

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER: OS-50 (Knockout 50)
PRODUCT NAME: Ammonium Bisulfite Solution

RECOMMENDED USE: Oxygen scavenger in industrial applications

SUPPLIER: **Deep South Chemical, Inc.**
229 Millstone Road
Broussard, LA 70518
(337) 837-9931

24-HOUR EMERGENCY TELEPHONE: 1-800-424-9300 (Chemtrec)

2. HAZARDS IDENTIFICATION

CLASSIFICATION: Skin corrosion 1C
Eye damage 1

SIGNAL WORD: Danger

HAZARD STATEMENTS: Causes severe skin burns and eye damage
Causes serious eye damage

SYMBOLS:

PRECAUTIONARY STATEMENTS: Do not breathe fumes, vapors, mist, or spray.
Wash thoroughly after handling.
Wear protective gloves, splash apron, safety glasses or chemical safety goggles.
In case of inadequate ventilation wear respiratory protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse.
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 physician.
Store locked up in well ventilated area, out of direct sunlight at moderate temperatures.
Dispose of contents and container in accordance with local, state, and federal regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME:	CAS No.:	WEIGHT %:
Ammonium Bisulfite	10192-30-0	45 - 72
Water	7732-18-5	28 - 55

4. FIRST-AID MEASURES

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). If breathing has stopped, trained personnel should begin rescue breathing or, if the heart has stopped, immediately, start cardiopulmonary resuscitation (CPR) or automated external defibrillator.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if present, and easy to do. Continue rinsing. Obtain medical attention if irritation persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Get immediate medical attention.

Note to physician: No specific treatment. Treat according to symptoms present.

5. FIREFIGHTING MEASURES

Extinguishing Media:

Suitable Extinguishing Media: Use appropriate extinguishing media for the surrounding fire. The product is not flammable.

Unsuitable Extinguishing Media: Not applicable.

Specific Hazards:

Heating this chemical will evolve sulfur dioxide, a severe respiratory irritant.

Toxic fumes of nitrogen oxides, sulfur oxides and ammonia are released during fire.

Product is corrosive to skin and eyes.

Special Protective Equipment and Precautions for Fire-Fighters:

Fire-fighters should wear full fire-fighting gear including self-contained breathing apparatus.

Keep containers cool using water spray or fog.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Avoid contact with skin, eyes and clothing. Do NOT breathe vapors, mist or spray. Provide adequate ventilation. Use personal protective equipment (PPE) specified in Section 8.

Environmental Precautions:

Prevent spilled material from entering sewers, storm drains and public waters.

Methods for Containment:

Stop spill/release if it can be done safely. Contain spills with dikes of sand, earth or other absorbents to prevent migration and entry into the environment and waterways. Local authorities should be advised if significant spillages cannot be contained.

Methods for Cleanup:

Clean up spills immediately. Keep area well ventilated. Spray product vapors with water spray or mist. Flush area with water. Do NOT wash into sewer. Recover as much of the solution as possible by vacuum. Absorb remaining solution with inert, non-combustible material. Place in suitable salvage containers. Dispose of waste in accordance with local, state and federal regulations in a chemical waste landfill.

7. HANDLING AND STORAGE

Handling Precautions:

Always wear recommended personal protection equipment. Do not get in eyes, on skin or clothing. Do not breathe mists or vapors. Use only with adequate ventilation or wear respiratory protection. Eating, drinking and smoking in work areas is prohibited.

Hygienic Work Practices:

Use good personal hygiene practices. Wash hands and skin thoroughly after handling. Promptly remove contaminated clothing and wash before reuse. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Storage Precautions:

Keep containers tightly closed and properly labeled. Store in cool, dry, well-ventilated area away from heat, direct sunlight, strong oxidizers and any incompatibles. Incompatible materials – strong acids, strong bases strong oxidizers. Keep container closed when not in use. Keep in original container. Store containers in upright position. Since emptied containers retain product residue, follow hazard precautions even when empty.

Product is not compatible with copper, zinc and their alloys (bronze, brass, galvanized metals, etc.). These materials of construction should not be used in handling systems or storage containers for this product.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

Appropriate Engineering Controls:

Ensure adequate ventilation, especially in confined areas.
Emergency eye wash and safety showers should be available in the immediate vicinity of any potential exposure.

