfate
CAS No: 7778-80-5
Product code: 2680, 2681, 2682, 2683, 2684, 2685, 2687, 2688 & 3683
Formula: K₂PO₄
Synonyms: dipotassium sulfate / dipotassium sulphate / granupotasse / potassium sulfate (2:1) / potassium sulfate, anhydrous / potassium sulfate, containing in the dry state more than 52 per cent by weight of K₂O / potassium sulphate / SOP / sulfate of potash / sulfuric acid, dipotassium salt
Other means of identification: Sulfuric Acid Dipotassium salt
BIG no: 17764

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

Use of the substance/mixture: Food industry: additive
Pharmaceutical product: active ingredient
Fertilizer

1.3. Details of the supplier of the safety data sheet

Jost Chemical Co.
8150 Lackland Rd.
Saint Louis, Missouri 63114
T 314-428-4300 - F 314-428-4366
www.jostchemical.com

1.4. Emergency telephone number

Emergency number: CHEMTREC 800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)
Not classified

2.2. Label elements

GHS-US labeling
No labeling applicable

2.3. Other hazards

Other hazards not contributing to the classification: None, to our knowledge.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Full text of H-phrases: see section 16

3.2. Mixture

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.
First-aid measures after inhalation: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact: Wash with water and soap. Take victim to a doctor if irritation persists.
First-aid measures after eye contact: Rinse with water. Take victim to an ophthalmologist if irritation persists.
### First-aid measures after ingestion


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

<table>
<thead>
<tr>
<th>Symptoms/injuries after inhalation</th>
<th>AFTER INHALATION OF DUST: Coughing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms/injuries after skin contact</td>
<td>Slight irritation.</td>
</tr>
<tr>
<td>Symptoms/injuries after eye contact</td>
<td>ON CONTINUOUS EXPOSURE/CONTACT: Redness of the eye tissue. Irritation of the eye tissue.</td>
</tr>
<tr>
<td>Chronic symptoms</td>
<td>ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation. Respiratory difficulties.</td>
</tr>
</tbody>
</table>

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Adapt extinguishing media to the environment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable extinguishing media</td>
<td>No unsuitable extinguishing media known.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Fire hazard</th>
<th>DIRECT FIRE HAZARD. No fire hazard. INDIRECT FIRE HAZARD. No fire hazard.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion hazard</td>
<td>DIRECT EXPLOSION HAZARD. No direct explosion hazard.</td>
</tr>
<tr>
<td>Reactivity</td>
<td>On heating/burning on exposure to temperature rise: release of toxic and corrosive gases/vapours (sulphur oxides). In molten state: reacts violently with (some) metals.</td>
</tr>
</tbody>
</table>

#### 5.3. Advice for firefighters

<table>
<thead>
<tr>
<th>Precautionary measures fire</th>
<th>Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firefighting instructions</td>
<td>Dilute toxic gases with water spray.</td>
</tr>
<tr>
<td>Protection during firefighting</td>
<td>Heat/fire exposure: compressed air/oxygen apparatus.</td>
</tr>
</tbody>
</table>

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency procedures</td>
<td>Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes.</td>
</tr>
<tr>
<td>Measures in case of dust release</td>
<td>In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.</td>
</tr>
</tbody>
</table>

##### 6.1.2. For emergency responders

<table>
<thead>
<tr>
<th>Protective equipment</th>
<th>Do not attempt to take action without suitable protective equipment. Do not attempt to take action without suitable protective equipment. For further information refer to section 8 Exposure controls/personal protection&quot;. For further information refer to section 8 Exposure controls/personal protection&quot;.</th>
</tr>
</thead>
</table>

#### 6.2. Environmental precautions

Avoid release to the environment. Do not allow product to spread into the environment. Do not discharge into drains or rivers.

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

<table>
<thead>
<tr>
<th>For containment</th>
<th>Contain released substance, pump into suitable containers. Consult &quot;Material-handling&quot; to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methods for cleaning up</td>
<td>Prevent dust cloud formation. Scoop solid spill into closing containers. See &quot;Material-handling&quot; for suitable container materials. Wash down leftovers with plenty of water. Wash clothing and equipment after handling.</td>
</tr>
<tr>
<td>Other information</td>
<td>Dispose of materials or solid residues at an authorized site.</td>
</tr>
</tbody>
</table>
6.4. Reference to other sections
For further information refer to section 8: Exposure-controls/personal protection™. For further information refer to section 8: Exposure-controls/personal protection™.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Comply with the legal requirements. Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Hygiene measures: Do not drink, eat or smoke in the workplace. Always wash hands after handling the product. 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 measures.


Heat-ignition: KEEP SUBSTANCE AWAY FROM: heat sources.

Storage area: Store in a dry area. Store at room temperature. Keep container in a well-ventilated place. Meet the legal requirements.

Special rules on packaging: SPECIAL REQUIREMENTS: closing, dry, correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials: SUITABLE MATERIAL: wood. glass. MATERIAL TO AVOID: aluminium.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No additional information available

8.2. Exposure controls
Appropriate engineering controls: Ensure good ventilation of the work station. Extraction to remove dust at its source. Ensure good ventilation of the work station.


