
 <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) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): ACETIC ACID</p>		<p>1 Page of 1</p>	

ACETIC ACID

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SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATIONS
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MSDS Name: Acetic acid

Catalog Numbers: A028

Synonyms: Information not available.

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

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SECTION 2- COMPOSITION, INFORMATION ON INGREDIENTS
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CAS # : 64-19-7
Chemical Name : Acetic acid
% : Min 99.7%
EINECS# : 200-580-7
Hazard Symbols : C
Risk Phrases : 10 35

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SECTION 3- HAZARDS IDENTIFICATION
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EMERGENCY OVERVIEW

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Flammable. Causes severe burns.

Potential Health Effects Eye:

Causes severe eye burns. Contact with liquid or vapor causes severe burns and possible irreversible eye damage.

Skin:

May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Causes severe burns with delayed tissue destruction.

Ingestion:

May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. Causes severe pain, nausea, vomiting, diarrhea, and shock.

Inhalation:

Effects may be delayed. May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema.

Chronic:

Prolonged or repeated skin contact may cause dermatitis. Repeated inhalation may cause chronic bronchitis. Repeated exposure may cause erosion of teeth.

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SECTION 4- FIRST AID MEASURES
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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:

Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Do not induce vomiting. 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 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:

Information not available.

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SECTION 5- FIRE FIGHTING MEASURES
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General Information:

Will burn if involved in a fire. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Reacts with most metals to form highly flammable hydrogen gas which can form explosive mixtures with air.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

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SECTION 6 -ACCIDENTAL RELEASE MEASURES
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General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Use water spray to dilute spill to a non-flammable mixture. Avoid runoff into storm sewers and ditches which lead to waterways. Remove all sources of ignition.

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SECTION 7 – HANDLING AND STORAGE
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Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Do not get on skin or in eyes. Avoid ingestion and inhalation. Use only in a chemical fume hood.

Storage:



Keep away from heat, sparks, and flame. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Store in a suitable container in a dry area above the substance's freezing point.

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SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION
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Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

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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 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.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES
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Physical State	: Clear liquid
Color	: clear colourless liquid
Odor	: characteristic odour
pH	: Not available.
Vapor Pressure	: 15 mm Hg @20°C
Viscosity	: 1.53 mPas 25°C
Boiling Point	: 117 - 118°C @ 760.00mm Hg
Freezing/Melting Point	: 16.2°C
Auto ignition Temperature	: 427°C (800.60°F)
Flash Point	: 40 deg C (104.00°F)
Explosion Limits, lower	: 17 vol %
Explosion Limits, upper	: 04 vol %
Decomposition Temperature	: Not available.
Solubility in water	: Miscible with water
Specific Gravity/Density	: 1.0490 g/cm ³
Molecular Formula	: C ₂ H ₄ O ₂
Molecular Weight	: 60.04

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SECTION 10 - STABILITY AND REACTIVITY
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Chemical Stability:

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

Conditions to Avoid:

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Ignition sources, excess heat.

Incompatibilities with Other Materials:

Metals, strong oxidizing agents, strong bases, amines, ammonium nitrate, chlorine trifluoride, nitric acid, permanganates, sodium peroxide, hydrogen peroxides, acetaldehyde, acids (mineral, oxidizing, e.g. chromic acid, hypochlorous acid, nitric acid, sulfuric acid), caustics (e.g. ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide), chlorosulfonic acid, oleum, bromine pentafluoride, perchloric acid, potassium-tert-butoxide.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide

Hazardous Polymerization:

Will not occur

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SECTION 11 - TOXICOLOGICAL INFORMATION
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RTECS#:

CAS# 64-19-7: Af1225000

LD50/LC50:

CAS# 64-19-7: Draize test, rabbit, skin: 50 mg/24H Mild; Inhalation, mouse: LC50 = 5620 ppm/1H; Oral, rat: LD50 = 3310 mg/kg; Skin, rabbit: LD50 = 1060 uL/kg. Not available.

Carcinogenicity:

Acetic acid - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Other:

See actual entry in RTECS for complete information.

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SECTION 12 - ECOLOGICAL INFORMATION
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Ecotoxicity:



Daphnia: EC50: 95 mg/l; 24H; .Fish: Rainbow trout: LC100: >315 mg/l; 24H; Fish: Pimephals prome: LC50: 88 mg/l; 96H; .Bluegill (fresh water) TLM=75 ppm/96H Goldfish (fresh water) TLM=100 ppm/96H Shrimp (aerated water) LC50=100-330 ppm/48H

Other:

Biodegradable.

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SECTION 13 DISPOSAL CONSIDERATIONS -
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Dispose of in a manner consistent with federal, state, and local regulations.

