## SECTION1-CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**MSDS Name:**
Hydrochloric Acid

**Catalog Numbers:**
H005

**Synonyms:**
Unlisted

**Company Identification:**
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 # | : | 7647-01-0 |
| Chemical Name | : | Hydrochloric acid |
| % | : | 35-38% |
| EINECS# | : | 231-595-7 |
| Hazard Symbols | : | None Listed |
| Risk Phrases | : | None Listed |

## SECTION 3 -HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**
Not available.
Potential Health Effects The toxicological properties of this material have not been investigated. Use appropriate procedures to prevent opportunities for direct contact with the skin or eyes and to prevent inhalation.

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## SECTION4 -FIRSTAID MEASURES

**Eyes:**
Not available.

**Skin:**
Not available.

**Ingestion:**
Not available.

**Inhalation:**
Not available.

**Notes to Physician:**

## SECTION5 -FIREFIGHTING MEASURES

**General Information:**
Not available.

**Extinguishing Media:**
Not available.

## SECTION6 -ACCIDENTALRELEASEMEASURES

**General Information:**
Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**
Not available.

## SECTION 7 -HANDLING AND STORAGE

**Handling:**
Not available.

**Storage:**
Not available.

## SECTION 8 -EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Personal Protective Equipment
**Eyes:**

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Not available.

**Skin:**
Not available.

**Clothing:**
Not available.

**Respirators:**
Not available.

## SECTION9 -PHYSICALAND CHEMICALPROPERTIES

| | |
|---|---|
| Physical State | : Liquid |
| Color | : Clear, colorless to faintly yellow liquid. |
| Odor | : Pungent odor. |
| pH | : 1.1 (0.1N Solution) |
| Vapor Pressure | : Not available. |
| Viscosity | : Not available. |
| Boiling Point | : 100°C |
| Freezing/Melting Point | : 0°C |
| 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 | : 1.0 -1.2 |
| Molecular Formula | : HCl |
| Molecular Weight | : 36.46 |

## SECTION 10 -STABILITY AND REACTIVITY

**Chemical Stability:**
Not available.

**Conditions to Avoid:**
Not available.

**Incompatibilities with Other Materials:**
Not available.

**Hazardous Decomposition Products:**
Not available.

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**Hazardous Polymerization:**
Will not occur.

## SECTION 11 -TOXICOLOGICAL INFORMATION

**RTECS#:**
CAS# 7647-01-0: M W 4025000 M W 4031000
LD50/LC50: CAS# 7647-01-0: Inhalation, mouse: LC50 = 1108 ppm/1H;Inhalation, mouse: LC50 = 20487 mg/$m^3$/5M;Inhalation, mouse: LC50 = 3940 mg/$m^3$/30M;Inhalation, mouse: LC50 = 8300 mg/$m^3$/30M;Inhalation, rat: LC50 = 3124 ppm/1H;Inhalation, rat: LC50 = 60938 mg/m3/5M; Inhalation, rat: LC50 = 7004 mg/$m^3$/30M;Inhalation, rat: LC50 = 45000 mg/$m^3$/5M;Inhalation, rat: LC50 = 8300 mg/$m^3$/30M;Oral, rabbit: LD50 = 900 mg/kg.
Carcinogenicity: Hydrochloric acid -Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. See actual entry in RTECS for complete information.

## SECTION12 -ECOLOGICALINFORMATION

## 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**
Shipping Name : Hydrochloric acid
Hazard Class : 8
UN Number : 1805
Packing Group : III

**IMO**
Shipping Name : Hydrochloric acid
Hazard Class : 8
UN Number : 1805
Packing Group : III

**RID/ADR**
Shipping Name : Hydrochloric acid
Hazard Class : 8
UN Number : 1805
Packing group : III
USA RQ: CAS# 7647-01-0: 5000 lb final RQ; 2270 kg final RQ

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## 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# 7647-01-0: 1
United Kingdom Occupational Exposure Limits
CAS# 7647-01-0: OES-United Kingdom, TW A 1 ppm TW A;2 mg/$m^3$ TW A CAS# 7647-01-0: OES-United Kingdom, STEL 5 ppm STEL;8 mg/$m^3$ STEL (gas and aerosol mists)
United Kingdom Maximum Exposure Limits
Canada
CAS# 7647-01-0 is listed on Canada's DSL List.CAS# 7647-01-0 is listed on Canada's Ingredient Disclosure List.
Exposure Limits
CAS# 7647-01-0: OEL-AUSTRALIA: TWA 5 ppm (7 mg/$m^3$)
OEL-AUSTRIA: TWA 5 ppm (7 mg/$m^3$)
OEL-BELGIUM: STEL 5 ppm (7.7 mg/$m^3$)
OEL-DENMARK: STEL 5 ppm (7 mg/$m^3$)
OEL-FINLAND: STEL 5 ppm (7 mg/$m^3$); Skin
OEL-FRANCE: STEL 5 ppm (7.5 mg/$m^3$)
OEL-GERMANY: TWA 5 ppm (7 mg/$m^3$)
OEL-HUNGARY: STEL 5 mg/$m^3$
OEL-JAPAN: STEL 5 ppm (7.5 mg/$m^3$)
OEL-THE NETHERLANDS: TWA 5 ppm (7 mg/$m^3$)
OEL-THE PHILIPPINES: TWA 5 ppm (7 mg/$m^3$)
OEL-POLAND: TWA 5 mg/$m^3$
OEL-RUSSIA: STEL 5 ppm (5 mg/$m^3$)
OEL-SW EDEN: STEL 5 ppm (8 mg/$m^3$)
OEL-SW ITZERLAND: TWA 5 ppm (7.5 mg/$m^3$); STEL 10 ppm (15 mg/$m^3$)
OEL-THAILAND: TWA 5 ppm (7 mg/$m^3$)
OEL-TURKEY: TWA 5 ppm (7 mg/$m^3$)
OEL-UNITED KINGDOM: TWA 5 ppm (7 mg/$m^3$); STEL 5 ppm (7 mg/$m^3$)
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLVOEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV
**US FEDERAL**
TSCACAS# 7647-01-0 is listed on the TSCA inventory.

## SECTION16 –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, however arising, even if Leonid Chemicals Pvt. Ltd. has been advised of the possibility of such damages.

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# Specification manual - Hydrochloric acid

**HCl** **Mol Wt: 36.46**

**Product : Hydrochloric acid LR Grade**
**Description : A clear colourless fuming liquid**
**Cat No : H005**
**Cas No : 7647-01-0**
**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 (acidimetric) | 35 – 38 % |
| 2 | Free Chlorine (Cl) | 0.0005% |
| 3 | $H_2SO_4$ | 0.2% |

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


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