SODIUM BISULFATE
SAFETY DATA SHEET

Sodium bisulfate, anhydrous, technical grade

Section 1. Identification

GHS product identifier: Sodium bisulfate, anhydrous, technical grade
Other means of identification: Nitre cake, GBS, Sodium hydrogensulphate

Identified uses:
Cleaning compounds, pH adjustment. Not approved for use in food or animal feed.

Supplier's details:
PRO Chemical & Dye
126 Shove Street
Fall River, MA 02724

Emergency Telephone Numbers:
800-255-3924 ChemTel. (United States)
+ 1 01 813-248-0585 (Outside the United States)

Section 2. Hazards identification

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard
Classification of the substance or mixture:
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

GHS label elements:
Hazard pictograms

Signal word: Danger
Hazard statements:
H318 - Causes serious eye damage.

Precautionary statements:
Prevention:
P280 - Wear eye or face protection.
P264 - Wash hands thoroughly after handling.

Response:
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 or physician.
Not applicable.

Storage:
Not applicable.

Disposal:
None known.

Hazards not otherwise classified:
None known.
Section 3. Composition/information on ingredients

Substance/mixture: Nitre cake, G8S, Sodium hydrogensulphate

CAS number/other identifiers

CAS number
United States - Mexico: Not applicable.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium bisulfate</td>
<td>&gt;90</td>
<td>7681-38-1</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. If redness or irritation persists, get prompt medical attention.

Inhalation
Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If irritation or discomfort persists, seek medical attention.

Skin contact
In case of contact, immediately flush skin with plenty of water for at least 20 minutes. If skin irritation occurs, seek medical attention.

Ingestion
Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If irritation or discomfort persists, seek medical attention.

Ingestion
Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call medical doctor or poison control center immediately.

Most important symptoms/effects. acute and delayed

Potential acute health effects

Eye contact
Causes serious eye damage.

Inhalation
Inhalation of dust may irritate nose, throat and/or lungs.

Skin contact
Prolonged exposure may cause skin irritation.

Ingestion
Small amounts (tablespoonful) swallowed are not likely to cause injury; however, swallowing large amounts may irritate or burn digestive tract.

Over-exposure signs/symptoms

Eye contact
Adverse symptoms may include the following:
- pain
- watering
- redness

Inhalation
No known significant effects or critical hazards.

Skin contact
Adverse symptoms may include the following:
- pain or irritation
- redness
- blistering may occur if repeated exposure

Adverse symptoms may include the following:
- stomach pains
Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments
No specific treatment.

Protection of first-aiders
No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media
Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media
None known.

Specific hazards arising from the chemical

Hazardous thermal decomposition products
Decomposition products may include the following materials:
Sulfur oxides

Special protective actions for fire-fighters
No special measures are required.

Special protective breathing equipment for fire-fighters
Fire-fighters should wear appropriate protective equipment and self-contained apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders
If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill
Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill
Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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Section 7. Handling and storage

Precautions for safe handling

Protective measures
Put on appropriate personal protective equipment (see Section 8). Avoid breathing dusts. Wash thoroughly after handling.

Advice on general occupational hygiene
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities
Material is hygroscopic and will readily absorb moisture. DO NOT store dry product where exposed to moist conditions. Keep container tightly closed.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits
None.

Mexico
None.

Appropriate engineering controls
If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures
Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Safety eyewear should be used when there is a likelihood of exposure.
Recommended:
Safety glasses with side shields.

Skin protection

Hand protection
Use gloves appropriate for work or task being performed. Recommended:
Rubber gloves.

Body protection
Cotton-blend coveralls.

Other skin protection
Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection
In dusty atmospheres (>10 mg/m³), use a NIOSH-approved dust respirator.

Section 9. Physical and chemical properties

Appearance

Physical state
Dry (Anhydrous) crystalline solid spherical shape beads.

Color
Off-white.

Odor
Fresh to pungent.

Odor threshold
Not available.

pH
<1 [Conc. (w/w): 5]

Melting point
17°C (350.6°F)
2. **Section 9. Physical and chemical properties**

- **Boiling point**: Not available.
- **Flash point**: Not available.
- **Evaporation rate**: Not available.
- **Flammability (solid, gas)**: Not available.
- **Lower and upper explosive (flammable) limits**: Not available.
- **Vapor pressure**: Not available.
- **Vapor density**: Not available.
- **Relative density**: 1.28
- **Solubility**: Partially soluble in the following materials: cold water and hot water.
- **Partition coefficient: n-octanol/water**: Not available.
- **Auto-ignition temperature**: Not available.
- **Decomposition temperature**: Not available.
- **Viscosity**: Not available.
- **Volatile**: Not available.

