

 <p><b>CHEMLABS</b> Quality Our Forte</p>	<p><b>LEONID CHEMICALS PVT. LTD., BANGALORE</b></p> <p>An ISO-9001:2008 Certified Company</p> <p><b>Quality Assurance Department</b></p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): AMMONIUM SULPHATE</p>			<p>1   Page of 1</p>

## SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name:  
Ammonium Sulphate

Catalog Numbers:  
A022

Synonyms:  
Unlisted

Company Information:  
LEONID CHEMICALS Pvt Ltd,  
62/A2, 1<sup>st</sup> Stage,  
Yeshvanthpur Industrial Suburb,  
Asoka puram School Road,  
Bangalore -22, Karnataka, INDIA  
Ph- +91-80-23378354  
Fax: +918023378354/23377126

## SECTION 2- COMPOSITION, INFORMATION ON INGREDIENTS

CAS # : 7783-20-2  
Chemical Name : Ammonium sulphate  
% : Min 99%  
EINECS# : 231-984-1  
Hazard Symbols : None Listed  
Risk Phrases : None Listed

## SECTION 3- HAZARDS IDENTIFICATION EMERGENCY OVERVIEW

Irritating to eyes, respiratory system and skin

Potential Health Effects

**Eye:**  
Causes eye irritation.

**Skin:**  
May cause skin irritation

**Ingestion:**

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Causes gastrointestinal irritation with nausea, vomiting and diarrhea

**Inhalation:**

May cause allergic respiratory reaction. May cause respiratory tract irritation

**Chronic:**

Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated exposure may cause permanent eye damage.

**SECTION 4- FIRST AID MEASURES**

**Eyes:**

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:**

Get medical aid if irritation develops or persists. Rinse area with large amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

**Ingestion:**

Induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

**Inhalation:**

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:**

Not Available

**SECTION 5- FIRE FIGHTING MEASURES**

**General Information:**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

**Extinguishing Media:**

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

**SECTION 6- ACCIDENTAL RELEASE MEASURES**

**General Information:**

Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**

Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions.

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## SECTION 7 - HANDLING and STORAGE

### Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get on skin or in eyes. Do not ingest or inhale.

### Storage:

Store in a cool, dry, well-ventilated area away from incompatible substances

## SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

### Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Personal Protective Equipment

#### Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

#### Skin:

Wear appropriate protective gloves to prevent skin exposure.

#### Clothing:

Wear appropriate protective clothing to prevent skin exposure.

#### Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State	: Solid
Color	: Colorless granular crystals.
Odor	: None.
pH	: 5.5 (0.1M sol.)
Vapor Pressure	: Not available.
Viscosity	: Not applicable.
Boiling Point	: 455 deg F
Freezing/Melting Point	: 455 deg F

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Auto ignition Temperature	: Not available.
Flash Point	: Not available.
Explosion Limits, lower	: Not available.
Explosion Limits, upper	: Not available.
Decomposition Temperature	: Not available.
Solubility in water	: 43% at 20°C
Specific Gravity/Density	: 1.77 g/mL (Water=1)
Molecular Formula	: (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>
Molecular Weight	: 132.127

#### SECTION 10 - STABILITY AND REACTIVITY

##### Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

##### Conditions to Avoid:

High temperatures

##### Incompatibilities with Other Materials:

Potassium + ammonium nitrate, potassium chlorate, potassium nitrate, sodium/potassium alloy + ammonium nitrate. Substance should not contact either zinc or copper bearing materials.

##### Hazardous Polymerization:

Has not been reported.

##### Hazardous Decomposition Products:

Oxides of phosphorus, irritating and toxic fumes and gases, nitrogen oxides (Nox) and ammonia (NH<sub>3</sub>).

#### SECTION 11 - TOXICOLOGICAL INFORMATION

##### RTECS#:

CAS# 7783-20-2: Bs4500000

##### LD50/LC50:

CAS# 7783-20-2: Oral, mouse: LD50 = 640 mg/kg; Oral, mouse: LD50 = 4280 mg/kg; Oral, rat: LD50 = 2840 mg/kg; Oral, rat: LD50 = 4540 mg/kg.

##### Carcinogenicity:

Ammonium sulfate - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. See actual entry in RTECS for complete information.

##### Other:

Not Available

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## SECTION 12 - ECOLOGICAL INFORMATION

### Ecotoxicity:

Mosquito fish (fresh water) TLm=1290 ppm/96H Daphnia magna (fresh water) TLm=292 ppm/96H

## SECTION 13 - DISPOSAL CONSIDERATIONS

Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

## SECTION 14 - TRANSPORT INFORMATION

### IATA

Shipping Name : AMMONIUM POLYSULPHIDE SOLUTION  
Hazard Class : 8  
UN Number : 2818  
Packing Group : II

### IMO

Shipping Name : AMMONIUM POLYSULPHIDE SOLUTION  
Hazard Class : 8  
UN Number : 2818  
Packing Group : II

### RID/ADR

Shipping Name : AMMONIUM POLYSULPHIDE SOLUTION  
Hazard Class : 8  
UN Number : 2818  
Packing group : II

## SECTION 15 - REGULATORY INFORMATION

### European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols : Information not Available  
Risk Phrases : Information not Available  
Safety Phrases : Information not Available

WGK (Water Danger/Protection)

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CAS# 7783-20-2: 1

United Kingdom Occupational Exposure Limits Not Available

United Kingdom Maximum Exposure Limits Not Available

Canada

CAS# 7783-20-2 is listed on Canada's DSL List. CAS# 7783-20-2 is listed on Canada's Ingredient Disclosure List. Exposure Limits

US FEDERAL TSCA CAS# 7783-20-2 is listed on the TSCA inventory.

#### SECTION 16 - ADDITIONAL INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Leonid Chemicals Pvt. Ltd. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Leonid Chemicals Pvt. Ltd. has been advised of the possibility of such damages.

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		(CODE) SECTION : A022	
Title: SPECIFICATION MANUAL - AMMONIUM SULPHATE			Issue : 02 Rev.: 00 1   Page of 2

### Specification manual - Ammonium sulphate

$H_8N_2O_4S$

Mol Wt: 132.13

**Product** : Ammonium sulphate LR  
**Description** : A white crystalline powder  
**Cat No** : A022  
**CAS No** : 7783-20-2  
**Prepared Date** : 07.03.2005  
**Approved Date** : 07.03.2005

REVISION HISTORY			
Issue/Rev	Description of Change	Author	Effective Date
01/00	Initial Release	S. Paul Joshua	07.03.2005
02/00	Reviewed no changes	S. Paul Joshua	01.04.2011
Next Review Due :	02.04.2015		
To be reviewed by :	Head-QC/QA		

Sl. No.	Tests	Specification
		LR
1	Assay (after drying)	Min 99.0%
2	pH of the solution (5% solution)	5-6
3	Chloride (Cl)	0.005%

Approved By: S.Paul Joshua, Head Quality Control and Quality Assurance