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SECTION 14 - TRANSPORT INFORMATION
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IATA

Shipping Name : ACETIC ACID GLACIAL

Hazard Class : 8

UN Number : 2789

Packing Group : II

IMO

Shipping Name : ACETIC ACID,

GLACIAL Hazard Class: 8

UN Number : 2789

RID/ADR

Shipping Name : ACETIC ACID, GLACIAL

Hazard Class : 8

UN Number : 2789

Packing group : II

USA RQ:

CAS# 64-19-7: 5000 lb final RQ; 2270 kg final RQ

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SECTION 15 - REGULATORY INFORMATION
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European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols : C



Risk Phrases:

R 10 Flammable.

R 35 causes severe burns.

Safety Phrases:

S 23 Do not inhale gas/fumes/vapor/spray.

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S 26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 64-19-7: 1

United Kingdom Occupational Exposure Limits

CAS# 64-19-7: OES-United Kingdom, TWA 10 ppm TWA; 25 mg/m³ TWA CAS# 64-19-7: OES-United Kingdom, STEL 15 ppm STEL; 37 mg/m³ STEL

United Kingdom Maximum Exposure Limits

Information not available

Canada

CAS# 64-19-7 is listed on Canada's DSL List.

CAS# 64-19-7 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 64-19-7: OEL-AUSTRALIA: TWA 10 ppm (25 mg/m³); STEL 15 ppm (37 mg/m³)

OEL-AUSTRIA: TWA 10 ppm (25 mg/m³)

OEL-BELGIUM: TWA 10 ppm (25 mg/m³); STEL 15 ppm (37 mg/m³)

OEL-CZECHOSLOVAKIA: TWA 25 mg/m³; STEL 50 mg/m³

OEL-DENMARK: TWA 10 ppm (25 mg/m³) OEL-FINLAND: TWA 10 ppm (25 mg/m³); STEL 15 ppm (37 mg/m³); Skin

OEL-FRANCE: STEL 10 ppm (25 mg/m³)

OEL-GERMANY: TWA 10 ppm (25 mg/m³)



OEL-HUNGARY: TWA 10 mg/m³; STEL 20 mg/m³

OEL-INDIA: TWA 10 ppm (25 mg/m³); STEL 15 ppm (37 mg/m³)

OEL-JAPAN: TWA 10 ppm (25 mg/m³)

OEL-THE NETHERLANDS: TWA 10 ppm (25 mg/m³)

OEL-THE PHILIPPINES: TWA 10 ppm (25 mg/m³)

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OEL-POLAND: TWA 5 mg/m³

OEL-RUSSIA: TWA 10 ppm; STEL 5 mg/m³;Skin

OEL-SWEDEN: TWA 10 ppm (25 mg/m³); STEL 15 ppm (35 mg/m³)

OEL-SWITZERLAND: TWA 10 ppm (25 mg/m³); STEL 20 ppm (50 mg/m³)

OEL-THAILAND: TWA 10 ppm (25 mg/m³)

OEL-TURKEY: TWA 10 ppm (25 mg/m³)

OEL-UNITED KINGDOM: TWA 10 ppm (25 mg/m³); STEL 15 ppm (35 mg/m³)

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

US FEDERAL

TSCA

CAS# 64-19-7 is listed on the TSCA inventory.

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SECTION 16-ADDITIONAL INFORMATION

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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.

Quality Our Forte

	LEONID CHEMICALS PVT. LTD., BANGALORE An ISO-9001:2008 Certified Company Quality Assurance Department	(CODE) DOCUMENT : R/QPM/8.2.4/06	
		(CODE) SECTION : A028	
Title: SPECIFICATION MANUAL - ACETIC ACID GLACIAL			Issue : 02 Rev.: 00 1 Page of 2

Specification manual - Acetic acid glacial

$C_2H_4O_2$

Mol Wt: 60.05

Product : Acetic acid glacial AR
Description : A clear colourless liquid with a characteristic odour
Cat No : A028
CAS No : 64-19-7
Prepared Date : 27-12-2007
Approved Date : 27-12-2007

REVISION HISTORY			
Issue/Rev	Description of Change	Author	Effective Date
01/00	Initial Release	S. Paul Joshua	27-12-2007
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	NLT 99.7%
2	Freezing point	16.2°C
3	Density at 20°C	1.048-1.050 g/mL
4	Water insoluble matter	Passes test
5	NVM	0.001 %
6	Chloride	0.0001 %
7	Formate	0.01 %
8	Sulphate	0.0001 %
9	Arsenic	0.00005 %
10	Iron	0.00002 %

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

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11	Heavy metals	0.00005 %
12	Substances reducing Dichromate	0.003 %

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

62/A2 1st Stage Yeshvanthpur, Industrial Suburb, Ashokpuram School Road Bangalore 560022 Karnataka, INDIA.

Telefax: +91 080 23378354/23377126 Email:paul@leonidchemicals.net,

www.leonidchemicals.com