SAFETY DATA SHEET

AMMONIUM BISULFITE 70%
Product ID: SO009400
Revised: 01-20-2015
Replaces: 04-23-2014

1. IDENTIFICATION

Product Name:	AMMONIUM BISULFITE 70%
Synonyms:	Ammonium Hydrogen Sufite Solution; ABS; Sulfurous Acid, monoammonium salt
CAS Number:	MIXTURE
Recommended Use:	No data available.
Restrictions on Use:	No data available.

Hydrite Chemical Co.
300 N. Patrick Blvd.
Brookfield, WI 53008-0948
(262) 792-1450

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency #: (414) 277-1311
CHEMTREC Emergency #: (800) 424-9300

2. HAZARD(S) IDENTIFICATION

Signal Word:	Danger
GHS Classification:	Substance or mixture corrosive to metals Category 1 Skin Corrosion/Irritation Category 1C Serious Eye Damage/Eye Irritation Category 1
Hazard Statements:	May be corrosive to metals. Causes severe skin burns and eye damage.

Precautionary Statements:

Prevention:	Keep only in original container. Do not breathe dust, fume, gas, mist, vapors or spray. Wash thoroughly after handling. Wear gloves, eye and face protection and protective clothing.
Response:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Specific treatment (see First Aid on SDS or on this label). Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.
Storage:	Store in a secure manner. Store in corrosive resistant container with a resistant inner liner.
Disposal:	Dispose of in accordance with local, regional and international regulations.

Hazards Not Otherwise Classified: Sulfur Dioxide given off by this product has been shown to cause

breathing difficulties in asthmatics. May cause severe allergic reaction in some asthmatics and sulfite sensitive individuals.

Percentage of Components with Unknown Acute Toxicity:

Oral:	70.0 %
Dermal:	70.0 %
Inhalation Vapor:	70.0 %
Inhalation Dust/Mist:	70.0 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	% by Wt.
Ammonium Bisulfite	10192-30-0	70 %

4. FIRST-AID MEASURES

Eye Contact: If in eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention.

Skin Contact: If on skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned.

Inhalation: If inhaled: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

Ingestion: If swallowed: If fully conscious, drink a quart of water. DO NOT induce vomiting. CALL A PHYSICIAN IMMEDIATELY. If unconscious or in convulsions, take immediately to a hospital or a physician. NEVER induce vomiting or give anything by mouth to an unconscious victim. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Note to Physicians:
Treat symptomatically. Note potential for anaphylactic shock with allergic individuals.

Most Important Symptoms/Effects:

Eye Contact: CORROSIVE-Causes severe irritation and burns. May cause: permanent eye damage.

Skin Contact: CORROSIVE-Causes severe irritation and burns. Contact may cause: redness. blistering. pain. tissue destruction.

Skin Absorption: No absorption hazard expected under normal use.

Inhalation: Vapors or mists may irritate: nose. throat. respiratory tract. May cause: coughing. difficulty breathing. tightness of the chest. Extreme exposures may cause: severe irritation. pulmonary edema.

Ingestion: May be corrosive to the gastrointestinal tract. Severe irritation and burns may result. May irritate or burn: mouth. throat. digestive tract. May cause: vomiting. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause pulmonary edema.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Not flammable. Use extinguishing agents appropriate for surrounding fire.

Fire Fighting Methods: Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers. Run-off from fire control may cause pollution.

Fire and Explosion Hazards: None known.

Hazardous Combustion Products: Toxic vapors. Sulfur oxides. Ammonia. Sulfur Dioxide gas will be released at a rate increasing with temperature.

6. ACCIDENTAL RELEASE MEASURES

Spill Clean-Up Procedures: CORROSIVE MATERIAL. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit. Shut off source of leak if safe to do so. Contain spill, place into drums for proper disposal. Soak up residue with inert absorbent material. Place in non-leaking containers for immediate disposal. Flush remaining area with water to remove trace residue and dispose of properly. Prevent entry into basements, low areas, or confined areas. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death.

Storage: CORROSIVE MATERIAL. Store in a cool, well ventilated area, out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Prolonged exposure to the atmosphere will slowly oxidize this product, releasing sulfur dioxide gas. Do not freeze. Store at or above 50 F. Relieve pressure in drums weekly. See Section 10 for incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

Component	Limits
No components found.	

ACGIH Exposure Guidelines:

Component	Limits
No components found.	

Note:
Sulfur Dioxide gas may be released. The Exposure Limits for Sulfur Dioxide are: 5 ppm-TWA (OSHA); 2 ppm-TWA, 5 ppm-STEL (ACGIH)(Vacated 1989 OSHA PELs).

Engineering Controls: Local exhaust ventilation, process enclosures, or other engineering controls are imperative when handling or using this product to avoid overexposure. Avoid creating dust or mist. Maintain adequate ventilation. Do not use in closed or confined spaces. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

Eye/Face Protection: Wear chemical safety goggles and a full face shield while handling this product. Do not wear contact lenses.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Impervious. Chemical-resistant.

Respiratory Protection: Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If exposure limits are exceeded, wear: NIOSH-Approved respirator for dusts, mists, and/or SO2 vapors as conditions indicate. NIOSH-Approved Supplied Air Respirator (SAR). NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Rubber apron. Chemical safety shoes. Rubber boots. Protective clothing.

