OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

Regd Office: Unit no 12, 1st Floor,
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Oxford
Range of
Laboratory Chemicals

MATERIAL SAFETY DATA SHEET

HYDROCHLORIC ACID N/10 (0.1N) SOLUTION

MSDS CAS:

Issue date: 31/12/2023 Revision date: 31/12/2023

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

Product Name: HYDROCHLORIC ACID N/10
CAS#: Not available.
Synonym: Hydrochloric Acid, 0.1 N Aqueous Solution
Chemical Name: Hydrochloric Acid
Chemical Formula: Not available.

Brand: OXFORD

Details Of The Supplier Of The Safety Data Sheet:

Company identification: **OXFORD LAB FINE CHEM LLP**
Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6,
Navghar, Vasai (East). Palghar - 401 210.
Mumbai, Maharashtra, INDIA.
Tel: 91-250-2390989
Tel/Fax: 91-250-2390032

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Hydrochloric acid	7647-01-0	0.01 – 1%
Water	7732-18-5	≥99%

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Section 3: Hazards Identification

Toxicological Data on Ingredients: **Hydrogen chloride: GAS (LC50): Acute: 4701 ppm 0.5 hours [Rat].**

Potential Acute Health Effects:
Hazardous in case of eye contact (irritant). Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Classified 3 (Not classifiable for human.) by IARC [Hydrogen chloride]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, liver, mucous membranes, upper respiratory tract, skin, eyes, teeth. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Skin Contact:
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Serious Inhalation:
Not available.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: **Not available.**

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Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.
Auto-Ignition Temperature: Not applicable.
Flash Points: Not applicable.
Flammable Limits: Not applicable.
Products of Combustion: Not available.
Fire Hazards in Presence of Various Substances: Not applicable.
Explosion Hazards in Presence of Various Substances: Non-explosive in presence of open flames and sparks, of shocks.
Fire Fighting Media and Instructions: Not applicable.
Special Remarks on Fire Hazards: Not available.
Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:
Absorb with an inert material and put the spilled material in an appropriate waste disposal. Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:
Do not breathe gas/fumes/ vapour/spray. Never add water to this product. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

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Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective threshold limit value.

Personal Protection:
Splash goggles. Lab coat. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
Hydrogen chloride STEL: 7.5 (mg/m3) from ACGIH (TLV) [United States] STEL: 5 (ppm) from ACGIH (TLV) [United States] CEIL: 5 (ppm) from NIOSH CEIL: 7.5 (mg/m3) from NIOSH CEIL: 5 (ppm) from OSHA (PEL) [United States] CEIL: 7 (mg/m3) from OSHA (PEL) [United States]Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state	**: Liquid.**
Appearance	**: Clear liquid.**
Odour	**: Odorless.**
Taste	**: Not available.**
Molecular Weight	**: Not applicable.**
Color	**: Colourless.**
pH	**: < 2 at 20 °C**
Boiling Point	**: ≈ 100 °C**
Melting Point	**: Not available.**
Critical Temperature	**: Not available.**
Specific Gravity	**: Not available.**
Vapour Pressure	**: 14 mm Hg at 20 °C.**
Vapour Density	**: Not available.**
Volatility	**: Not available.**
Odour Threshold	**: Not available.**
Water/Oil Dist. Coeff.	**: Not available.**
Iconicity (in Water)	**: Not available.**
Dispersion Properties	**: See solubility in water, diethyl ether.**
Solubility	**: Water: Infinitely soluble.**

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Section 10: Stability and Reactivity Data

Stability: **The product is stable.**

Instability Temperature: **Not available.**

Conditions of Instability: **Incompatible materials**

Incompatibility with various substances: **Slightly reactive to reactive with alkalis.**

Corrosivity: **Slightly corrosive in presence of glass.**

Special Remarks on Reactivity:
Reacts violently (moderate reaction with heat of evolution) with water especially when water is added to the product. Isolate hydrogen chloride from heat, direct, alkalise (reacts vigorously), organic materials, and oxidizers (especially nitric acid and chlorates), amines, copper and alloys (e.g. brass), hydroxides, zinc (galvanized materials). Hydrogen chloride causes aldehydes and epoxides to violently polymerize. It reacts with oxidizers releasing chlorine gas. (Hydrogen chloride)

Special Remarks on Corrosivity: **Not available.**

Polymerization: **Will Not Occur.**

Section 11: Toxicological Information

Routes of Entry: **Absorbed through skin. Eye contact.**

Toxicity to Animals:
Hydrochloric Acid: Acute oral toxicity (LD50): 900 mg/kg [Rabbit]. Acute toxicity of the vapour (LC50): 1108 ppm, 1 hours [Mouse]. Acute toxicity of the vapour (LC50): 3124 ppm, 1 hours [Rat].

