Sodium Bisulfate

S3050 -02
Effective: 03/09/92

J.T. BAKER INC., 222 Red School Lane, Phillipsburg, NJ 08865

SECTION I - PRODUCT IDENTIFICATION

Product Name: Sodium Bisulfate
Common Synonyms: N/A
Chemical Family: Inorganic Sodium Compounds
Formula: NaHSO₄·H₂O
Formula Wt.: 138.07
CAS No.: 7681-38-1
NIOSH/RTECS No.: UZ1860000
Product Use: Laboratory Reagent
Product Codes: 3538, 3534

PRECAUTIONARY LABELING

BAKER SAF-T-DATA+ System

HEALTH FLAMMABILITY REACTIVITY CONTACT
1 0 0 1
SLIGHT NONE NONE SLIGHT

Laboratory Protective Equipment

U.S. Precautionary Labeling

CAUTION!
MAY BE HARMFUL IF SWALLOWED. MAY CAUSE IRRITATION.
During use avoid contact with eyes, skin, clothing. Wash thoroughly after handling. When not in use keep in tightly closed container.
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PRECAUTIONARY LABELING (CONTINUED)

International Labeling

Causes burns. Irritating to respiratory system. Do not breathe dust. After contact with skin, wash immediately with plenty of soap and water.

SAF-T-DATA* Storage Color Code: Orange (general storage)

SECTION II - COMPONENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Weight %</th>
<th>OSHA/PEL</th>
<th>ACGIH/TLU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bisulfate</td>
<td>7681-38-1</td>
<td>90-100</td>
<td>N/E</td>
<td>N/E</td>
</tr>
</tbody>
</table>

SECTION III - PHYSICAL DATA

Boiling Point: N/A  Vapor Pressure (mmHg): N/A

Melting Point: 59°C (138°F)  Vapor Density (air=1): N/A
(at 760 mm Hg)

Specific Gravity: 2.10  Evaporation Rate: N/A
(H₂O=1)

Solubility(H₂O): Appreciable (>10%)  % Volatiles by Volume: 0

pH: N/A  (21°C)

Odor Threshold (ppm): N/A  Physical State: Solid

Coefficient Water/Oil Distribution: N/A

Appearance & Odor: White crystals or powder. Odorless.

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=================================================================
SECTION IV - FIRE AND EXPLOSION HAZARD DATA
=================================================================

Flash Point (Closed Cup): N/A
Autoignition Temperature: N/A
Flammable Limits: Upper - N/A Lower - N/A

Fire Extinguishing Media
Use extinguishing media appropriate for surrounding fire.

Special Fire-Fighting Procedures
Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode.

Unusual Fire & Explosion Hazards
None identified.

Toxic Gases Produced
sulfur dioxide

Explosion Data-Sensitivity to Mechanical Impact
None identified.

Explosion Data-Sensitivity to Static Discharge
None identified.

=================================================================
SECTION V - HEALTH HAZARD DATA
=================================================================

Threshold Limit Value (TLU/TWA): Not Established
Short-Term Exposure Limit (STEL): Not Established
Permissible Exposure Limit (PEL): Not Established

Toxicity of Components
No information is available
Carcinogenicity: NTP: No IARC: No Z List: No OSHA Reg: No

Carcinogenicity
None identified.

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SECTION V - HEALTH HAZARD DATA (CONTINUED)

Reproductive Effects
None identified.

Effects of Overexposure

INHALATION: irritation of upper respiratory tract
SKIN CONTACT: irritation
EYE CONTACT: irritation
SKIN ABSORPTION: none identified
INGESTION: headache, nausea, vomiting, dizziness, gastrointestinal irritation
CHRONIC EFFECTS: none identified

Target Organs
none identified

Medical Conditions Generally Aggravated by Exposure
none identified

Primary Routes of Entry
none indicated

Emergency and First Aid Procedures

INGESTION: If swallowed and the person is conscious, immediately give large amounts of water. Get medical attention.

INHALATION: If a person breathes in large amounts, move the exposed person to fresh air.

SKIN CONTACT: In case of contact, immediately wash skin with plenty of soap and water for at least 15 minutes.

