

# 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

### HYDROFLUORIC ACID 40% Extra Pure (Suitable For Glass Etching) MSDS CAS: 7664-39-3

#### Section 1: Chemical Product and Company Identification

##### Section 1: Chemical Product

**Product Name:** HYDROFLUORIC ACID

**CAS#:** 7664-39-3

**Synonym:**

**Chemical Name:** Not available.

**Chemical Formula:**

**Molecular Weight:** 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
HYDROFLUORIC ACID	7664-39-3	100

**Toxicological Data on Ingredients:** Hydrofluoric acid: VAPOR (LC50): Acute: 1276 ppm 1 hours [Rat]. 342 ppm 1 hours [Mouse]. 1774 ppm 1 hours [Monkey]. 4327 ppm 0.5 hours [Guinea pig].

## Section 3: Hazards Identification

### Potential Acute Health Effects:

Very hazardous in case of skin contact (corrosive, irritant, permeator), of eye contact (irritant, corrosive), of ingestion. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

### Potential Chronic Health Effects:

Non-corrosive for skin. Non-irritant for skin. Non-sensitizer for skin. Non-permeator by skin. Non-irritating to the eyes. Non-hazardous in case of ingestion. Non-hazardous in case of inhalation. Non-irritant for lungs. Non-sensitizer for lungs. **CARCINOGENIC EFFECTS:** Not available. **MUTAGENIC EFFECTS:** Not available. **TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available. The substance may be toxic to lungs, mucous membranes, skin, eyes, bones teeth. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

## 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 15-30 minutes. Cold water may be used. Keep the eyelids apart and away from the eyeballs during irrigation. Do not use oily drops or ointment or HF skin burn treatments on the eyes. Get medical attention immediately, preferably an eye specialist. If a physician is not immediately available, apply one or two drops of ophthalmic anesthetic (e.g. 0.5% Pontocaine Hydrochloride solution). Place ice pack on eyes until reaching emergency room

### Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

## Section 4: First Aid Measures (continued)

### 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. While waiting for medical attention, it has been shown that flushing the affected area with water for one minute and then massaging HF Antidote Gel into the wound until there is a cessation of Pain is a most effective first aid treatment. HF Antidote Gel contains Calcium Gluconate which combines with HF for insoluble Calcium Fluoride, thus preventing the extraction of calcium from the body tissue and bones. Another alternative first aid treatment, after thorough washing of the burned area, is to immerse the burned area in a solution of 0.2% iced aqueous Hyamine 1622 or 0.13% iced aqueous Zephiran Chloride. If immersion is impractical, towels should be soaked with one of The above solutions and used as compresses for the burn area. Hyamine 1622 is a trade name for Tetracaine Benzethonium Chloride. Zephiran is a trade name for Benzalkonium Chloride. Again, seek medical attention as soon as possible for all burns regardless of how minor they may appear initially.

### 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:

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### Indication of any immediate medical attention and special treatment needed:

No data available

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## Section 5: Fire and Explosion Data

### Extinguishing media

#### Suitable extinguishing media

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

### Special hazards arising from the substance or mixture

Hydrogen fluoride

### Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### Further information

No data available

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

### 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

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### Reference to other sections

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.

Normal measures for preventive fire protection.

For precautions see section 2.2.

### 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.

Storage class (TRGS 510): Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

### Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## Section 8: Exposure Controls/Personal Protection

### Control parameters

#### Components with workplace control parameters

#### Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

### Personal protective equipment

#### Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). 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.

#### Full contact

**Material:** Chloroprene

**Minimum layer thickness:** 0,6 mm

## Section 8: Exposure Controls/Personal Protection (continued)

**Break through time: > 480 min**

**Material tested: Camapren® (KCL 722 / Aldrich Z677493, Size M)**

**Splash contact**

**Material: Nature latex/chloroprene**

**Minimum layer thickness: 0,6 mm**

**Break through time: 180 min**

**Material tested: Lapren® (KCL 706 / Aldrich Z677558, Size M)**

**data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, Contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any Specific use scenario.**

### 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.**

### Respiratory protection

**Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (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).**

### Control of environmental exposure

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

## Section 9: Physical and Chemical Properties

### Information on basic physical and chemical properties:

- a) **Appearance Form: liquid**
- b) **Odour : No data available**
- c) **Odour Threshold : No data available**
- d) **PH: No data available**
- e) **Melting point/freezing point: No data available**
- 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: noctanol/ water : No data available**
- p) **Auto-ignition 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**

### Other safety information

No data available

## Section 10: Stability and Reactivity Data

### Reactivity:

No data available

### Chemical stability:

Stable under recommended storage conditions.

### Possibility of hazardous reactions:

No data available

### Conditions to avoid:

No data available



## Section 10: Stability and Reactivity Data (continued)

### Incompatible materials:

No data available

### Hazardous decomposition products:

Other decomposition products - No data available

In the event of fire: see section 5

## Section 11: Toxicological Information

### Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrofluoric acid)

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

### Additional Information

RTECS: Not available

Fluoride ion can reduce serum calcium levels possibly causing fatal hypocalcemia., Material can cause severe burns and blistering which may not be immediately painful or visible. The full extent of tissue damage may not exhibit itself for 12-24 hours after exposure, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin, necrosis of the skin



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## Section 12: Ecological Information

### Toxicity

No data available

### Persistence and degradability

No data available

### Bio accumulative potential

No data available

### Mobility in soil

No data available

### Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

### Other adverse effects

No data available

## Section 13: Disposal Considerations

### Waste treatment methods

### Product:

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging Dispose of as unused product

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## Section 14: Transport Information

### UN number

**ADR/RID: 1790 IMDG: 1790 IATA: 1790**

### UN proper shipping name

**ADR/RID: HYDROFLUORIC ACID**

**IMDG: HYDROFLUORIC ACID**

**IATA: Hydrofluoric acid**

### Transport hazard class(es)

**ADR/RID: 8 (6.1) IMDG: 8 (6.1) IATA: 8 (6.1)**

### 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: Other Regulatory Information

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

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

### **Chemical Safety Assessment**

**For this product a chemical safety assessment was not carried out**

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## Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available

### *Disclaimer:*

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