



JONES-HAMILTON CO.

8400 Enterprise Drive, Newark, CA 94560-3310 (510) 797-2471

MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sodium bisulfate, anhydrous globular, technical

Product Code: SBS01

Synonyms: Sodium acid sulfate, Nitre cake, Sodium hydrogen sulfate

Product Use: Cleaning compounds, pH adjustment

Date of MSDS Preparation: January 2003

Manufacturer's Name/Address: Jones-Hamilton Co.
8400 Enterprise Drive
Newark, CA 94560
-or-
30354 Tracy Road
Walbridge, OH 43465

24-Hour Emergency Phone Numbers [U.S.A.]:

California: (510) 797-2471

Ohio: (419) 666-9838

CHEMTREC: (800) 424-9300

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Formula: NaHSO₄

<u>Component</u>	<u>CAS#</u>	<u>% (by weight)</u>	<u>Exposure Limits</u>
Sodium bisulfate	7681-38-1	91.5 – 94.7	None established
Sodium sulfate	7757-82-6	4.8 – 8.0	None established
Moisture	7732-18-5	0.1 – 0.8	None established

OSHA: This material is classified as an irritant under current OSHA regulations.

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Off-white granular material, with the consistency of salt.

Presents little or no hazard if spilled and no unusual hazard if involved in a fire. However, keep out of streams and ditches.

Potential Health Effects:

EYE: Causes mild to severe irritation. May cause burn if not flushed with water.

SKIN: Prolonged exposure may cause moderate irritation. May cause burn if not flushed with water.

INHALATION: Inhalation of dust may irritate or burn nose, throat and lungs.

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

CHRONIC (CANCER) INFORMATION: Not known to cause cancer. Not listed as carcinogen by IARC, NTP or OSHA.

TERATOLOGY (BIRTH DEFECT) INFORMATION: No data available.

REPRODUCTION INFORMATION: No data available.

POTENTIAL ENVIRONMENTAL EFFECTS: Material in dry form is not hazardous to the environment. However, readily dissolves in water to form a weak acid solution. Therefore, keep out of streams and ditches.

SECTION 4 FIRST AID MEASURES

NOTE TO PHYSICIAN: Supportive care. Treatment based on judgment of the physician in response to reactions of the patient. May aggravate pre-existing respiratory conditions.

EYES: Immediately flush eyes with water for at least 15 minutes, lifting eyelids to thoroughly flush. If redness or irritation persists, get prompt medical attention.

SKIN: Immediately flush affected area with water for at least 15 minutes. If burn occurs, seek immediate medical attention.

INHALATION: Remove to fresh air. If irritation or discomfort persists, seek medical attention.

INGESTION: If large amounts are ingested (greater than tablespoonful), drink large quantities of milk or water. Follow with Milk of Magnesia, beaten eggs or vegetable oil. **DO NOT** induce vomiting. **Contact Physician immediately.**

SECTION 5 FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: Not applicable. Material will not burn.

FLAMMABLE LIMITS: Not applicable. Material is non-combustible.

EXTINGUISHING MEDIA: Use extinguishing media appropriate for surrounding fire. Because material will readily dissolve in water to form a weak acid solution, avoid water contact with material if possible.

HAZARDOUS COMBUSTION PRODUCTS: At temperatures over 806^o F (430^o C), product will decompose generating oxides of sulfur.

FIRE FIGHTING INSTRUCTIONS: Product readily dissolves in water to form a weak acid solution. If using water, wear acid protective equipment. No gases or toxic fumes are emitted from this reaction. However, if elevated temperatures (> 806^oF) are reached, self-contained breathing apparatus should be worn.

SECTION 6 ACCIDENTAL RELEASE MEASURES

LAND SPILL: Vacuum or shovel material and place in disposal container. Avoid excessive dust generation. Dilute residual material with ample supply of water and direct to sanitary sewer if Federal, State or Local regulations permit.

WATER SPILL: Readily dissolves in water to form a weak acid solution. If water is isolated or can be contained, neutralize with weak alkaline solution.

Notify appropriate authorities if required by regulations.

SECTION 7 HANDLING AND STORAGE

HANDLING: Wear all recommended personal protective clothing when handling. Avoid contact with eyes. Wash thoroughly after handling. Minimize dust generation. Avoid breathing dust.

STORAGE: Material is hygroscopic and will readily absorb moisture. Keep containers tightly closed. DO NOT store where exposed to moist conditions. DO NOT store near strong alkalis.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to maintain airborne particulate below nuisance levels (>10 mg/m³).

RESPIRATORY PROTECTION: In dusty atmospheres (>10 mg/m³), use a NIOSH-approved dust respirator.

SKIN PROTECTION: Rubber gloves and cotton-blend coveralls.

EYE PROTECTION: Safety glasses or goggles.

GENERAL HYGIENE CONSIDERATIONS: There are no known health hazards associated with this material when used as recommended. Follow good industrial hygiene practices including but not limited to: (1) wash hands after use and before eating; (2) avoid breathing dust; and (3) wear safety glasses.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Off-white granular material.