EYE CONTACT: In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

SARA/TITLE III HAZARD CATEGORIES and LISTS

Acute: No  Chronic: No  Flammability: No  Pressure: No  Reactivity: No

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SECTION V - HEALTH HAZARD DATA (CONTINUED)

Extremely Hazardous Substance: No
CERCLA Hazardous Substance: No
SARA 313 Toxic Chemicals: No
TSCA Inventory: Yes

SECTION VI - REACTIVITY DATA

Stability: Stable
Hazardous Polymerization: Will not occur

Conditions to Avoid: none documented
Incompatibles: water
Decomposition Products: oxides of sulfur

SECTION VII - SPILL & DISPOSAL PROCEDURES

Steps to be Taken in the Event of a Spill or Discharge
Wear suitable protective clothing. Carefully sweep up and remove.

Disposal Procedure
Dispose in accordance with all applicable federal, state, and local environmental regulations.

SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

Ventilation:
Use adequate general or local exhaust ventilation to keep fume or dust levels as low as possible.

Respiratory Protection:
None required where adequate ventilation conditions exist. If airborne concentration is high, use an appropriate respirator or dust mask.

Eye/Skin Protection:
Safety goggles, proper gloves are recommended.
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SECTION IX - STORAGE AND HANDLING PRECAUTIONS

SAF-T-DATA* Storage Color Code: Orange (general storage)

Storage Requirements
Keep container tightly closed. Suitable for any general chemical storage area.

SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

Domestic (D.O.T.)

Proper Shipping Name: Sodium hydrogen sulphate, solid (air only)
Hazard Class: ORM-B
UN/NA: UN1821
Labels: NONE
Regulatory References: 49CFR 172.101; 173.500; 173.510

International (I.M.O.)

Proper Shipping Name: Sodium bisulphate, solid
Hazard Class: 8
UN: UN1821  Marine Pollutants: No
Labels: CORROSIVE
Regulatory References: 49CFR 172.12(b); IMDG Code

AIR (I.C.A.O.)

Proper Shipping Name: Sodium bisulphate, solid
Hazard Class: 8
UN: UN1821
Labels: CORROSIVE
Regulatory References: 49CFR 172.101; ICAO We believe the transportation data and references contained herein to be factual and the opinion of qualified experts. The data is meant as a guide to the overall classification of the product and is not package size specific, nor should it be taken as a warranty or representation for which the company assumes legal responsibility. The information is offered solely for your consideration, investigation, and verification. Any use of the information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations. See shipper requirements 49CFR 172.3 and employee training 49CFR 173.1.
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U.S. Customs Harmonization Number: 28331900008

N/A = Not Applicable or Not Available
N/E = Not Established

The information in this Material Safety Data Sheet meets the
requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and
regulations promulgated thereunder (29 CFR 1910.1200 etc. seq.) and the
Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document
is intended only as a guide to the appropriate precautionary handling of
the material by a person trained in, or supervised by a person trained
in, chemical handling. The user is responsible for determining the
precautions and dangers of this chemical for his or her particular
application. Depending on usage, protective clothing including eye and
face guards and respirators must be used to avoid contact with material
or breathing chemical vapors/fumes.

Exposure to this product may have serious adverse health effects. This
chemical may interact with other substances. Since the potential uses
are so varied, Baker cannot warn of all of the potential dangers of use
or interaction with other chemicals or materials. Baker warrants that
the chemical meets the specifications set forth on the label.

BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD
TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS
FOR A PARTICULAR PURPOSE.

The user should recognize that this product can cause severe injury and
even death, especially if improperly handled or the known dangers of use
are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented
general safety information becomes available, Baker will periodically
revise this Material Safety Data Sheet.

Note: CHEMTREC, CANUTEC, and NATIONAL RESPONSE CENTER emergency telephone
numbers are to be used ONLY in the event of CHEMICAL EMERGENCIES involving
a spill, leak, fire, exposure, or accident involving chemicals. All
non-emergency questions should be directed to Customer Service
(1-800-JTBAKER) for assistance.

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Approved by Quality Assurance Department.