



**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):ACETYL CHOLINE IODIDE

1 | Page of 1

## SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Acetyl choline iodide

Catalog Numbers: A529

Synonyms: 2-(Acetyloxy)-N,N,N-trimethylethanaminium iodide

CAS-No. : 2260-50-6

Company Information:

**LEONID CHEMICALS Pvt Ltd,**  
62/A2, 1<sup>st</sup> Stage,  
Yeshwanthpur Industrial Suburb,  
Ashokpuram School Road,  
Bangalore -22, Karnataka, INDIA  
Ph- +91-80-23378354  
Fax: +918023378354/23377126  
Email: [lab@leonidchemicals.net](mailto:lab@leonidchemicals.net)

## SECTION 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

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

Acute toxicity, Oral (Category 4)

Skin irritation (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

Irritating to eyes, respiratory system and skin.

### 2.2 Label elements

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

Signal word

Warning

Hazard statement(s)

H302

Harmful if swallowed.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

Precautionary statement(s)

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/  
spray.



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2 | Page of 1

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

Statements none

Safety data sheet available on request.

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

Hazard symbol(s)

R-phrase(s)

R36/37/38

Irritating to eyes, respiratory system and skin.

S-phrase(s)

S26

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

2.3 Other hazards - none

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Synonyms : ACh  
Formula : C7H16INO2  
Molecular Weight : 273,11 g/mol

Component	Concentration
(2-Acetoxyethyl)trimethylammonium iodide	
CAS-No.	2260-50-6
EC-No.	218-862-3

### SECTION 4: First aid measures

#### 4.1 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



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3 | Page of 1

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

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**4.2 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.

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

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

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

**5.2 Special hazards arising from the substance or mixture**

Carbon oxides, nitrogen oxides (NOx), Hydrogen iodide

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information**

no data available

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.



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4 | Page of 1

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: -20 °C  
Hygroscopic.

### 7.3 Specific end uses

no data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Components with workplace control parameters

### 8.2 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

Safety glasses with side-shields conforming to EN166 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 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**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.



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5 | Page of 1

### Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- a) Appearance Form : powder  
Colour : white
- b) Odour : no data available
- c) Odour Threshold : no data available
- d) pH : no data available
- e) Melting point/freezing point : Melting point/range: 162 - 164 °C
- f) Initial boiling point and boiling range : no data available
- g) Flash point : no data available
- h) Evaporation rate : no data available
- i) Flammability (solid, gas) : no data available
- j) Upper/lower flammability or explosive limits : no data available
- k) Vapour pressure : no data available
- l) Vapour density : no data available
- m) Relative density : no data available
- n) Water solubility : no data available
- o) Partition coefficient: n-octanol/water : no data available
- p) Autoignition temperature : no data available
- q) Decomposition temperature : no data available
- r) Viscosity : no data available
- s) Explosive properties : no data available
- t) Oxidizing properties : no data available

### 9.2 Other safety information

no data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available



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6 | Page of 1

#### 10.2 Chemical stability

no data available

#### 10.3 Possibility of hazardous reactions

no data available

#### 10.4 Conditions to avoid

Exposure to moisture may affect product quality.

#### 10.5 Incompatible materials

Strong oxidizing agents

#### 10.6 Hazardous decomposition products

Other decomposition products - no data available

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - mouse - > 1.500 mg/kg

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

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**

Inhalation - May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**

no data available



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Title: MATERIAL SAFETY DATA SHEET (MSDS):ACETYL CHOLINE IODIDE

7 | Page of 1

#### Aspiration hazard

no data available

#### Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion Harmful if swallowed.

Skin May be harmful if absorbed through skin. Causes 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: KH3300000

### SECTION 12: Ecological information

#### 12.1 Toxicity

no data available

#### 12.2 Persistence and degradability

no data available

#### 12.3 Bioaccumulative potential

no data available

#### 12.4 Mobility in soil

no data available

#### 12.5 Results of PBT and vPvB assessment

no data available

#### 12.6 Other adverse effects

no data available

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.  
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

##### Contaminated packaging

Dispose of as unused product.



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8 | Page of 1

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: -                      IMDG: -                      IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: -                      IMDG: -                      IATA: -

### 14.4 Packaging group

ADR/RID: -                      IMDG: -                      IATA: -

### 14.5 Environmental hazards

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

### 14.6 Special precautions for user

no data available

## SECTION 15: Regulatory information

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

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

### 15.2 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





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9 | Page of 1

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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A529



Issue : 02

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Title: SPECIFICATION MANUAL - ACETYL CHOLINE IODIDE

1 | Page of 2

**Specification manual – Acetyl choline iodide**

**C<sub>7</sub>H<sub>16</sub>INO<sub>2</sub>**

**Mol Wt: 273.1**

**Product : Acetyl choline iodide**

**Description : white powder**

**Cat No : A529**

**CAS No : 2260 – 50 – 6**

**Prepared Date : 19-07-2011**

**Approved Date : 19-07-2011**

**REVISION HISTORY**

Issue/Rev	Description of Change	Author	Effective Date
01/00	Initial Release	S. Paul Joshua	19.07.2011
02/00	Reviewed no changes	S. Paul Joshua	NA
Next Review Due :	02.04.2015		
To be reviewed by :	Head-QC/QA		

Sl. No	Tests	Limit	Protocol
1	M.pt.	161 - 162 <sup>0</sup> C	2/3.1-06
2	Assay (AT)	≥ 99.0 %	
3	Identification	IR	

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

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

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

www.leonidchemicals.com