



**LEONID CHEMICALS PVT. LTD.,
BANGALORE**

An ISO-9001:2008 Certified Company

Quality Assurance Department

(CODE) DOCUMENT : WI

(CODE) SECTION : WI/SM

(DATE) : 01.04.2011



Issue : 02

Rev.: 00

Title: MATERIAL SAFETY DATA SHEET (MSDS): ACETONE

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SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: Acetone

Cat No. : A002, A001, A999, A997, A111, A394

Synonyms: dimethyl ketone, acetone, propanone

CAS-No. : 67-64-1

Company Information:

LEONID CHEMICALS Pvt Ltd,
62/A2, 1st Stage,
Yeshvanthpur Industrial Suburb,
Ashokpuram School Road,
Bangalore -22, Karnataka, INDIA
Ph- +91-80-23378354
Fax: +918023378354/23377126
Email: lab@leonidchemicals.net

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flammable liquids (Category 2)

Eye irritation (Category 2)

Specific target organ toxicity - single exposure (Category 3)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Highly flammable. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.



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Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Hazard statement(s)

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard information (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)

R-phrases(s)

R11 Highly flammable.
R36 Irritating to eyes.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

S-phrases(s)

S 9 Keep container in a well-ventilated place.
S16 Keep away from sources of ignition - No smoking.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Other hazards - none



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: C₃H₆O

Molecular Weight: 58.08 g/mol

CAS-No.: 67-64-1

EC-No. : 200-662-2

Index-No. : 606-001-00-8

SECTION 4. FIRST AID MEASURES

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.



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Indication of any immediate medical attention and special treatment needed
no data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides

Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

Reference to other sections



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For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Specific end uses

no data available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses 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. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry



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hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

- a) Appearance Form : liquid, clear
Colour : colourless
- b) Odour : no data available
- c) Odour Threshold : 19.8 ppm
- d) pH : 7
- e) Melting point/freezing point
Melting point/range : -94 °C - lit.
- f) Initial boiling range : 56 °C at 1.013 hPa - lit.
- g) Flash point : -17.0 °C - closed cup
- h) Evaporation rate : 5.6 (Butyl Acetate = 1.0)
- i) Flammability (solid, gas) : no data available
- j) Upper/lower flammability
Upper explosion limit : 13 % (V)
Lower explosion limit : 2 % (V)
- k) Vapour pressure : 533.3 hPa at 39,5 °C
: 245.3 hPa at 20,0 °C
- l) Vapour density : 2.0
- m) Relative density : 0.791 g/cm³ at 25 °C



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- n) Water solubility : completely miscible
- o) Partition coefficient : noctanol/waterlog Pow: -0,24
- p) Autoignition temperature : 465.0 °C
- q) Decomposition temperature : no data available
- r) Viscosity : 0.32 mPa.s @ 20 °C
- s) Explosive properties : no data available
- t) Oxidizing properties : no data available

Other safety information

Surface tension: 23.2 mN/m at 20.0 °C

SECTION 10. STABILITY AND REACTIVITY

Reactivity

no data available

Chemical stability

no data available

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

Incompatible materials

Bases, Oxidizing agents, Reducing agents, Acetone reacts violently with phosphorous oxychloride.

Hazardous decomposition products

Other decomposition products - no data available

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD50 Oral - rat - 5.800 mg/kg



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Remarks: Behavioral: Altered sleep time (including change in righting reflex).
Behavioral: Tremor.
LC50 Inhalation - rat - 8 h - 50.100 mg/m³
LD50 Dermal - guinea pig - 7.426 mg/kg

Skin corrosion/irritation

Skin - rabbit - Mild skin irritation - 24 h

Serious eye damage/eye irritation

Eyes - rabbit - Eye irritation - 24 h

Respiratory or skin sensitization

Chronic exposure may cause dermatitis.

Germ cell mutagenicity

no data available

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.



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Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes Causes serious eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: AL3150000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Kidney - Irregularities - Based on Human Evidence

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 5.540,00 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates
EC50 - Daphnia magna (Water flea) - 13.500,00 mg/l - 48 h

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Results of PBT and vPvB assessment

no data available

Other adverse effects

no data available

SECTION 13. DISPOSAL CONSIDERATIONS



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Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

UN number

ADR/RID: 1090 IMDG: 1090 IATA: 1090

UN proper shipping name

ADR/RID: ACETONE

IMDG: ACETONE

IATA: Acetone

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

no data available

SECTION 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.



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Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

Chemical Safety Assessment
no data available

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.

CHEMLABS
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	LEONID CHEMICALS PVT. LTD., BANGALORE An ISO-9001:2008 Certified Company Quality Assurance Department	(CODE) DOCUMENT : R/QPM/8.2.4/06	
		(CODE) SECTION : A111	
Title: SPECIFICATION MANUAL - ACETONE FOR HPLC			Issue : 02 Rev.: 00
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Specification manual - Acetone for HPLC

Product : Acetone for HPLC **MW 58.08**
Description : A clear colourless liquid
Cat No : A111
Cas No : 67-64-1
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	07.03.2004
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	
		HPLC	
1	Assay(GC)	Min 99.8%	
2	Water	0.05%	
3	Acidity (CH ₃ COOH)	0.002%	
4	UV	330 nm	1.0
		350 nm	0.1
		360 nm	0.01
5	Boiling point	56°C	

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

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		(CODE) SECTION : A001	
Title: SPECIFICATION MANUAL – ACETONE LR			Issue : 02 Rev.: 00 1 Page of 1

Specification manual - Acetone

C₃H₆O



Mol Wt: 58.08

Product : Acetone LR
Description : Clear colourless liquid, free from visible impurities
Cat No : A001
Cas No : 67-64-1
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
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Next Review Due :	02.04.2015		
To be reviewed by :	Head-QC/QA		



Sl. No.	Tests	Specification	Protocol
		LR	
1	Assay (GC)	Min 99%	2/4/03
2	Boiling range	56-57°C	2/3.1-03
3	Acidity	0.012 %	2/2/01-A3
4	Water	0.5 %	2/3.1-19
5	NVM	0.005 %	2/3.1-01

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

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Title: SPECIFICATION MANUAL – ACETONE LR			2 Page of 1

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

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		(CODE) SECTION : A002	
Title: SPECIFICATION MANUAL - ACETONE			Issue : 02 Rev.: 00
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Specification manual - Acetone

Product : Acetone reagent AR
Description : A clear colourless liquid with a characteristic odour
Cat No : A002
Cas No : 67-64-1
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
		AR
1	Boiling range	56°C - 56.5°C
2	Refractive index	n _{20D} 1.3580 to 1.3600
3	Solubility	Miscible with water forming clear colourless solutions
4	Weight per ml at 20°C	0.789 to 0.791g
5	Acidity	0.002 %
6	Alkalinity	0.03 ml N/1 %
7	Non-volatile matter	0.0005 %
8	Aldehyde (HCHO)	0.002 %
9	Methanol	0.05 %

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

 Chemlabs	LEONID CHEMICALS PVT. LTD., BANGALORE An ISO-9001:2008 Certified Company Quality Assurance Department	(CODE) DOCUMENT : R/QPM/8.2.4/06 (CODE) SECTION : A002 (DATE) : 01.04.2011	 Issue : 02 Rev.: 00
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10	Substances reducing permanganate (O)	0.0002 %
11	Water	0.2 %

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