

Martin Resources
Material Safety Data Sheet
Ammonium Bisulfite Solution

Dated: 01/31/98

Section I - Product Identification/Company

Product Name: Ammonium Bisulfite Solution

Chemical Family: Inorganic Salt Solution

Synonyms: Ammonium Hydrogen Sulfite, ABS, Sulfurous Acid, Monoammonium Salt

Formula: NH₄HSO₃

Manufacturer: Martin Resource Management
#1 Gulf States Road
P.O. Box 6567
Beaumont, TX 77704

Information: Phone: (409) 835-6172 ext 327
FAX: (409) 832-3607

Emergency Contact: (800) 424-9300 (Chemtrec)

Section II - Properties/Composition

Ingredients (% by weight):

Ammonium Bisulfite	CAS #: 10192-30-0	45 - 70 %
Water	CAS #: 7732-18-5	30 - 55 %

Appearance: Colorless to pale yellow liquid.

Odor: Slight sulfur dioxide odor.

Boiling Point: 220°F (104°C) - 231°F (111°C)

Vapor Pressure: Data not available

Vapor Density: Not determined

Solubility in Water: Complete

Specific Gravity: 1.253 - 1.380 (10.4 - 11.5 lbs/gal)

Freezing Point: Not determined

pH: 5.5

Volatile: Not applicable

**** See Section 8 for Exposure Guidelines****

Section III - Potential Hazards

NFPA: Health – 1 Flammability – 0 Reactivity - 1

Emergency Information:

Solutions are slightly acidic (pH 5.5)
Contact may cause eye irritation.
Repeated/prolonged skin contact may cause irritation.
Avoid inhalation of fumes in vapor space (sulfur dioxide).
Ingestion may irritate gastrointestinal tract.
Heating may cause ammonia and sulfur dioxide gas to evolve.

Potential Health Effects:

EYE: Contact with the eyes by product mist or solution will cause irritation and a burning sensation.
SKIN CONTACT: Prolonged or repeated contact with product mist or solution will cause skin irritation.
SKIN ABSORPTION: Absorption is unlikely to occur.
INGESTION: Ingestion of product solution will cause irritation of the gastrointestinal tract to include nausea, vomiting, and diarrhea.
INHALATION: Inhalation of product vapors (slight amount of sulfur dioxide) will cause nose, throat and lung irritation.
CHRONIC EFFECTS/CARCINOGENICITY: Not listed as a carcinogen by NTP, LARC or OSHA.

Section IV - First Aid Measures

EYES: Immediately flush with large quantities of water for 15 minutes. Hold eyelids apart during irrigation to insure thorough flushing of the entire area of the eye and lids. Obtain immediate medical attention.
SKIN: Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Obtain immediate medical attention.
INGESTION: If victim is conscious, immediately give 2 to 4 glasses of water. Induce vomiting by touching finger to back of throat. Obtain immediate medical attention.
INHALATION: Remove victim from contaminated atmosphere. If breathing is labored, administer oxygen. If breathing has ceased, clear airway and start mouth to mouth resuscitation. If heart has stopped beating, external heart massage should be applied. Obtain immediate medical attention.

Section V - Fire/Explosion Hazard Data

Flammable Properties: Flash Point - Not flammable
Method Used - NA
Flammable Limits: LFL - NA
UFL - NA
Extinguishing Media: As appropriate for combustibles involved in fire

Fire & Explosive Hazards: When heated, sulfur dioxide vapors will evolve. This gas is a severe respiratory hazard. Keep containers/storage vessels in fire area cooled with water spray.

Fire Fighting Equipment: Because of the possible presence of toxic gases and the corrosive nature of the product, wear self-contained breathing apparatus, pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section VI - Accidental Release Measures

Small Releases: Confine and absorb small releases on sand, earth or other inert absorbent. Dispose of in a chemical waste landfill.

Large Releases: Confine area to qualified personnel. Wear proper protective equipment. Shut off release if safe to do so. Dike spill area to prevent runoff into sewers, drains or surface waterways (potential aquatic toxicity). Spray product vapors with water spray or mist. Recover as much of the solution as possible. Treat remaining material as a small release (above).

