1. Identification

Product identifier: SULFURATED POTASH

Other means of identification:
- **Product code:** 2296
- **CAS number:** 39365-88-3
- **Synonyms:** LIVER OF SULFUR * POTASSIUM SULFIDE * POTASH SULFURATED * Thiosulfuric acid (H2S2O3), dipotassium salt, mixture with potassium sulfide (K2(Sx))

**Recommended use:** professional, scientific and technical activities: other professional, scientific and technical activities

**Recommended restrictions:** None known.

Manufacturer/Importer/Supplier/Distributor information

**Manufacturer**
- **Company name:** GFS Chemicals, Inc.
- **Address:** P.O. Box 245, Powell, OH 43065, United States
- **Emergency phone number:** Emergency Assistance: Chemtrec 800-424-9300

**Telephone**
- **Phone:** 740-881-5501
- **Toll Free:** 800-858-9682
- **Fax:** 740-881-5989

**Website:** www.gfschemicals.com

**E-mail:** service@gfschemicals.com

2. Hazard(s) identification

**Physical hazards:** Not classified.

**Health hazards:**
- **Skin corrosion/irritation:** Category 1B
- **Serious eye damage/eye irritation:** Category 1

**Environmental hazards:** Hazardous to the aquatic environment, acute hazard

**OSHA defined hazards:** Not classified.

**Label elements**

- **Signal word:** Danger
- **Hazard statement:** Causes severe skin burns and eye damage. Causes serious eye damage. Very toxic to aquatic life.
- **Precautionary statement**
  - **Prevention:** Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
  - **Response:** If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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 or doctor/physician. Wash contaminated clothing before reuse. Collect spillage.
  - **Storage:** Store locked up. Keep container tightly closed.
  - **Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Hazard(s) not otherwise classified (HNOC)**
- **None known.**

**Supplemental information:** None.

3. Composition/information on ingredients

**Substances**

- **Material name:** SULFURATED POTASH
- **Version #:** 02
- **Revision date:** October-11-2017
- **Issue date:** July-23-2015
**Chemical name** | **Common name and synonyms** | **CAS number** | **%**
--- | --- | --- | ---
SULFURATED POTASH | LIVER OF SULFUR POTASSIUM SULFIDE POTASH SULFURATED Thiosulfuric acid (H2S2O3), dipotassium salt, mixture with potassium sulfide (K2(Sx)) | 39365-88-3 | 100

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

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

**Skin contact**
Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

**Eye contact**
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

**Ingestion**
Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**Most important symptoms/effects, acute and delayed**
- Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

**Indication of immediate medical attention and special treatment needed**
- Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

**General information**
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

**Suitable extinguishing media**
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

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

**Specific hazards arising from the chemical**
During fire, gases hazardous to health may be formed.

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

**Fire fighting equipment/instructions**
Use water spray to cool unopened containers.

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

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

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**
This product is miscible in water. 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.

**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.

### 7. Handling and storage

**Precautions for safe handling**
Do not get in eyes, on skin, or on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
8. Exposure controls/personal protection

**Occupational exposure limits**
This substance has no PEL, TLV, or other recommended exposure limit.

**Biological limit values**
No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**
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. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**
Wear safety glasses with side shields (or goggles).

**Skin protection**
- **Hand protection**
  Wear appropriate chemical resistant gloves.
- **Other**
  Wear appropriate chemical resistant clothing.
- **Respiratory protection**
  In case of insufficient ventilation, wear suitable respirator protection.
- **Thermal hazards**
  Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**
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.

9. Physical and chemical properties

**Appearance**
Pieces

**Physical state**
Solid.

**Form**
Solid.

**Color**
Yellow to brown.

**Odor**
rotten-egg like

**Odor threshold**
Not available.

**pH**
Not available.

**Melting point/freezing point**
Not available.

**Initial boiling point and boiling range**
Not available.

**Flash point**
Not available.

**Evaporation rate**
Not available.

**Flammability (solid, gas)**
Not available.

**Upper/lower flammability or explosive limits**
- **Flammability limit - lower**
  Not available.
- **Flammability limit - upper**
  Not available.
- **Explosive limit - lower**
  Not available.
- **Explosive limit - upper**
  Not available.

