

PT. Nuansa Kimia Sejati Safety Data Sheet

Date of issue:

18.02.2007

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

Identification of the product

Product name: Hydrochloric acid

Use of the substance/preparation

Chemical production

2. Composition/information on ingredients

Aqueous solution.

Synonyms Hydrogen chloride solution

Hazardous ingredients:

Name according to EC Directives:

| <i>CAS-No.</i> | <i>EC No.</i> | <i>EC-Index-No.</i> | <i>Classification</i> |
|--------------------------------|---------------|---------------------|-----------------------|
| Hydrochloric acid 7647-01-0 | 231-595-7 | 017-002-01-X | C; R34 Xi; R37 |

(Full text of R-Phrases in heading 16)

3. Hazards identification

No hazardous product as specified in Directive 67/548/EEC.

4. First aid measures

After inhalation: fresh air.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist.

After swallowing: make victim drink plenty of water. Consult doctor if feeling unwell.

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5. Fire-fighting measures

Suitable extinguishing media:

In adaption to materials stored in the immediate neighbourhood.

Special risks:

Non-combustible. Hydrogen may form upon contact with metals (danger of explosion!). Ambient fire may liberate hazardous vapours. The following may develop in event of fire: hydrochloric acid.

Special protective equipment for fire fighting:

Do not stay in dangerous zone without self-contained breathing apparatus.

Other information:

Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.

6. Accidental release measures

Person-related precautionary measures:

Do not inhale vapours/aerosols. Avoid substance contact.

Environmental-protection measures:

Do not allow to enter sewerage system.

Procedures for cleaning / absorption:

Take up with liquid-absorbent and neutralizing material (e.g. Chemisorb® H⁺, Art. No. 101595). Forward for disposal. Clean up affected area.

7. Handling and storage

Handling:

Cannot be stored indefinitely.

No further requirements.

Storage:

Tightly closed. At +15°C to +25°C.

8. Exposure controls/personal protection

Specific control parameter

EC

| | |
|-------|---------------------|
| Name | Hydrogen chloride |
| Value | 5 ml/m ³ |
| | 8 mg/m ³ |

Personal protective equipment:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection: required when vapours/aerosols are generated.

Eye protection: required

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Hand protection:

In full contact:
Glove material: nitrile rubber
Layer thickness: 0.11 mm
Breakthrough time: > 480 Min.

In splash contact:
Glove material: nitrile rubber
Layer thickness: 0.11 mm
Breakthrough time: > 480 Min.

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374, for example KCL 740 Dermatril® (full contact), 740 Dermatril® (splash contact). The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Industrial hygiene:
Change contaminated clothing. Wash hands after working with substance.

9. Physical and chemical properties

| | |
|----------------------|--|
| Form: | liquid |
| Colour: | colourless, slightly yellowish |
| Odour: | odourless |
| pH value | (20 °C) < 1 |
| Melting point | not available |
| Boiling point | not available |
| Ignition temperature | not available |
| Flash point | not available |
| Explosion limits | lower not available upper not available |
| Density | (20 °C) 1.02 g/cm ³ |
| Solubility in water | (20 °C) soluble |

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10. Stability and reactivity

Conditions to be avoided

Heating.

Substances to be avoided

metals (generation of hydrogen).
The generally known reaction partners of water.

Hazardous decomposition products

in the event of fire: See chapter 5.

Further information

unsuitable working materials: metals, metal alloys.

11. Toxicological information

Acute toxicity

LC₅₀ (inhalation, rat): 3124 ppm(V) /1 h (calculated on the pure substance).

Further toxicological information

Property that must be anticipated on the basis from the components of the preparation:

After skin contact: Slight irritations.
After eye contact: Slight irritations.

Further data

The product should be handled with the care usual when dealing with chemicals.

12. Ecological information

Ecotoxic effects:

Quantitative data on the ecological effect of this product are not available.

Further ecologic data:

The following applies to HCl in general: Harmful effect on aquatic organisms. Harmful effect due to pH shift. Biological effects: hydrochloric acid (including such due to reaction): lethal for fish as from 25 mg/l; *Leuciscus idus* LC₅₀: 862 mg/l (1N-solution). Harmful effects begin at: plants 6 mg/l. Does not cause biological oxygen deficit.

Do not allow to enter waters, waste water, or soil!

13. Disposal considerations

Product:

Chemicals must be disposed of in compliance with the respective national regulations. Under www.retrologistik.de you will find country- and substance-specific information as well as contact partners.

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Packaging:

This product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

14. Transport information

Road & Rail ADR, RID

UN 1789 CHLORWASSERSTOFFSAEURE, 8, III

Inland waterway ADN, ADNR not tested

Sea IMDG-Code

UN 1789 HYDROCHLORIC ACID, 8, III

Ems F-A S-B

Air CAO, PAX

HYDROCHLORIC ACID, 8, UN 1789, III

The transport regulations are cited according to international regulations and in the form applicable in Germany. Possible national deviations in other countries are not considered.

15. Regulatory information

Labelling according to EC Directives

Symbol: ---

R-phrases: ---

S-phrases: ---

16. Other information

Text of any R phrases referred to under heading 2:

34 Causes burns.

37 Irritating to respiratory system.

Reason for alteration

Chapter 5: fire-fighting measures.

General update.

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.
