

# Material Safety Data Sheet

## According to 91/155 EC


Printing date 08.07.2004

Reviewed on 30.05.2004

### 1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** ULANO HARDENER X
- **Application of the substance / the preparation** Preparation for screen printing
- **Manufacturer/Supplier:**  
 ULANO CORPORATION  
 110 THIRD AVENUE  
 BROOKLYN, NY 11217, U.S.A.  
 TEL.: +1.718 237-4700
- **EU INF**  
 ULANO INTERNATIONAL (V.I.) INC.  
 RUETISTRASSE 17  
 CH-8952 SCHLIEREN-ZUERICH/SWITZERLAND  
 TEL.: +41.1.755-4477
- **Further information obtainable from:** ULANO CORPORATION (USA): Dir. F. Widman
- **Information in case of emergency:** CHEMTREC (USA): +1-7035273887 (reverse-charge calls accepted)

### 2 Composition/information on ingredients

- **Chemical characterization:**
- **CAS No. Description**  
 7732-18-5 water, distilled, conductivity or of similar purity
- **Identification number(s)**
- **EINECS Number:** 231-791-2
- **Chemical characterization**
- **Dangerous components:**  
 CAS: 7647-01-0    hydrogen chloride < 2.5%  
 EINECS: 231-595-7  C; R 34-37

### 3 Hazards identification

- **Hazard description:** Not applicable.
- **Information concerning particular hazards for human and environment:** Not applicable.

### 4 First-aid measures

- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.

### 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
 CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

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### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Dilute with plenty of water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Additional information:** No dangerous substances are released.

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:**  
**7647-01-0 hydrogen chloride (< 2.5%)**  
OES Short-term value: 8 mg/m<sup>3</sup>, 5 ppm  
Long-term value: 2 mg/m<sup>3</sup>, 1 ppm  
gas and aerosol mists; ILV
- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling

### 9 Physical and chemical properties

- **General Information**

<b>Form:</b>	Liquid
<b>Colour:</b>	Red
<b>Odour:</b>	Odourless

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- **Change in condition**  
 Melting point/Melting range: Undetermined.  
 Boiling point/Boiling range: 100°C
- **Flash point:** Not applicable.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density at 20°C:** 1 g/cm<sup>3</sup>
- **Solubility in / Miscibility with water:** Soluble.
- **pH-value at 20°C:** 0.7 - 0.9

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
 When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.  
 The substance is not subject to classification according to the latest version of the EU lists.

### 12 Ecological information

- **General notes:** Generally not hazardous for water

### 13 Disposal considerations

- **Product:**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** 8 Corrosive substances.
- **Danger code (Kemler):** 80
- **UN-Number:** 1760
- **Packaging group:** III
- **Hazard label:** 8
- **Description of goods:** 1760 CORROSIVE LIQUID, N.O.S. (HYDROCHLORIC ACID)

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- **Maritime transport IMDG:**
- **IMDG Class:** 8
- **UN Number:** 1760
- **Label** 8
- **Packaging group:** III
- **EMS Number:** F-A,S-B
- **Marine pollutant:** No
- **Proper shipping name:** CORROSIVE LIQUID, N.O.S. (HYDROCHLORIC ACID)
  
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 8
- **UN/ID Number:** 1760
- **Label** 8
- **Packaging group:** III
- **Proper shipping name:** CORROSIVE LIQUID, N.O.S. (HYDROCHLORIC ACID)

### 15 Regulatory information

- **Labelling according to EU guidelines:**  
Observe the general safety regulations when handling chemicals.  
The substance is not subject to classification according to EU lists and other sources of literature known to us.
- **Special labelling of certain preparations:**  
Safety data sheet available for professional user on request.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant R-phrases**
- 34 Causes burns.
- 37 Irritating to respiratory system.