



JONES-HAMILTON CO.

30354 Tracy Road, Walbridge, OH 43465-9792 (419) 666-9838

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

Issue Date: 1/17/05

Supersedes Date: 3/23/04

Manufacturer's Name/Address: Jones-Hamilton Co.
30354 Tracy Road
Walbridge, OH 43465

24-Hour Emergency Phone Numbers [U.S.A.]:
Ohio: (419) 666-9838
CHEMTREC: (800) 424-9300

SECTION 2 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

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

WARNING: Causes eye irritation. May cause skin and respiratory tract irritation. Avoid contact with eyes and skin. Avoid breathing dust. Wash exposed skin thoroughly after handling.

Potential Health Effects: See Section 11 for more information.

Likely Routes of Exposure: Eye contact, skin contact, inhalation.

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.

Medical Conditions Aggravated by Exposure: Pre-existing respiratory conditions.

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC, or NTP.

This material meets the definition of an irritant as defined in OSHA's Hazard Communication Standard (29 CFR 1910.1200).

Potential Environmental Effects: Material in dry form is not hazardous to the environment. However, readily dissolves in water to form a weak acidic solution that is harmful to aquatic life.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS#</u>	<u>% (by weight)</u>
Sodium bisulfate	7681-38-1	91.5 – 94.7
Sodium sulfate	7757-82-6	4.8 – 8.0
Moisture	7732-18-5	0.1 – 0.5

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

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° F (430° 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°F) are reached, self-contained breathing apparatus should be worn.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protection recommended in Section 8.

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

Exposure Guidelines:

Sodium bisulfate – Not established.

Sodium sulfate – Not established.

Engineering Controls: Provide general and/or local exhaust ventilation to maintain airborne particulate below nuisance levels ($>10 \text{ mg/m}^3$).

Eye/Face Protection: Safety glasses or goggles.

Skin Protection: Rubber gloves and cotton-blend coveralls.

Respiratory Protection: In dusty atmospheres ($>10 \text{ mg/m}^3$), use a NIOSH-approved dust respirator.

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) avoid breathing dust; (2) avoid contact with eyes; and (3) wash thoroughly after handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off-white granular material.

Odor: Fresh to Pungent

Physical State: Dry (Anhydrous) crystalline solid spherical shape beads

pH: <1 @ 5% aqueous solution

Solubility (in water): 1080 g/l @ 68° F (20° C)

Particle Size: ±0.75 mm diameter

Flammability (solid): Material is non-combustible

Melting Point: 350° F (177° C)

Bulk Density: 80 – 85 lbs/ft³ (loose)

Molecular Formula: NaHSO₄

Molecular Weight: 120

SECTION 10 STABILITY AND REACTIVITY

Stability: Stable.

Conditions to Avoid: DO NOT store dry product where exposed to moist conditions.

Incompatible Materials: 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.

Hazardous Decomposition Products: Only if heated over 806° F (430° C), at which sulfur dioxide and sulfur trioxide are formed.

Possibility of Hazardous Reactions: 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

Ecotoxicity: 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.

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

Shipment in the United States of America (DOT): Not regulated.

Shipment by water (IMO): Not regulated. Shipment by air (ICAO & IATA): Not regulated.

Shipment in Canada (TDG): Not regulated. Surface Shipments in Europe: Not regulated.

SECTION 15 REGULATORY INFORMATION

TSCA: All chemical substances in this product are 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)

- EC No. 231-665-7
- Labels: Xi (irritant)
- Risk Phrases: R41
- Safety Phrases: S(2-)24-26

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

HMIS[®] Rating: Health – 1; Flammability – 0; Physical Hazard – 0

NFPA 704 Rating: Health – 1; Fire – 0; Reactivity – 0

(0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard)

This document was prepared following ANSI's recommendations for Material Safety Data Sheet Preparation (ANSI Z400.1-2004). The following changes have been made in this updated:

- All reference to Jones-Hamilton Co.'s California location has been removed;
- Sections 2 and 3 are switched;
- Exposure limit information has been moved from Section 3 to Section 8;
- The Emergency Overview statement has been amended to reflect current label statements used for this product;
- Flammability information has been moved from Section 5 to Section 9;
- pH of aqueous solutions has been added to Section 9;
- Miscellaneous formatting, removal of redundant text, edits for clarity.

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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