ODOR: Fresh to Pungent

PHYSICAL STATE: Dry (Anhydrous) crystalline solid spherical shape beads

SOLUBILITY: 1080 g/l @ 68° F (20° C)

MOLECULAR FORMULA: NaHSO₄

PARTICLE SIZE: ±0.75 mm diameter

BULK DENSITY: 80 – 85 lbs/ft³ (loose)

MELTING POINT: 350° F (177° C)

PERCENT VOLATILE: Non-volatile

MOLECULAR WEIGHT: 120

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable.

INCOMPATIBILITY: Avoid contact with strong alkaline material such as caustic. Dissolves readily in water to form a weak acid solution. **DO NOT MIX** with liquid chlorine bleach, ammonia cleansers or similar products.

CONDITIONS TO AVOID: DO NOT store dry product where exposed to moist conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Only if heated over 806° F (430° C), at which sulfur dioxide and sulfur trioxide are formed.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

REPORTED HUMAN EFFECTS: No human data are available for this product.

REPORTED ANIMAL EFFECTS: Oral – LD₅₀ (rat) 2800 mg/kg.

Skin irritation – This material is neither corrosive nor destructive to the skin of New Zealand rabbits. Occasionally, a very slight rash may appear.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: 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 fish and other water organisms.

CHEMICAL FATE INFORMATION: Material will decompose in soil. Studies show that there are no adverse effects of applying the main ingredient in this product (sodium bisulfate) directly to crops. In fact, there are existing products on the market that use sodium bisulfate as a soil additive to improve crop production. However, do not apply excessive quantities to soil.

SECTION 13 DISPOSAL CONSIDERATIONS

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA), 40 CFR Part 261. Dispose of in accordance with local, State and Federal laws and regulations.

SECTION 14 TRANSPORT INFORMATION

DOMESTIC (Land, Department of Transportation): Not regulated.

International (Water, IMO): Not regulated. **International (Air, ICAO & IATA):** Not regulated.

Shipment in Canada: Not regulated. **Surface Shipments in Europe:** Not regulated.

SECTION 15 REGULATORY INFORMATION

OSHA: This product is classified as an **Irritant** by definition of Hazard Communication Standard (29 CFR 1910.1200).

HMIS Rating: Health – 1; Flammability – 0; Reactivity – 1; Protective Equipment – F

NFPA Rating: Health – 1; Flammability – 0; Reactivity – 1; Special Precautions – None

TSCA: Listed in U.S. TSCA Section 8(b) Inventory.

CERCLA (RQ): This product contains no Hazardous Substances listed in 40 CFR Part 302.

SARA Title III: Section 311/312 Hazard Class – Acute.

This product contains NONE of the substances subject to the reporting requirements of Section 313 (40 CFR Part 372).

California Proposition 65: This product does not contain any ingredient known to the State of California to cause cancer or reproductive toxicity as listed under the Safe Drinking Water and Toxic Enforcement Act of 1986.

New Jersey: Department of Health RTK List – sn 1704. Special Hazardous Substances – Corrosive

Australia: List of Designated Hazardous Substances – Corrosive (R34), Harmful (R37)

Canada – WHMIS: Controlled Product Hazard Class D2B. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Canada – CEPA: All components of this product are on the Domestic Substances List (DSL), and acceptable for use under the provisions of CEPA.

European Union (EU): Dangerous Substances (Annex I)

- Risk Phrases: R36/37/38
- Labels: Xi
- Safety Phrases: S8, S22, S24/25, S26, S36 & S50

Germany: Water Classification (VwVwS) – Water Hazard Class: 1

Switzerland: Toxic Substance Classification – Giftklasse 3

Inventories: Australian Inventory of Chemical Substances; China; European Industry of Existing Commercial Chemical Substances (231-665-7); European Union Inventory of Cosmetic Ingredients, Other Ingredients; ICCA High Production Volume Working List; Japan Existing and New Chemical Substances (1-83, 1-491, 1-501); Korea Existing and Evaluated Chemical Substances (KE-31481); Philippines Inventory of Chemicals and Chemical Substances; OECD List of High Production Volume Chemicals.

SECTION 16 OTHER INFORMATION

DISCLAIMER

The information provided herein relates only to the specific material described herein and does not relate to its use by customer whether alone or in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that Jones-Hamilton Co. believes to be reliable, but Jones-Hamilton Co. does not make any representation or warranty as to the accuracy or completeness of this information. This information is intended for use by persons having technical skill and at their own discretion and risk. Customer is responsible for determining whether the information included herein is appropriate for customer's use, and customer assumes full responsibility for conclusions it derives from this information. Neither Jones-Hamilton Co. nor any of its officers, employees, directors, agents or other representatives shall have any liability to customer or any of its officers, employees, directors, agents or other representatives resulting from customer's use of this information. Inasmuch as Jones-Hamilton Co. has no reason to know how customer intends to use the information provided herein, and since conditions of use are outside of our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents.

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