Safety Data Sheet

1. Product Identifier and Company Identification

Product name : **Liquid Ammonium Sulfate 10-40%**
HBCC SDS number :
Synonym : Ammonium Sulfate Solution
Product use and Restrictions : Refer to label or call
Manufacturer Contact Address :

Corporate Headquarters
Hill Brothers Chemical Company
3000 E Birch St #108
Brea, CA 92821
714-998-8800
800-821-7234 – Office

Corporate Safety & Compliance
Hill Brothers Chemical Company
7121 West Bell Road, Suite 250
Glendale, Arizona 85308
623-535-9955 - Office
623-535-9944 - Fax

Emergency telephone Number (Chemtrec) : 800-424-9300
Website : https://hillbrothers.com

2. Hazard Identification

Classification : None
Signal Word : None
Pictogram(s) : None
Hazard Statements : None

Precautionary Statements

Response : None
Prevention : None
Storage : None
Disposal : None

3. Composition/Information on Ingredients

CAS Number	Ingredient Name	Weight %
7783-20	Ammonium Sulfate	10-40%
7732-18-5	Water	Balance

4. First Aid Measures

Ingestion : Rinse mouth. Get medical attention if symptoms occur.

Inhalation : Move to fresh air. Get medical attention if symptoms develop or persist.

Skin : May cause mild skin irritation. Remove affected clothing and wash all exposed skin area with mild soap and water. Get medical attention if symptoms develop or persist.

Eyes : May cause mild eye irritation. Rinse immediately with plenty of water. Get medical attention if symptoms develop or persist.

Effects of Overexposure : N/A

Summary of Acute Health Hazards : Not expected to present a significant hazard under anticipated conditions for normal use.

Ingestion : N/A

Inhalation : N/A

Skin : N/A

Eyes : Direct contact with eyes may cause temporary irritation.

Note to Physicians : N/A

Summary of Chronic Health : Not expected to present a significant hazard under anticipated conditions for normal use.

5. Fire Fighting Measures

Extinguishing : Foam. Dry powder. Carbon dioxide. Water spray. Sand. Do not use heavy water stream.

Special Exposure Hazards : N/A

Special Protective Equipment for Firefighters : Do not enter fire area without proper protective equipment, including respiratory protection.

Fire Fighting Procedures : Use water spray or fog for cooling exposed containers. Use standard fire fighting procedures and consider the hazards of other involved materials.

NFPA Rating : Health - 1
Flammability - 0
Instability – 0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

Uniform Fire Code Rating : N/A

6. Accidental Release Measures

Personal Precautions & Emergency Procedures : Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods of Containment And Clean-Up : Wastewater from contaminant suppression, cleaning of protective clothing/ equipment, or contaminated sites should be contained and evaluated for subject chemical or decomposition product concentrations. Concentrations shall be lower than applicable environmental discharge or disposal criteria. Alternatively, pretreatment and/or discharge to a permitted wastewater treatment facility is acceptable only after review by the governing authority and assurance that "pass through" violations will not occur. Due consideration shall be given to remediation worker exposure (inhalation, dermal and ingestion) as well as fate during treatment, transfer, and disposal. If it is not practicable to manage the chemical in this fashion, it must be evaluated in accordance with EPA 40 CFR Part 261, specifically Subpart B, to determine the appropriate local, state, and federal requirements for disposal.

Environmental Precautions : Void release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

7. Handling and Storage

Safe Handling : Wear appropriate PPE. Observe good industrial hygiene practices.

Storage : Store in original, tightly closed container. Keep container closed when not in use.

Work/Hygienic Practices : Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work.

Ventilation : Provide good ventilation in process area to prevent formation of vapor.

Incompatible Products : Strong bases. Strong acids.

Incompatible Materials : Sources of ignition. Direct sunlight.

8. Exposure Controls/Personal Protective Equipment

Occupational Exposure Limits :

Chemical Name: Liquid Ammonium Sulfate				
Exposure Limits (TWAs) in Air				
CAS Number	IDLH	ACGIH TLV	OSHA PEL	STEL
7783-20-2	-	-	-	-

Protective Equipment : Avoid all unnecessary exposure. Wear protective gloves.

Eye Protection : Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin Protection : Handle with gloves.

Respiratory Protection : Respiratory protection is not required. If desired, use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. Physical and Chemical Properties

Appearance: A clear, colorless liquid	**Odor:** Odorless
Odor Threshold: N/A	**pH:** 2.7-5
Melting Point/Freezing Point: N/A	**Initial Boiling Point/Range:** 221°F
Flash Point: N/A	**Evaporation Rate (BuAc=1):** N/A
Flammability: N/A	**Lower/Upper Explosive Limit:** N/A
Vapor Pressure (mmHg): N/A	**Vapor Density (Air=1):** N/A
Density: 8.83- 10.25 Lbs/US. Gal	**Solubility in Water:** Complete
Partition Coefficient: N/A	**Autoignition Temperature:** N/A
Decomposition Temperature: N/A	**Viscosity:** N/A
% Volatiles: 60-90% estimated	**Specific Gravity (Water=1):** 1.06-1.23
Molecular Weight: N/A	**VOC:** N/A

10. Stability and Reactivity

Reactivity : Stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability : Material is stable under normal conditions.

Possibility of Hazardous Reactions or Polymerizations : No dangerous reaction known under conditions of normal use.

Conditions to Avoid : Heat. Open flame. Direct sunlight. Extremely high or low temperatures.

Incompatible Materials : Oxidizing agents. Metals. Strong acids. Strong bases.

Hazardous Decomposition Products : Fume. Carbon Monoxide. Carbon Dioxide.