<table>
<thead>
<tr>
<th>Section 10. Stability and reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reactivity</strong></td>
</tr>
<tr>
<td><strong>Chemical stability</strong></td>
</tr>
<tr>
<td><strong>Possibility of hazardous reactions</strong></td>
</tr>
<tr>
<td><strong>Conditions to avoid</strong></td>
</tr>
<tr>
<td><strong>Incompatible materials</strong></td>
</tr>
<tr>
<td><strong>Hazardous decomposition products</strong></td>
</tr>
</tbody>
</table>

**Section 11. Toxicological information**

**Information on toxicological effects**

<table>
<thead>
<tr>
<th>Acute toxicity</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium bisulfate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2800 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

| Irritation/Corrosion     | There is no data available. |
| Sensitization           | There is no data available. |
| Carcinogenicity          | There is no data available. |
Section 11. Toxicological information

Specific target organ toxicity (single exposure)
There is no data available.

Specific target organ toxicity (repeated exposure)
There is no data available.

Aspiration hazard
There is no data available.

Information on the likely routes of exposure
Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact
Causes serious eye damage.

Inhalation
Inhalation of dust may irritate nose, throat and/or lungs.

Skin contact
Prolonged exposure may cause skin irritation.

Ingestion
Small amounts (tablespoonful) swallowed are not likely to cause injury; however, swallowing large amounts may irritate or burn digestive tract.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact
Adverse symptoms may include the following:
- pain
- watering
- redness

Inhalation
No known significant effects or critical hazards.

Skin contact
Adverse symptoms may include the following:
- pain or irritation
- redness
- blistering may occur if repeated exposure

Adverse symptoms may include the following:
- stomach pains

Ingestion
No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects

Potential delayed effects
No known significant effects or critical hazards.

Long term exposure

Potential immediate effects
No known significant effects or critical hazards.

Potential delayed effects
No known significant effects or critical hazards.

Potential chronic health effects

General
No known significant effects or critical hazards.

Carcinogenicity
No known significant effects or critical hazards.

Mutagenicity
No known significant effects or critical hazards.

Teratogenicity
No known significant effects or critical hazards.

Developmental effects
No known significant effects or critical hazards.

Fertility effects
No known significant effects or critical hazards.

Numerical measures of toxicity
Section 11. Toxicological information

Acute toxicity estimates

Route   \( \text{ATE value} \)

Oral  3080.3 mg/kg

Section 12. Ecological information

Toxicity
There is no data available.

Persistence and degradability
There is no data available.

Bioaccumulative potential
There is no data available.

Mobility in soil
Soil/water partition coefficient (Koc)
There is no data available.

Other adverse effects
: This product readily dissolves in water to form a weak acid solution. A 0.05 percent or greater (by weight) solution of this product will likely be acutely harmful to aquatic life.

Section 13. Disposal considerations

Disposal methods
The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Empty containers or liners may retain some product residues. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT/MEX Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Additional information</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

AERG Not applicable.
Section 14. Transport information

Special precautions for user: Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex I of MARPOL 73/78 and the IBC Code

Not available.

Section 15. Regulatory information

U.S. Federal regulations

TSCA 8(a) COR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 Class I Substances

Clean Air Act Section 602 Class II Substances

DEA List I Chemicals (Precursor Chemicals)

DEA List I Chemicals (Essential Chemicals)

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ

Not applicable.

Classification

Immediate (acute) health hazard

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium bisulfate</td>
<td>&gt;90</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
</tbody>
</table>

State regulations

Massachusetts None of the components are listed.

New York None of the components are listed.

New Jersey None of the components are listed.

Pennsylvania None of the components are listed.

California Prop. 65 No products were found.

Mexico Classification

Health 1

Flammability 0

Reactivity 0

Special

Section 16. Other information

History

Date of issue mm/dd/yyyy 01/01/2015

Date of previous issue 11/01/2010

Version 5

Key to abbreviations

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labeling of Chemicals

IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient
UN = United Nations

Notice to reader
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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.