General Hygiene Conditions: Wash with soap and water before meal times and at the end of each work shift. Food, beverages, and tobacco products should not be carried, stored or consumed where this material is in use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.
Color: Clear. Pale yellow.
Odor: Sulfur dioxide odor.
Odor Threshold: N.D.
pH: 5.00 (as is)
Freezing Point (deg. F): 5
Melting Point (deg. F): N.D.
Initial Boiling Point or Boiling Range: ~ 220 - 231 °F
Flash Point: N.A.
Flash Point Method: N.A.
Evaporation Rate (nBuAc = 1): N.D.
Flammability (solid, gas): N.D.
Lower Explosion Limit: N.A.
Upper Explosion Limit: N.A.
Vapor Pressure (mm Hg): N.D.
Vapor Density (air=1): N.D.
Specific Gravity or Relative Density: 1.393 @ 25C
Solubility in Water: Complete
Partition Coefficient (n-octanol/water): N.D.
Autoignition Temperature: No Data
Decomposition Temperature: N.D.
Viscosity: N.D.
% Volatile (wt%): N.D.
VOC (wt%): N.D.
VOC (lbs/gal): N.D.
Fire Point: N.D.

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions. Both acidification and heating accelerate the release of Sulfur dioxide fumes. Alkaline materials will accelerate the evolution of ammonia.

Conditions to Avoid: Avoid heat, sparks or open flames. Avoid elevated temperatures.

Incompatible Materials: Acids. Oxidizing agents. Alkalies. Copper, zinc or their alloys (i.e. bronze, brass, galvanized metals, etc.). Oils. Combustible materials. Hypochlorites. Water-reactive materials. Aluminum. Lead diacetate. Mercury chloride. Steel. Corrosive to some metals.

Hazardous Decomposition Products: Toxic vapors. Sulfur dioxide gas. Ammonia.

11. TOXICOLOGICAL INFORMATION

Component	Oral LD50	Dermal LD50	Inhalation LC50
No components found or no data available for product.			

Routes of Exposure: Eyes. Skin. Inhalation. Ingestion.

Eye Contact: CORROSIVE-Causes severe irritation and burns. May cause: permanent eye damage.

Skin Contact: CORROSIVE-Causes severe irritation and burns. Contact may cause: redness. blistering. pain. tissue destruction.

Skin Absorption: No absorption hazard expected under normal use.

Inhalation: Vapors or mists may irritate: nose. throat. respiratory tract. May cause: coughing. difficulty breathing. tightness of the chest. Extreme exposures may cause: severe irritation. pulmonary edema.

Ingestion: May be corrosive to the gastrointestinal tract. Severe irritation and burns may result. May irritate or burn: mouth. throat. digestive tract. May cause: vomiting. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause pulmonary edema.

Medical Conditions Aggravated by Exposure to Product: Asthma.

Other: SULFUR DIOXIDE GIVEN OFF BY THIS PRODUCT HAS BEEN SHOWN TO CAUSE BREATHING DIFFICULTIES IN ASTHMATICS. May cause severe allergic reaction in some asthmatics and sulfite sensitive individuals.

Cancer Information:
This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: This product is particularly toxic in the aquatic environment because of its ammonium ion content that can convert to free ammonia.

Chemical Fate Information: The sulfite ion component will result in elevated chemical oxygen demand and pH reduction on oxidation of sulfate.

13. DISPOSAL CONSIDERATIONS

Hazardous Waste Number: N.A.
Disposal Method: Dispose of in accordance with all local, state and federal regulations. The information offered here is for the product as shipped. Use and/or alteration to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method. Since emptied containers retain product residue, follow label warnings even after container is emptied. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Do NOT dump into any sewers, on the ground, or into any body of water.

14. TRANSPORT INFORMATION

DOT (Department of Transportation):

Identification Number:	UN2693
Proper Shipping Name:	BISULFITES, AQUEOUS SOLUTIONS, N.O.S. (AMMONIUM BISULFITE)
Hazard Class:	8
Packing Group:	III
Label Required:	CORROSIVE
Reportable Quantity (RQ):	5000# (Ammonium Bisulfite)

15. REGULATORY INFORMATION

TSCA Inventory Status: This product or all components of this product are listed on the EPA/TSCA Inventory of Chemical Substances.

SARA Title III Section 311/312 Category Hazards:

Immediate (Acute)	Delayed (Chronic)	Fire Hazard	Pressure Release	Reactive
Yes	No	No	No	No

Regulated Components: Component	CAS Number	CERCLA RQ	SARA EHS	SARA 313	U.S. HAP	WI HAP	Prop 65
Ammonium Bisulfite	10192-30-0	Yes	No	Yes	No	No	No

***Prop 65 - May Contain the Following Trace Components:**
Sulfur Dioxide.

Note: * This substance is reportable under Sara Title III, Section 313 as ammonia from a water disassociable ammonium salt. Total ammonia (cas# 7664-41-7) concentration is 13.3-14.2%.

16. OTHER INFORMATION

Hazard Rating System
Health: 3
Flammability: 0
Reactivity: 0
* = Chronic Health Hazard

NFPA Rating System
Health: 3
Flammability: 0
Reactivity: 0
Special Hazard: None

MSDS Abbreviations
N.A. = Not Applicable
N.D. = Not Determined
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
C = Ceiling Limit
N.E./Not Estab. = Not Established

MSDS Prepared by: NAO

Reason for Revision: Change(s) made in Section 7.

Revised: 01-20-2015
Replaces: 04-23-2014

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.