11. Toxicological Information

Acute Toxicity : Not classified

Routes of Exposure

Ingestion : Expected to be a low ingestion hazard
Inhalation : No adverse effects due to inhalation are expected.
Skin : No adverse effects due to skin contact are expected.
Eyes : Direct contact with eyes may cause temporary irritation.

Symptoms related to Physical, Chemical & Toxicological : May cause abdominal pain, nausea, and or vomiting. Product mists may cause irritation to the respiratory tract. Prolonged exposure may cause irritation or burns if the product is wet or in the presence of perspiration. Prolonged exposure may cause irritation and inflammation of the eye.

Characteristics Numerical Measures of Toxicity : Ammonium Sulfate
(dermal, rat): >2000 mg/kg
LD50 (oral, rat): 640-4250 mg/kg
ATE US (oral): 640.00000000 mg/kg body weight

Ammonium Sulfate (7783-20-2)
LD50 (dermal, rat): >2000 mg/kg
LD50 (oral, rat): 2840 mg/kg (Rat)
ATE US (oral): 2840.00000000 mg/kg body weight

Chronic Toxicity : Not classified

Carcinogenicity : Not classified

Product Name: Liquid Ammonium Sulfate					
ACGIH	**IARC**	**EPA**	**NIOSH**	**NTP**	**OSHA**
-	-	-	-	-	-

Target Organs : May cause respiratory irritation (single exposure).

12. Ecological Information

Ecotoxicity : Ammonium Sulfate (7783-20-2):
LC50 fish 1: 126mg/l (96 h; Poecilia reticulate)
EC50 Daphnia 1: 202 mg/l (96 h; Daphnia magna)
LC50 fish 2: 250-480 mg/l (96 h; Brachydanio rerio)
EC50 Daphnia 2: 433 mg/l (50 h; Daphnia magna)
TLM fish 1: 1290 ppm (96 h; Gambusia affinis)

Persistence and Degradability : Ammonium Sulfate Solution 40%: Not established.

Ammonium Sulfate (7783-20-2): Biodegradability in water: no data available. Not established.

Water (7732-18-5): Not established.

Bioaccumulative Potential : Ammonium Sulfate Solution 40%: Not established.

Ammonium Sulfate (7783-20-2):
Log Pow: -5.1
Bioaccumulation: Not applicable. Not established.

Water (7732-18-5): Not established.

Mobility in Soil : No additional information available.

13. Disposal Considerations

Disposal Methods : Recycle any unused portion of the material for its approved use. Ultimate disposal of the chemical must consider: the material's impact on air quality; potential migration in air, soil, or water; effects on animal, aquatic, and plant life; and conformance with environmental and public health regulations. Product: Offer surplus and non-recyclable solutions to a licensed disposal company.

14. Transport Information

This product is not regulated as a hazardous material, substance or dangerous good.

15. Regulatory Information

SARA 302 Extremely Hazardous Substances (EHS) : No chemical in this product is listed as an Extremely Hazardous Substance (EHS) under Section 302 of EPCRA.

SARA 304 Extremely Hazardous Substances (EHS) Release Notification : No chemical in this product is listed as an Extremely Hazardous Substance (EHS) which, if released into the environment in quantities at or above the substance's Reportable Quantity (RQ), would require reporting to the SERC and LEPC under Section 304 of EPCRA.

SARA 311/312 Hazards :

SARA 311/312 Hazards				
Acute	Chronic	Flammability	Pressure	Reactivity
No	No	No	No	No

SARA 313 Reportable Chemicals : No chemical in this product is subject to annual emissions, transfers, or waste management reporting under the Community-Right-to-Know provisions of EPCRA Section 313, also known as the Toxics Release Inventory (TRI) Report or Form R.

CERCLA Hazardous Substances : No chemical in this product is listed as a CERCLA hazardous substance subject to the National Response Center (NRC) release reporting requirements.

Clean Air Act (CAA) Section 112(r) Air Pollutants : No chemical in this product is listed as an air pollutant under the U.S. Clean Air Act, Section 112(r) (40 CFR 61).

California Prop 65 Chemicals : This product does not contain any chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

Hazard Label Warning : None

TSCA (Toxic Substances Control Act) : All chemical substances in this product are listed on the U.S. TSCA Inventory List except for:
Water (7732-18-5) 60%

ACRONYMS:

CAS # – Chemical Abstract Services Registry Number
CFR – Code of Federal Regulations
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
EPCRA – Emergency Planning and Community Right-to-Know Act
LEPC – Local Emergency Planning Committee
SERC – State Emergency Response Commission

Maximum use level under NSF/ANSI Standard 60

Liquid Ammonium Sulfate 40%	Maximum use	60 mg/L
Ammonium Sulfate 40% Solution	Maximum use	60 mg/L

16. Other Information

Revision Date : 05/05/2021
Supersedes : 11/02/2017
First Issue : 11/04/2016

Chemical Family/Type : Inorganic Salt

Section(s) changed since last revision : Sections 1,3,4,5,6,8,9,11,12,13,16

IMPORTANT! Read this SDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure. This SDS has been prepared in accordance with the Globally Harmonized System of Chemical and Labeling of Chemicals (GHS) Fifth Edition and the OSHA Hazard Communication Standard [29 CFR 1910.1200]. The SDS information is based on sources believed to be reliable. Available data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control; **Hill Brothers Chemical Company** makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Additional information may be necessary or helpful for specific conditions and circumstances of use. It is the user's responsibility to determine the suitability of this product and to evaluate risks and exercise appropriate precautions for protection of employees and others prior to use.