# Material Safety Data Sheet
# Lanthanum Solution

## Section 1 - Chemical Product and Company Identification

**MSDS Name:**
Lanthanum Solution
**Catalog Numbers:**
LC16050
**Synonyms:**
Lanthanum solution, APHA, for metals

## Section 2 – Composition, Information on Ingredients

| CAS# | Chemical Name: | Percent |
|---|---|---|
| 7732-18-5 | Water | >84 |
| 7647-01-0 | Hydrochloric acid | 6.8 |
| 10099-58-8 | Lanthanum chloride* | 8.8 |

*Lanthanum chloride is formed from the reaction of lanthanum oxide, CAS# 10099-58-8, with hydrochloric acid.

## Section 3 - Hazards Identification

### Emergency Overview

***Appearance:*** *clear, colorless to slight yellow solution*
**Danger!** *Corrosive. Causes burns by all exposure routes. Harmful or fatal if swallowed. May cause adverse reproductive effects based on animal studies.*
***Target Organs:*** *eyes, skin, respiratory and gastrointestinal systems, teeth, liver, kidneys*

### Potential Health Effects

**Eye:**
Causes burns to the eyes. Vapors are irritating to the eyes.
**Skin:**
Causes burns to the skin.
**Ingestion:**
Causes burns to the gastrointestinal tract. May cause headache.

**Inhalation:**
Causes burns to the respiratory tract.
**Chronic:**
May cause dermatitis, conjunctivitis, dental erosion, jaw necrosis, bronchitis, chemical pneumonitis, gastrointestinal disturbances. Reproductive toxicity effects have occurred in laboratory animals.

## Section 4 - First Aid Measures

**Eyes:**
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.
**Skin:**
Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid at once.
**Ingestion:**
Do not induce vomiting. Give conscious victim 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid at once.
**Inhalation:**
Move victim to fresh air immediately. If breathing is difficult, administer oxygen. Give artificial respiration if necessary. Get medical aid at once.
**Notes to Physician:**
Treat symptomatically and supportively.

## Section 5 - Fire Fighting 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. Contact with metals may evolve flammable hydrogen gas.
**Extinguishing Media:**
For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.
**Autoignition Temperature:**
No information found.
**Flash Point:**
No information found.
**NFPA Rating:**
Health- 3, Flammability- 0, Instability- 1
**Explosion Limits:**
Lower: n/a Upper: n/a

## Section 6 - Accidental Release Measures

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

**Spills/Leaks:**

Absorb spill with inert material such as sand, vermiculite, or diatomaceous earth, and transfer to a suitable container labeled for later disposal.

## Section 7 - Handling and Storage

**Handling:**

Wash thoroughly after handling. Do not ingest or inhale. Do not get in eyes, on skin, or on clothing.

**Storage:**

Store tightly capped in a cool, dry, well-ventilated area away from incompatible materials.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**

Facilities using or storing this material should be equipped with an eyewash and safety shower. Provide local exhaust or general dilution ventilation to keep airborne levels below the permissible exposure limits.

**Exposure Limits:**

| Chemical Name: | ACGIH | NIOSH | OSHA |
|---|---|---|---|
| **Water** | None of the components are on this list | None of the components are on this list | None of the components are on this list |
| **Hydrochloric acid** | 2 ppm Ceiling | 5 ppm Ceiling<br>7 mg/m3 Ceiling<br>50 ppm IDLH | 5 ppm Ceiling<br>7 mg/m3 Ceiling |
| **Lanthanum chloride** | None of the components are on this list | None of the components are on this list | None of the components are on this list |

**OSHA Vacated PELs:**

Hydrochloric acid: 5 ppm Ceiling, 7 mg/m3 Ceiling

### Personal Protective Equipment

**Eyes:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Do not wear contact lenses when working with chemicals.

**Skin:**

Wear appropriate protective 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. Always use a NIOSH-approved respirator when necessary.

## Section 9 - Physical and Chemical Properties

**Physical State:** Clear liquid
**Color:** Colorless
**Odor:** Pungent

| | |
|---|---|
| **pH:** | Acidic |
| **Vapor Pressure:** | No information found. |
| **Vapor Density:** | No information found. |
| **Evaporation Rate:** | No information found. |
| **Viscosity:** | No information found. |
| **Boiling Point:** | No information found. |
| **Freezing/Melting Point:** | No information found. |
| **Decomposition Temperature:** | No information found. |
| **Solubility in water:** | Soluble |
| **Specific Gravity/Density:** | No information found. |
| **Molecular Formula:** | No information found. |
| **Molecular Weight:** | No information found. |

## Section 10 - Stability and Reactivity

**Chemical Stability:**
Stable under normal temperatures and pressures.

**Conditions to Avoid:**
Incompatible materials, excess heat.

**Incompatibilities with Other Materials:**
Strong oxidizing agents, reducing agents, bases, metals.

**Hazardous Decomposition Products:**
Hydrogen chloride.

**Hazardous Polymerization:**
Has not been reported

## Section 11 - Toxicological Information

**RTECS:**
CAS# 7732-18-5: ZC0110000
CAS# 7647-01-0: MW4025000
CAS# 10099-58-8: OE4375000

**LD50/LC50:**
CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg
CAS# 7647-01-0:
Inhalation, rat: LC50 = 3124 ppm/1H
Oral, rat: LD50 = 700 mg/kg
Dermal, rabbit: LD50 = 5010 mg/kg
CAS# 10099-58-8:
Oral, rat: LD50 = 2370 mg/kg (as La)

**Carcinogenicity:**
None of the chemicals in this product are listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

**Epidemiology:**
No information found

**Teratogenicity:**
No information found

**Reproductive:**
Reproductive toxicity effects have occurred in laboratory animals.
**Mutagenicity:**
No information found
**Neurotoxicity:**
No information found

## Section 12 - Ecological Information

No information found

## Section 13 - Disposal Considerations

**Dispose of in accordance with Federal, State, and local regulations.**

## Section 14 - Transport Information

**US DOT**

**Shipping Name:** Hydrochloric acid, solution
**Hazard Class:** 8
**UN Number:** UN1789
**Packing Group:** PG II

## Section 15 - Regulatory Information

### US Federal

**TSCA:**
CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 7647-01-0 is listed on the TSCA Inventory.
CAS# 10099-58-8 is listed on the TSCA Inventory.
**SARA Reportable Quantities (RQ):**
CAS# 7647-01-0: final RQ = 5000 pounds (2270 kg)
**CERCLA/SARA Section 313:**
This material contains Hydrochloric acid (CAS# 7647-01-0, 6.8%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
**OSHA - Highly Hazardous:**
CAS# 7647-01-0 is considered highly hazardous by OSHA.

### US State

**State Right to Know:**
Hydrochloric acid can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
**California Regulations:**
None

### European/International Regulations

**Canadian DSL/NDSL:**

CAS# 7732-18-5 is listed on Canada's DSL List.
CAS# 7647-01-0 is listed on Canada's DSL List.
CAS# 10099-58-8 is listed on Canada's DSL List.

**Canada Ingredient Disclosure List:**

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 7647-01-0 is listed on Canada's Ingredient Disclosure List.
CAS# 10099-58-8 is not listed on Canada's Ingredient Disclosure List.

## Section 16 - Other Information

MSDS Creation Date: February 18, 1998
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