

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME** : PH MINUS Liquid  
**PRODUCT TYPE** : Industrial cleaning product

**COMPANY** : UNI AMERICAS L.L.C.  
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United States of America  
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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

1. Hydrochloric acid CASnr: 7647-01-0

**3. HAZARDS IDENTIFICATION**

**HUMAN HEALTH** : Causes severe burns. Evolves toxic fumes in contact with oxidising substances and with metals.

**RISK CLASSIFICATION** : Corrosive R-34 Causes burns  
R-37 Irritating to the respiratory system

**ENVIRONMENTAL HAZARDS** : Harmful to aquatic organisms. Reduces the pH of water and soil.

**4. FIRST AID MEASURES**

**INHALATION** : Remove to fresh air. Keep the patient calm in an upright position. Transport to a hospital.

**SKIN** : Take off contaminated clothing immediately. Wash the skin with large amounts of water. Consult a physician.

**EYE** : Flush with large amounts of water. Seek medical advice.

**INGESTION** : Wash the mouth with water. Do **NOT** induce vomiting. Transport to a hospital.

**5. FIRE FIGHTING MEASURES**

**FLASH POINT** : The product does not burn.

**SPECIFIC HAZARDS** : See under 9

**EXTINGUISHING MEDIA** : No limitations.

**6. ACCIDENTAL RELEASE MEASURES**

- CLEANING UP** : Neutralise the spill with sodium bicarbonate. Absorb spills in sand, earth or other inert material. Dispose of the material according to local regulations. Scrub contaminated surfaces with detergent solution.
- ENVIRONMENTAL PRECAUTION** : Prevent contamination of soil and water.  
Do not let down into the environment without thinning and neutralisation.

#### 7. HANDLING AND STORAGE

- HANDLING** : Do not breathe vapours or mists. Use in well ventilated areas.
- STORAGE** : Keep in closed containers, in a dry place and frost free. Avoid contact with caustics and with oxidising agents.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- MAK** : 7 mg/m<sup>3</sup>.
- PREVENTIVE MEASURES** : Clean contaminated clothing before re-use. Use in well ventilated areas.
- PERSONAL PROTECTIVE EQUIPMENT** : Wear suitable protective clothing, eye protection and chemical resistant gloves and mask with filter EB/P2

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE** : Clear yellow liquid
- ODOUR** : Corrosive
- FLASH POINT** : None
- pH** : < 1
- BOILING POINT** : 100 °C
- DENSITY (20°C)** : 1.1 - 1.2
- SOLUBILITY** : Miscible with water, not miscible with organic solvents

#### 10. STABILITY AND REACTIVITY

- STABILITY** : Stable min 2 years at ambient temperature if stored in closed container.
- REACTIVITY** : Avoid contact with caustics and oxidising agents. Forms easily explosive products in contact with metals.
- HAZARDOUS DECOMPOSITION PRODUCTS** : Thermal decomposition may yield the following:  
Dichloromethylether, Chlorine, Hydrogen, Hydrogen chloride

#### 11. TOXICOLOGICAL INFORMATION

Information given is based on knowledge of the constituents and the toxicology of similar substances.

<b>ORAL</b>	:	Corrosive, short of breath, vomiting, blisters on lips and tongue. LD50(rat)= 700 mg/kg
<b>SKIN CONTACT</b>	:	Corrosive, redness, pain, severe burns. LD50(rabbit) = > 5 mg/kg
<b>EYE CONTACT</b>	:	Corrosive, loss of sight, severe burns.
<b>INHALATION</b>	:	Corrosive, throat ache, coughing, short of breath. LC50(rat) = > 3000 mg/kg

## 12. ECOLOGICAL INFORMATION

Information given is based on knowledge of the constituents and the toxicology of similar substances.

Reduction of pH can disturb the biological equilibrium in the aquatic environment. Do not let down into the environment without thinning and neutralisation.

LC50(fish): 10 mg/l (24hr)  
EC80(daphnia): 56 mg/l (17-24hr)

## 13. DISPOSAL CONSIDERATIONS

Dispose of according to local regulations. Contaminated product is to be regarded as chemical waste.

## 14. TRANSPORT INFORMATION

<b>UN-number</b>	:	1789
<b>ADR</b>	:	8.5b)
<b>IMO</b>	:	8/II

## 15. REGULATORY INFORMATION

<b>EG</b>	:	017-002-01x
<b>SYMBOL</b>	:	Corrosive
<b>R-PHRASES</b>	:	34, 37
<b>S-PHRASES</b>	:	2, 26

## 16. OTHER INFORMATION

The information contained herein relates only to the specific material identified. Uniam believes that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, express or implied, is made as to the accuracy, reliability, or completeness of the information. Uniam urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

January 1, 2009