

**ASTRO PRODUCT CODE: 15063**

**MATERIAL SAFETY DATA SHEET  
PRODUCT: SODIUM BISULFITE SOLUTION**

**SECTION 1 - MANUFACTURER INFORMATION**

**MANUFACTURER/DISTRIBUTOR:**

PVS CHEMICAL SOLUTIONS, INC.  
55 Lee Street  
Buffalo, New York 14210  
(716) 825-5762 (for product information)  
(716) 825-6454 (fax)

**FOR TRANSPORTATION EMERGENCY ONLY - DAY OR NIGHT  
CALL CHEMTREC, 1-800-424-9300**

**PREPARATION/REVISION DATE: 8/29/00  
CONTACT: Manager of Environmental Affairs**

**SECTION 2 -- PRODUCT IDENTITY/HAZARDOUS INGREDIENTS INFORMATION**

Product name: Sodium Bisulfite Solution  
Chemical name/synonyms: Sodium Bisulfite, Aqueous Solution; Sodium Acid Sulfite;  
Sodium Hydrogen Sulfite  
Chemical formula: NaHSO<sub>3</sub>  
CAS number: 7631-90-5  
Product Code:

**HAZARDOUS INGREDIENTS: Yes**

<u>Component</u>	<u>CAS No.</u>	<u>% by wt.</u>
Sodium Bisulfite	7631-90-5	27-42%
Exposure limits:	ACGIH TLV:	5 mg/m <sup>3</sup> , 8-hr TWA
	OSHA PEL:	5 mg/m <sup>3</sup> , 8-hr TWA
	Other	No Information

**NON-HAZARDOUS INGREDIENTS: Yes**

<u>Component</u>	<u>CAS No.</u>	<u>% by wt.</u>
Water	7732-18-5	Balance

**OSHA 29 CFR 1910.1200 EVALUATION: Hazardous**

**SECTION 3 -- PHYSICAL/CHEMICAL CHARACTERISTICS**

APPEARANCE AND ODOR:	Clear, pale yellow liquid with an odor of sulfur dioxide.
BOILING POINT:	>100 °C
MELTING POINT:	no information
VAPOR PRESSURE (REID):	78 mm Hg @ 37.7 °C
VAPOR DENSITY (AIR = 1):	no information
SPECIFIC GRAVITY (WATER = 1):	1.26 to 1.37 @ 25 °C
PERCENT VOLATILE BY VOL.@ 55 °C:	no information
EVAPORATION RATE (BUTYL ACETATE = 1):	<1
pH:	3 to 4
SOLUBILITY IN WATER:	Complete

**SECTION 4 -- FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT (CLOSED CUP METHOD): N/A  
FLAMMABLE LIMITS IN AIR, % BY VOLUME: N/A LOWER: N/A UPPER: N/A

EXTINGUISHING MEDIA: Use water, foam, dry chemical, or CO<sub>2</sub> fire extinguishers as appropriate to fight surrounding fires.

SPECIAL FIRE FIGHTING PROCEDURES: Wear protective clothing and protective equipment as appropriate for surrounding fire. Keep storage tanks or containers cool. Flood with water. Wear self contained breathing apparatus for major exposure when release of SO<sub>2</sub> gas is possible.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Releases sulfur dioxide gas when heated.

**SECTION 5 -- REACTIVITY DATA**

STABILITY: Stable

HAZARDOUS POLYMERIZATION: will not occur

INCOMPATIBILITY (CONDITIONS AND MATERIALS TO AVOID): Material is stable when properly handled. Reacts with acids, oxidizing agents and with heat to form toxic sulfur dioxide (SO<sub>2</sub>) gas. Avoid sources of heat.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposes with heat or oxidizing agents to release toxic SO<sub>2</sub> gas.

**SECTION 6 -- HEALTH HAZARD DATA**

**PRIMARY ROUTES OF ENTRY:** Inhalation, ingestion, direct contact

**HEALTH EFFECTS (ACUTE AND CHRONIC):**

**INHALATION:** Inhalation will irritate and may damage upper respiratory tract and lungs.

**INGESTION:** May irritate gastrointestinal tract. Concentrated solutions may cause burns to the digestive tract.

**DIRECT CONTACT:** Contact with liquid, mist, or vapor can cause immediate irritation or mild corrosive burns to all human tissue.