Personal Protective Equipment:

Eye Protection – Wear safety glasses or chemical safety goggles.
Skin Protection – Wear chemical resistant gloves and splash apron.
Respiratory Protection – If ventilation is inadequate, use NIOSH-approved air-purifying or supplied-air respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear to pale yellow liquid
Odor:	Slight sulfur dioxide odor
Odor Threshold:	Not available
pH:	4.5 to 5.5
Melting Point/Freezing Point:	Not available
Boiling Point:	220° – 231° F
Flash Point:	Not available
Evaporation Rate:	Not available
Flammability:	Not available
Upper Flammability Limit:	Not available
Lower Flammability Limit:	Not available
Vapor Pressure:	Not available
Vapor Density:	Not available

Relative Density:	1.275 - 1.410 Specific Gravity
Solubility:	Complete in water
Partition Coefficient:	Not available
Auto-Ignition Temperature:	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available

10. STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Stable at standard temperature and pressure.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Sources of ignition. Incompatible materials.

Incompatible Materials: Reacts violently with oxidizing agents to form flammable and reactive gases. Reacts with strong acids to form toxic gases. Not compatible with copper, zinc or their alloys. Alkalies will accelerate the evolution of ammonia.

Hazardous Decomposition Products: Sulfur dioxide (a severe respiratory hazard), ammonium sulfate, sulfur, nitrogen oxides, sulfur oxides and ammonia.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure:

Inhalation: Respiratory tract irritation. If inhaled, product vapors (slight amount of sulfur dioxide) can cause nose, throat and lung irritation. Higher exposures can cause pulmonary edema, a build-up of fluids in the lungs, a medical emergency, with severe shortness of breath.

Ingestion: May cause burns or irritation of the linings of the mouth, throat and gastrointestinal tract.

Skin Contact: May cause severe irritation or burns.

Eye Contact: May cause severe irritation or burns. Prolonged exposure may cause eye damage.

Acute Toxicity: Not classified

LD50 and LC50: Not data available

Respiratory or Skin Sensitization: No data available

Carcinogenicity: No data available

Reproductive Toxicity: No data available

Germ Cell Mutagenicity: No data available

Specific Target Organ Toxicity – Single Exposure: No data available

Specific Target Organ Toxicity – Repeated Exposure: No data available

Aspiration Hazard: Not classified

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not classified

Persistence and Degradability: Not established

Bioaccumulative Potential: Not established

Mobility in Soil: No data available

Other Adverse Effects: No data available

13. DISPOSAL CONSIDERATIONS

Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty containers retain product residue which may exhibit hazards of material. Do not use for other purposes. Return containers to reclamation centers for proper cleaning and reuse.

14. TRANSPORTATION INFORMATION

In accordance with ICAO/IATA/DOT/TDG

UN/NA No.:	UN2693
DOT PROPER SHIPPING NAME:	Bisulfites, aqueous solutions, n.o.s. (Ammonium Bisulfite)
HAZARD LABEL:	CORROSIVE 8
CLASS:	Class 8 - Corrosive liquid 49 CFR 173.136
PACKING GROUP (DOT):	III – Minor Danger
ERG #:	154
Reportable Quantity:	5000 lbs. (Ammonium Bisulfite 100%) [940 gallons of Knockout 50]
DOT Special Provisions (49 CFR 172.102):	IB3 – Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2)
DOT Packaging Exceptions:	49 CFR 173.154
DOT Packaging Non Bulk:	49 CFR 173.203
DOT Packaging Bulk:	49 CFR 173.241

15. REGULATORY INFORMATION

OSHA: This product is listed as a hazardous material under the criteria of Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200. We request that you make all information in the Material Safety Data Sheet available to your employees.

TSCA: This material is on the TSCA Inventory.

CERCLA: Reportable Quantity – 5,000 lbs. (Ammonium Bisulfite 100%) [940 gallon of Knockout 50]

Spills/release resulting in loss above RQ requires immediate notification to the National Response Center (800-424-8802).

SARA TITLE III:

Extremely Hazardous Substance (EHS):	No
Section 312 (Tier II) Ratings:	Immediate (acute) health hazard
Section 313:	Yes, Ammonia 4 – 12%

RCRA: No

Canada WHMIS: Class E, D2B – Corrosive material
Listed in DSL, record no 9408

16. OTHER INFORMATION

CURRENT ISSUE DATE: May 15, 2015

Updated to comply with new GHS standard and SDS requirements of OSHA Hazard Communication Standard 29 CFR 1910.1200.

Deep South Chemical, Inc. believes the information contained in this material safety data sheet is accurate based on the information supplied by reputable suppliers of our raw materials. We cannot make any assertions as to its reliability or completeness; therefore, the user may rely on it only at user's risk. We have made no effort to censor or conceal deleterious aspects of this product. Since we cannot anticipate or control the conditions under which this information and product may be used, we make no guarantee that the precautions we have suggested will be adequate for all individuals and/or situations. It is the obligation of each user of this product to comply with the requirements of all applicable laws regarding use and disposal of this product. No warranty, either expressed or implied, or liability of any nature with respect to this product or to the data herein is made or incurred hereunder.