

# AMMONIUM BISULFITE

ASU

CAUTIONARY RESPONSE INFORMATION		4. FIRE HAZARDS	7. SHIPPING INFORMATION								
Common Synonyms Ammonium hydrogen sulfite Ammonium hydrosulfite Ammonium monosulfite	Liquid solution with water Colorless to yellow Sinks and mixes with water.	<p>4.1 Flash Point: Not flammable</p> <p>4.2 Flammable Limits in Air: Not flammable</p> <p>4.3 Fire Extinguishing Agents: Not pertinent</p> <p>4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent</p> <p>4.5 Special Hazards of Combustion Products: None</p> <p>4.6 Behavior in Fire: Not pertinent</p> <p>4.7 Auto Ignition Temperature: Not pertinent</p> <p>4.8 Electrical Hazards: Not pertinent</p> <p>4.9 Burning Rate: Not pertinent</p> <p>4.10 Adiabatic Flame Temperature: Not pertinent</p> <p>4.11 Stoichiometric Air to Fuel Ratio: Not pertinent</p> <p>4.12 Flame Temperature: Not pertinent</p> <p>4.13 Combustion Molar Ratio (Reactant to Product): Currently not available</p> <p>4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed</p>	<p>7.1 Grades of Purity: Currently not available</p> <p>7.2 Storage Temperature: Currently not available</p> <p>7.3 Inert Atmosphere: Currently not available</p> <p>7.4 Venting: Currently not available</p> <p>7.5 IMO Pollution Category: Currently not available</p> <p>7.6 Ship Type: Currently not available</p> <p>7.7 Barge Hull Type: Currently not available</p>								
Fire	Wear face shield or safety glasses and rubber gloves. Avoid inhalation. Stop discharge if possible. Isolate and remove discharged material. Notify local health and pollution control agencies. Protect water intakes.		8. HAZARD CLASSIFICATIONS								
Exposure	CALL FOR MEDICAL AID. Exposure data not available. Flush affected areas with plenty of water.		<p>8.1 49 CFR Category: Corrosive material</p> <p>8.2 49 CFR Class: 8</p> <p>8.3 49 CFR Package Group: III</p> <p>8.4 Marine Pollutant: No</p> <p>8.5 NFPA Hazard Classification:</p> <table> <tr> <td>Category</td> <td>Classification</td> </tr> <tr> <td>Health Hazard (Blue).....</td> <td>1</td> </tr> <tr> <td>Flammability (Red).....</td> <td>0</td> </tr> <tr> <td>Instability (Yellow).....</td> <td>0</td> </tr> </table>	Category	Classification	Health Hazard (Blue).....	1	Flammability (Red).....	0	Instability (Yellow).....	0
Category	Classification										
Health Hazard (Blue).....	1										
Flammability (Red).....	0										
Instability (Yellow).....	0										
Water Pollution	Effects of low concentrations on aquatic life are unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.		<p>8.6 EPA Reportable Quantity: 5000</p> <p>8.7 EPA Pollution Category: D</p> <p>8.8 RCRA Waste Number: Not listed</p> <p>8.9 EPA FWCNA List: Yes</p>								
1. CORRECTIVE RESPONSE ACTIONS Dilute and disperse Stop discharge	2. CHEMICAL DESIGNATIONS 2.1 CG Compatibility Group: Not listed 2.2 Formula: NH <sub>4</sub> HSO <sub>3</sub> 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: 2693 2.5 CAS Registry No.: 10192-30-0 2.6 NAERG Guide No.: 154 2.7 Standard Industrial Trade Classification: 51481	5. CHEMICAL REACTIVITY 5.1 Reactivity with Water: No reaction 5.2 Reactivity with Common Materials: No reaction 5.3 Stability During Transport: Stable 5.4 Neutralizing Agents for Acids and Caustics: Not pertinent 5.5 Polymerization: Not pertinent 5.6 Inhibitor of Polymerization: Not pertinent	9. PHYSICAL & CHEMICAL PROPERTIES 9.1 Physical State at 15° C and 1 atm: Only sold as aqueous solution. 9.2 Molecular Weight: 99.10 9.3 Boiling Point at 1 atm: Sublimates at 150°C 9.4 Freezing Point: Not pertinent 9.5 Critical Temperature: Not pertinent 9.6 Critical Pressure: Not pertinent 9.7 Specific Gravity: 2.03 at room temperature (solid) 1.40 (72% aqueous solution) 9.8 Liquid Surface Tension: Currently not available 9.9 Liquid Water Interfacial Tension: Currently not available 9.10 Vapor (Gas) Specific Gravity: Not pertinent 9.11 Ratio of Specific Heats of Vapor (Gas): Currently not available 9.12 Latent Heat of Vaporization: Currently not available 9.13 Heat of Combustion: Currently not available 9.14 Heat of Decomposition: Currently not available 9.15 Heat of Solution: Endothermic 43.6 Btu/lb = 24.2 cal/g = 1.01 X 10 <sup>5</sup> J/kg (For dilute solution 1 mole/l/0.300 moles H <sub>2</sub> O which is equal to 1.833 lb/volume lb of water) 9.16 Heat of Polymerization: Not pertinent 9.17 Heat of Fusion: Currently not available 9.18 Limiting Value: Currently not available 9.19 Reid Vapor Pressure: Currently not available								
3.1 Personal Protective Equipment: Rubber gloves, face shields or safety glasses, normal protective gear. 3.2 Symptoms Following Exposure: Not pertinent 3.3 Treatment of Exposure: Call a physician. EYES: Flush with water. SKIN: Flush exposed area with water. 3.4 TLV-TWA: Not listed. 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Currently not available 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Currently not available 3.10 Vapor (Gas) Irritancy Characteristics: Currently not available 3.11 Liquid or Solid Characteristics: Currently not available 3.12 Odor Threshold: Currently not available 3.13 IDLH Value: Not listed. 3.14 OSHA PEL-TWA: Not listed. 3.15 OSHA PEL-STEL: Not listed. 3.16 OSHA PEL-Ceiling: Not listed. 3.17 EPA AEGL: Not listed	3. HEALTH HAZARDS 6. WATER POLLUTION 6.1 Aquatic Toxicity: Currently not available 6.2 Waterfowl Toxicity: Currently not available 6.3 Biological Oxygen Demand (BOD): Currently not available 6.4 Food Chain Concentration Potential: None 6.5 GESAMP Hazard Profile: Bioaccumulation: 0 Damage to living resources: 1 Human Oral hazard: 1 Human Contact hazard: 0 Reduction of amenities: 0	NOTES									

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	NOT PERTINENT		NOT PERTINENT		NOT PERTINENT		NOT PERTINENT

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
50	267.000		NOT		NOT		NOT
55	286.610						
60	306.221						
65	325.832						
70	345.443						
75	365.056		PERTINENT		PERTINENT		PERTINENT
80	384.667						
85	404.278						
90	423.889						
95	443.500		NOT		NOT		NOT
100	463.110						
105	482.721						
110	502.332						
115	521.943		NOT		NOT		NOT
120	541.556						
125	561.167						
130	580.778						
135	600.389						
140	620.000						