**EYE CONTACT:** Contact with eyes may result in permanent damage.

**CARCINOGENS (NTP, IARC, OR OSHA):** No

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** None known.

**SECTION 7 -- FIRST AID**

**INHALATION:** Remove victim to fresh air. If not breathing, perform artificial respiration and get medical attention.

**INGESTION:** Drink copious quantities of water or milk. Do not induce vomiting. Get immediate medical attention.

**DIRECT CONTACT:** Wipe off excess. Flush immediately with water for at least 15 minutes while removing contaminated clothing. Get immediate medical attention. Wash clothing before re-use. Destroy contaminated shoes.

**DIRECT EYE CONTACT:** Flush immediately with water for at least 15 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye/lid tissue. Get immediate medical attention.

**SECTION 8 -- PRECAUTIONS FOR SAFE STORAGE, HANDLING AND USE**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Keep storage tanks and containers out of the sun and away from sources of heat and ignition to prevent decomposition and release of SO<sub>2</sub> gas. Containers should be kept tightly closed to prevent oxidation of the product. In cold weather, store product at temperatures above 50 °F to avoid crystallization. Do not strike containers or fittings with tools or hard objects. Emptied container retains vapor and product residue.

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Contain spill in order to prevent contamination of sewage system or waterway. If possible, neutralize on a dry basis with sodium carbonate or sodium bicarbonate; then flush with water in accordance with applicable regulations.

## ASTRO PRODUCT CODE: 15063

**WASTE DISPOSAL METHODS:** Dispose of spilled, neutralized, or waste product, contaminated soil and other contaminated materials in licensed landfill or treatment facility in accordance with all local, state and federal regulations.

### SECTION 9 -- EXPOSURE CONTROL INFORMATION

**VENTILATION:** Provide ventilation to control exposure levels below airborne exposure limits. Use local exhaust ventilation. Reference NFPA Standard 91 for design of exhaust systems.

**RESPIRATORY PROTECTION:** Use NIOSH/MSHA approved, full-face respirator with canister approved for sulfuric acid/sulfur trioxide vapor and mist. Consult respirator manufacturer to determine appropriate equipment. If concentrations are high or unknown, use self-contained breathing apparatus.

**PROTECTIVE GLOVES:** Wear impervious rubber gloves.

**EYE PROTECTION:** Wear splash proof chemical safety goggles. Eyewash fountains recommended in all storage and handling areas. Do not wear contact lenses.

**OTHER PROTECTIVE EQUIPMENT:** Wear protective clothing to prevent skin contact. Full face shield and rubber footwear should be used. Acid resistant hood and full body suit recommended. Safety shower recommended in all storage and handling areas.

**WORK/HYGIENIC PRACTICES:** Avoid breathing mist. Use gloves when handling.

**OTHER PRECAUTIONS:** None

### SECTION 10 -- REGULATORY INFORMATION

**USDOT:**

Proper shipping name: Bisulfites, aqueous solutions, n.o.s. (sodium bisulfite solution)

Hazard Class: 8

UN Number: UN2693

Packing Group: III

**SARA TITLE III 311/312 HAZARD CLASSIFICATIONS:**

ACUTE: Yes

CHRONIC: No

FIRE: No

REACTIVITY: No

PRESSURE: No

**ASTRO PRODUCT CODE: 15063**

**OTHER RATINGS:** (hazard index key: 4=severe, 3=serious, 2=moderate, 1=slight, 0=minimal)

**HMIS:** Health=1, Flammability=0, Reactivity=1, **CORROSIVE (COR)**

**NFPA:** Health=1, Flammability=0, Reactivity=1

**OTHER INFORMATION:**

**CERCLA RQ:** 5000 lbs.

**WHMIS:** Class E – Corrosive Material

**TOXICITY:**

Corrosive.

96 hr LC<sub>50</sub> (mosquito/fish): 240 ppm