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: Classified 3 (Not classifiable for human.) by IARC [Hydrogen chloride]. Contains material which may cause damage to the following organs: kidneys, liver, mucous membranes, upper respiratory tract, skin, eyes, , teeth.

Other Toxic Effects on Humans:
Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

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Section 11: Toxicological Information (Continued)

Special Remarks on Toxicity to Animals:
Hydrochloric Acid Lowest Published Lethal Doses (LDL/LCL) LDL [Man] -Route: Oral; 2857 ug/kg LCL [Human] - Route: Inhalation; Dose: 1300 ppm/30M LCL [Rabbit] - Route: Inhalation; Dose: 4413 ppm/30M

Special Remarks on Chronic Effects on Humans:
May cause adverse reproductive effects (fetoxicity). May affect genetic material. (Hydrochloric Acid)

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: May cause slight skin irritation. Eyes: Causes eye irritation. Inhalation: May cause respiratory tract irritation. It is expected to be a low hazard for usual industrial handling. Ingestion: Ingestion of large doses may cause gastrointestinal tract disturbances with nausea, vomiting and diarrhea. May affect behaviour, the cardiovascular system, and urinary system (kidneys). Chronic Potential Health Effects: Prolonged or repeated inhalation or ingestion may affect liver, respiratory tract (chronic bronchitis), teeth (yellowing of teeth and erosion of tooth enamel), kidneys, and behaviour, Prolonged or repeated skin contact may cause dermatitis.

Section 12: Ecological Information

Eco toxicity: **Not available.**

BOD5 and COD: **Not available.**

Products of Biodegradation: **Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.**

Toxicity of the Products of Biodegradation: **The product itself and its products of degradation are not toxic.**

Special Remarks on the Products of Biodegradation: **Not available.**

Section 13: Disposal Considerations

Waste Disposal :
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

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Section 14: Transport Information

Land transport (ADR-RID)

Proper shipping name	**: HYDROCHLORIC ACID**
UN N°	**: 1789**
H.I. nr	**: 80**
ADR – Class	**: 8**
Labelling – Transport	**: 8 : Corrosive substance.**
ADR – Group	**: III**

Sea transport (IMDG)

Proper shipping name	**: HYDROCHLORIC ACID**
UN N°	**: 1789**
IMO-IMDG - Class or division	**: 8 : Corrosive substance.**
IMO-IMDG - Packing group	**: III**

Air transport (ICAO-IATA)

Proper shipping name	**: HYDROCHLORIC ACID**
UN N°	**: 1789**
IATA - Class or division	**: 8 : Corrosive substance.**
IATA - Packing group	**: III**

Section 15: Other Regulatory Information

Federal and State Regulations:

Connecticut hazardous material survey.: Hydrochloric acid Illinois toxic substances disclosure to employee act: Hydrochloric acid Illinois chemical safety act: Hydrochloric acid New York release reporting list: Hydrochloric acid Rhode Island RTK hazardous substances: Hydrochloric acid Pennsylvania RTK: Hydrochloric acid Minnesota: Hydrochloric acid Massachusetts RTK: Hydrochloric acid Massachusetts spill list: Hydrochloric acid New Jersey: Hydrochloric acid New Jersey spill list: Hydrochloric acid Louisiana RTK reporting list: Hydrochloric acid Louisiana spill reporting: Hydrochloric acid TSCA 8(b) inventory: Hydrochloric acid; Water TSCA 4(a) proposed test rules: Hydrochloric acid SARA 302/304/311/312 extremely hazardous substances: Hydrochloric acid CERCLA: Hazardous substances.: Hydrochloric acid: 5000 lbs. (2268 kg);

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

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Section 15: Other Regulatory Information (Continued)

Other Classifications:
WHMIS (Canada): **CLASS E: Corrosive liquid.**
DSCL (EEC): **Not available Not available**

HMIS (U.S.A.):
Health Hazard: **2**
Fire Hazard: **0**
Reactivity: **0**
Personal Protection: **j**

National Fire Protection Association (U.S.A.):
Health: **1**
Flammability: **0**
Reactivity: **0**
Specific hazard:

Protective Equipment: **Gloves. Lab coat. Not applicable. Splash goggles.**

Section 16 - Additional Information

References: **Not available.**

Other Special Considerations: **Not available**

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