Section VII - Handling and Storage

Handling: Handle in enclosed containers to avoid breathing product. Avoid contact with skin and eyes. Use in a well ventilated area. Wash thoroughly after handling.

Storage: Store in well ventilated areas in enclosed containers. Do not store combustibles in the area of storage vessels. Keep away from any sources of heat or flame. Store tote and smaller containers out of direct sunlight at moderated temperatures (see Section IX for materials of construction)

Section VII - Exposure Controls/Protection Information

RESPIRATORY PROTECTION: None generally required. If vapor exposure is possible, a NIOSH approved respirator for sulfur dioxide is required. Wear self-contained breathing apparatus, pressure demand, MSHA/NIOSH (approved or equivalent) if handling product under fire conditions.

SKIN PROTECTION: Neoprene rubber gloves, boots, and apron should be worn to prevent contact with the liquid. Wash contaminated clothing prior to reuse.

EYE PROTECTION: Chemical goggles and a full face shield. **DO NOT WEAR CONTACTLENSES.**

EXPOSURE GUIDELINES:

	OSHA		ACGIH	
	TWA	STEL	TLV	STEL
Sulfur dioxide	5 ppm	35 ppm	2 ppm	5 ppm (15 min.)

ENGINEERING CONTROLS: Use adequate exhaust ventilation to prevent inhalation of product vapors. Maintain eyewash/safety shower in areas where product is handled

Section IX. -Reactivity Data

STABILITY: This is a stable material.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Heating this product will evolve sulfur dioxide ammonium sulfate and sulfur.

INCOMPATIBILITY: Strong oxidizers such as nitrates, nitrites or chlorates. Acids will cause the release of sulfur dioxide, a highly toxic gas. Alkalies will accelerate the evolution of ammonia. Ammonium Bisulfite is not compatible with copper, zinc or their alloys -(i.e. bronze, brass, galvanized metals, etc.). These materials of construction should not be used in handling systems or storage containers for this product. (See Section VII -Storage)

Section X -Toxicological Data

ORAL: Data not available

DERMAL: Data not available

INHALATION: Data not available

CHRONIC/CARCINOGENICITY: No evidence available

TERATOLOGY: Data not available

REPRODUCTION: Data not available

MUTAGENCY: Data not available

Section XI -Ecological Data

Data not available

Section XII -Disposal

If released to the environment for other than its intended purpose, this product does not meet the definition of a hazardous waste under 40 CFR 261.

Section XIII- Transport Data

DOT Shipping Name:	Bisulfites, aqueous solutions, n.o.s.
DOT Hazard Class:	8
UN/NA Number:	UN2693
Packing Group:	III
DOT Placard:	Corrosive
DOT label (s):	Corrosive
IMO Shipping Name:	Bisulfites, aqueous solutions, n.o.s
RQ (Reportable Quantity):	5,000 lbs (100%) [1,068 gal (20%); 621 gal (70%)]
RR STCC Number:	28-191-14

Section XIV- Regulatory Data

OSHA: This product is listed as a hazardous material under criteria of the Federal OSHA Hazard Communication Standard, 29 CFR 1910. 1200.

SARA TITLE III: 1. EHS (Extremely Hazardous Substance) List: No

2. Section 311/312, (Tier, II) Categories:

Immediate (acute)	Yes
Fire	No
Sudden release	No
Reactivity	Yes
Delayed (chronic)	No

3. Section 313 (Toxic Release Reporting-Form R) Yes

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Concentration</u>
Ammonia	7664-41-7	3.4-.12%

4. TPQ (Threshold Planning Quantity): No

CERCLA/SUPERFUND: RQ (Reportable Quantity) Yes

TSCA (Toxic Substance Control Act) INVENTORY LIST: Yes

RCRA (Resource Conservation and Recovery Act) STATUS: No

WHMIS (Canada) HAZARD CLASSIFICATION: E,D2B

DOT HAZARDOUS MATERIAL: (See Section XIII) Yes

CAAI-HAZARDOUS AIR POLLUTANT (HAP) No

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