

# 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 A & B DEVELOPER-POWDER A
- **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**

- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 77-92-9      citric acid 75-100%  
 EINECS: 201-069-1    Xi; R 36

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

### 3 Hazards identification

· **Hazard description:**



Xi Irritant

· **Information concerning particular hazards for human and environment:**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 36 Irritating to eyes.

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

### 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.

(Contd. on page 2)

# Material Safety Data Sheet

## According to 91/155 EC

Printing date 08.07.2004

Reviewed on 30.05.2004

**Trade name: ULANO A & B DEVELOPER-POWDER A**

(Contd. of page 1)

### 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Do not allow product to reach sewage system or any water course.
- **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:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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

(Contd. on page 3)

## Material Safety Data Sheet

### According to 91/155 EC

Printing date 08.07.2004

Reviewed on 30.05.2004

**Trade name: ULANO A & B DEVELOPER-POWDER A**

(Contd. of page 2)

## 9 Physical and chemical properties

### · General Information

<b>Form:</b>	Powder
<b>Colour:</b>	White
<b>Odour:</b>	Odourless

### · Change in condition

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** Undetermined.

· **Flash point:** 1000 - 1020°C

### · Ignition temperature:

· **Decomposition temperature:** 153°C

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density at 20°C:** 1.665 g/cm<sup>3</sup>

· **Solubility in / Miscibility with water at 20°C:** 600 g/l

· **pH-value at 20°C:** 3.5

## 10 Stability and reactivity

### · Thermal decomposition / conditions to be avoided:

Stable at environment temperature.

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:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

## 12 Ecological information

· **General notes:** Not known to be hazardous to water.

(Contd. on page 4)

## Material Safety Data Sheet

### According to 91/155 EC

Printing date 08.07.2004

Reviewed on 30.05.2004

Trade name: ULANO A & B DEVELOPER-POWDER A

(Contd. of page 3)

### 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.

### 14 Transport information

- **Transport/Additional information:** Not dangerous according to the above specifications.

### 15 Regulatory information

- **Labelling according to EU guidelines:**  
Observe the general safety regulations when handling chemicals.  
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
- **Code letter and hazard designation of product:**  
Xi Irritant
- **Risk phrases:**  
36 Irritating to eyes.
- **Safety phrases:**  
24/25 Avoid contact with skin and eyes.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
60 This material and its container must be disposed of as hazardous waste.

### 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**  
36 Irritating to eyes.