

 <p>CHEMLABS Quality Our Forte</p>	<p>LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p>An ISO-9001:2008 Certified Company</p> <p>Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2010</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): TETRAETHYL AMMONIUM HYDROGEN SULPHATE</p>			<p>1 Page of 1</p>

SECTION1-CHEMICALPRODUCTAND COMPANY IDENTIFICATION

MSDS Name:

Tetraethyl ammonium Hydrogen Sulfate

Catalog Numbers:

T066

Synonyms:

None

Company Information:

LEONID CHEMICALS Pvt Ltd,
62/A-2, 1st Stage,
Yeshvanthpur Industrial Suburb,
Asoka puram School Road,
Bangalore -22, Karnataka, INDIA
Ph- +91-80-23378354
Fax: +918023378354/23377126

SECTION2 -COMPOSITION, INFORMATION ON INGREDIENTS

CAS #	:	16873-13-5
Chemical Name	:	Tetraethyl ammonium Hydrogen Sulfate
%	:	98%
EINECS#	:	240-899-9
Hazard Symbols	:	None Listed
Risk Phrases	:	None Listed

SECTION 3 -HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Not available.

Potential Health Effects

Eye:

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May cause eye irritation.

Skin:

May cause skin irritation.

Ingestion:

May cause irritation of the digestive tract.

Inhalation:

May cause respiratory tract irritation.

Chronic:

No information found.

SECTION4 -FIRSTAID MEASURES

Eyes:

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

Skin:

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

Remove from exposure and move to fresh air immediately. Get medical aid if cough or other symptoms appear.

Notes to Physician:

SECTION5 -FIREFIGHTING 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

SECTION6 -ACCIDENTALRELEASEMEASURES

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General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, and then place into a suitable container for disposal.

SECTION 7 -HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage:

Store in a cool, dry place. Keep container closed when not in use.

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:

Not available.

Skin:

Wear appropriate protective gloves and clothing to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to minimize contact with skin.

Respirators:

Wear a NIOSH /MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.



SECTION 9 -PHYSICAL AND CHEMICAL PROPERTIES

Physical State

: Solid

Color

: white to off-white

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Odor	: Not available.
pH	: Not available.
Vapor Pressure	: Not available.
Viscosity	: Not available.
Boiling Point	: Not available.
Freezing/Melting Point	: 151-154C
Autoignition Temperature	: Not applicable.
Flash Point	: Not applicable.
Explosion Limits, lower	: Not available.
Explosion Limits, upper	: Not available.
Decomposition Temperature	: Not available
Solubility in water	: Soluble in water.
Specific Gravity/Density	: Not available
Molecular Formula	: (C ₂ H ₅) ₄ N (HSO ₄)
Molecular Weight	: 227.23

SECTION 10 -STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Moisture, strong oxidants.

Incompatibilities with Other Materials:

Strong oxidizing agents Hazardous Decomposition Products: Nitrogen oxides, sulfur dioxide, carbon monoxide, carbon dioxide.

Hazardous Polymerization:

Has not been reported

SECTION 11 -TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 16873-13-5 unlisted. LD50/LC50:
Not available.

Carcinogenicity:

Tetraethyl ammonium Hydrogen Sulfate
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
See actual entry in RTECS for complete information.

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SECTION12 -ECOLOGICALINFORMATION

Not available

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 INFORM ATION

IATA

Not regulated as a hazardous material.

IMO

Not regulated as a hazardous material.

RID/ADR

Not regulated as a hazardous material.

SECTION15 -REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

Risk Phrases:



Safety Phrases:

WGK (Water Danger/Protection) CAS# 16873-13-5: No information available.

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

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None of the chemicals in this product are listed on the DSL/NDSL list. CAS# 16873-13-5 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits US FEDERAL

TSCA CAS# 16873-13-5 is not listed on the TSCA inventory. It is for research and development use only.

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 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 has been advised of the possibility of such damages.



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<p>Title: SPECIFICATION MANUAL FOR TETRAETHYLAMMONIUMHYDROGENSULPHATE</p>			<p>1 Page of 1</p>

Specification For Tetraethylammoniumhydrogensulphate

(C₂H₅)₄N (HSO₄) **MW: 227.3**
CAS No : 16873-13-5
Product : TETRA ETHYL AMMONIUM HYDROGEN SULPHATE LR
Grade
Description : Crystals
Cat No : T066
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	01.04.2010
Next Review Due :	02.04.2015		
To be reviewed by :	Head-QC/QA		

Sl. No.	Tests	Specification
		LR
1	Assay (T)	≥ 98%
2	Water	≤ 2%
3	Melting point	240 - 245°C

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