**Vapor pressure**
Not available.

**Vapor density**
Not available.

**Relative density**
Not available.

**Solubility(ies)**
- **Solubility (water)**
  Soluble

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

**Auto-ignition temperature**
Not available.

**Decomposition temperature**
Not available.

**Viscosity**
Not available.

**Other information**
- **Explosive properties**
  Not explosive.
Oxidizing properties
Not oxidizing.

10. Stability and reactivity
Reactivity
The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability
Material is stable under normal conditions.
Possibility of hazardous reactions
Hazardous polymerization does not occur.
Conditions to avoid
Contact with incompatible materials.
Incompatible materials
Acids. Strong oxidizing agents.
Hazardous decomposition products
Sulfur oxides. Irritating and/or toxic fumes and gases may be emitted upon the product’s decomposition.

11. Toxicological information
Information on likely routes of exposure
Inhalation
May cause irritation to the respiratory system.
Skin contact
Causes severe skin burns.
Eye contact
Causes serious eye damage.
Ingestion
Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics
Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects
Acute toxicity
Not known.
Skin corrosion/irritation
Causes severe skin burns and eye damage.
Serious eye damage/eye irritation
Causes serious eye damage.
Respiratory or skin sensitization
Respiratory sensitization
Not a respiratory sensitizer.
Skin sensitization
This product is not expected to cause skin sensitization.
Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity
Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity
Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens
Not listed.

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure
Not classified.
Specific target organ toxicity - repeated exposure
Not classified.
Aspiration hazard
Not an aspiration hazard.

12. Ecological information
Ecotoxicity
Very toxic to aquatic life.
Persistence and degradability
No data is available on the degradability of this substance.
Bioaccumulative potential
No data available.
Mobility in soil
No data available.
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.

13. Disposal considerations
Disposal instructions
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.

Local disposal regulations
Dispose in accordance with all applicable regulations.
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
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.

14. Transport information

**DOT**

**UN number**
UN3262

**UN proper shipping name**
Corrosive solid, basic, inorganic, n.o.s. (SULFURATED POTASH)

**Transport hazard class(es)**
- Class 8
- Subsidiary risk -
- Label(s) 8
- Packing group II

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

**Special provisions**
IB8, IP2, IP4, T3, TP33

**Packaging exceptions**
154

**Packaging non bulk**
212

**Packaging bulk**
240

**IATA**

**UN number**
UN3262

**UN proper shipping name**
Corrosive solid, basic, inorganic, n.o.s. (SULFURATED POTASH)

**Transport hazard class(es)**
- Class 8
- Subsidiary risk -
- Packing group II
- Environmental hazards No.
- ERG Code 8L

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

**Other information**
- Passenger and cargo aircraft
  - Allowed with restrictions.
- Cargo aircraft only
  - Allowed with restrictions.

**IMDG**

**UN number**
UN3262

**UN proper shipping name**
CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (SULFURATED POTASH)

**Transport hazard class(es)**
- Class 8
- Subsidiary risk -
- Packing group II
- Environmental hazards No.
- Marine pollutant
- EmS F-A, S-B

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

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Not applicable.

**DOT**

Material name: SULFURATED POTASH
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15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
- Immediate Hazard - Yes
- Delayed Hazard - No
- Fire Hazard - No
- Pressure Hazard - No
- Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312
Hazardous chemical
Yes

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
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<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
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<tr>
<td>China</td>
<td>Non-Domestic Substances List (NDSL)</td>
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<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
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<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
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<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
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<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
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<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
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<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
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<tr>
<td>Taiwan</td>
<td>Taiwan Toxic Chemical Substances (TCS)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Material name: SULFURATED POTASH

2296    Version #: 02    Revision date: October-11-2017    Issue date: July-23-2015
Country(s) or region | Inventory name                               | On inventory (yes/no)*
-------------------|---------------------------------------------|----------------------
United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date: July-23-2015
Revision date: October-11-2017
Version #: 02

Disclaimer
GFS 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. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information
This document has undergone significant changes and should be reviewed in its entirety.