Materials for protective clothing: GIVE GOOD RESISTANCE: rubber.
Hand protection: Gloves.
Skin and body protection: Protective clothing.

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
Color: Colourless to white
Odor: Odourless
Odor threshold: No data available
pH: 2.5 - 5
pH solution: 5 %
Melting point: 1067 °C
Freezing point: Not applicable
Potassium Sulfate
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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling point</td>
<td>1689 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non oxidizing material according to EC criteria.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>2.7</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Specific gravity / density</td>
<td>2661 kg/m³</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>174.26 g/mol</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td></td>
<td>Water: 11 g/100ml</td>
</tr>
<tr>
<td>Log Pow</td>
<td>Not applicable (inorganic substance)</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

Minimum ignition energy: Not applicable
SADT: Not applicable
VOC content: Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
On heating/burning on exposure to temperature rise: release of toxic and corrosive gases/vapours (sulphur oxides). In molten state: reacts violently with (some) metals.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None to our knowledge.

10.4. Conditions to avoid
Heat.

10.5. Incompatible materials
Strong oxidizing agents. Aluminum.

10.6. Hazardous decomposition products
On combustion or on thermal decomposition (pyrolysis) releases: Potassium oxides. Sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure: Skin and eyes contact.; Inhalation; Ingestion.
Acute toxicity: Not classified
Skin corrosion/irritation: Not classified
pH: 2.5 - 5
Serious eye damage/irritation: Not classified
pH: 2.5 - 5
Respiratory or skin sensitization: Not classified
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Germ cell mutagenicity : Not classified
OECD 471 (OECD 473 method)

Carcinogenicity : Not classified

Reproductive toxicity : Not classified
OECD 422 method
NOAEL (oral, rat) : >= 1500 mg/kg/d

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : AFTER INHALATION OF DUST: Coughing.

Symptoms/injuries after skin contact : Slight irritation.

Symptoms/injuries after eye contact : ON CONTINUOUS EXPOSURE/CONTACT: Redness of the eye tissue. Irritation of the eye tissue.


Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation. Respiratory difficulties.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general : Classification concerning the environment: not applicable.
Ecology - water : Mild water pollutant (surface water). Maximum concentration in drinking water: 250 mg/l (sulfate) (Directive 98/83/EC). Slightly harmful to fishes (LC50(96h) 100-1000 mg/l). Slightly harmful to invertebrates (Daphnia) (EC50 (48h): 100 - 1000 mg/l). Not harmful to algae (EC50 (72h) >1000 mg/l).

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods : Dispose of in accordance with relevant local regulations.
Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Recycle/reuse. Precipitate/make insoluble. Remove to an authorized dump (Class I).
Additional information : LWCA (the Netherlands): KGA category 05. Can be considered as non hazardous waste according to Directive 2008/98/EC.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated for transport

Additional information
Other information : Not applicable.
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**Transport by sea**

No additional information available

**Air transport**

No additional information available

**SECTION 15: Regulatory information**

15.1. US Federal regulations

<table>
<thead>
<tr>
<th>Potassium Sulfate (7778-80-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>

15.2. International regulations

CANADA

<table>
<thead>
<tr>
<th>Potassium Sulfate (7778-80-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the Canadian DSL (Domestic Substances List) inventory.</td>
</tr>
</tbody>
</table>

EU-Regulations

<table>
<thead>
<tr>
<th>Potassium Sulfate (7778-80-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.</td>
</tr>
</tbody>
</table>

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not classified

**Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]**

Not classified

**National regulations**

<table>
<thead>
<tr>
<th>Potassium Sulfate (7778-80-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the AICS (the Australian Inventory of Chemical Substances)</td>
</tr>
<tr>
<td>Listed on Inventory of Existing Chemical Substances (IECSC)</td>
</tr>
<tr>
<td>Listed on the Japanese ENCS (Existing &amp; New Chemicals Substances) inventory.</td>
</tr>
<tr>
<td>Listed on the Korean ECL (Existing Chemical List) inventory.</td>
</tr>
<tr>
<td>Listed on INSQ (Mexican national Inventory of Chemical Substances)</td>
</tr>
<tr>
<td>Listed on New Zealand - Inventory of Chemicals (NZIoC)</td>
</tr>
<tr>
<td>Listed on Inventory of Chemicals and Chemical Substances (PICCS)</td>
</tr>
</tbody>
</table>

15.3. US State regulations

**SECTION 16: Other information**

**Indication of changes**

: Initial SDS.

**NFPA health hazard**

: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

**NFPA fire hazard**

: 0 - Materials that will not burn.

**NFPA reactivity**

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
Potassium Sulfate

Safety Data Sheet

HMIS III Rating
Health : 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability : 0 Minimal Hazard - Materials that will not burn
Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection : E
E - Safety glasses, Gloves, Dust respirator

SDS US Custom (-ADR)

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.