

## HYDROCHLORIC ACID SOLUTION >25% W/W

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product label name** Hydrochloric acid solution (>25%)  
**Supplier** Akzo Nobel Base Chemicals bv  
Stationsplein 4  
PO Box 247  
NL-3800 AE Amersfoort  
Tel.: +31-334676767  
**Emergency telephone** + 31 570679211 (Fax. + 31 570679801)  
Akzo Nobel Chemicals-Deventer-NL  
**Intended use** Chemical intermediate

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

This product is to be considered as a substance in conformance to EC directives  
Information on hazardous ingredients

**Chemical description** Hydrochloric acid solution

#### Composition / information on ingredients

Number	% w/w	CAS-number	Chemical name	
1	> 25%	7647-01-0	Hydrogen chloride	
Number	EC-number	Annex-1 number	Symbol(s)	Risk-phrase(s)
1	231-595-7	017-002-01-X	C	R34 R37

**Other information** Balance: Water

### 3. HAZARDS IDENTIFICATION

Causes burns.

Irritating to respiratory system.

### 4. FIRST AID MEASURES

**Symptoms and effects** Irritating to respiratory system. May cause delayed pulmonary oedema.  
Corrosive to eyes, skin and upper respiratory tract. Causes injury to the cornea and eyelids.

#### First aid

**General** Rinse immediately and as long as possible with plenty of water.  
**Inhalation** Always seek medical advice in case of significant exposure.  
**Skin** Wash immediately with soap and water. In case of skin eruption seek medical advice.  
**Eye** Rinse immediately and as long as possible with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation persists.  
**Ingestion** Only when conscious, rinse mouth, give plenty of water to drink. DO NOT induce vomiting. Seek medical advice.  
Symptomatic treatment is advised.

#### Advice to physician

### 5. FIRE-FIGHTING MEASURES

**Extinguishing media** All media  
**Unsuitable extinguishing media** none known  
**Special exposure hazards** The product reacts with metals with evolution of highly flammable hydrogen.  
**Hazardous decomposition/combustion products** Hydrogen chloride.  
**Protective equipment** In case of insufficient ventilation wear suitable respiratory equipment.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** For personal protection see Section 8.  
**Environmental precautions** Dispose of this material and its container at hazardous or special waste collection point  
**Methods for cleaning up** Neutralize large spillages with lime or soda ash. Rinse remnant with plenty of water.

### 7. HANDLING AND STORAGE

**Handling** The usual precautions for handling chemicals should be observed.  
**Fire and explosion prevention** not (in)flammable  
**Storage requirements** Do not store together with alkalis and oxidants. Keep container tightly closed and in a well-ventilated place. Store in plastic tanks (PVC and polyester).

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Provide adequate ventilation.
Exposure limits	
Name	
Hydrogen chloride	OES-STEL 7.6 mg/m <sup>3</sup>
Personal protection	
Respiratory	Wear acid vapour mask.
Hand	PVC or rubber gloves.
Eye	Use safety eyewear designed to protect against splash of liquids.
Skin and body	Wear suitable protective clothing.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid
Colour	colourless to light yellow
Odour	pungent
Boiling point/range	108 °C ( azeotropic )
Melting point/range	-50 °C
Flash point	not applicable
Flammability	not applicable
Autoignition temperature	not applicable
Explosive properties	not applicable
Explosion limits	not applicable
Oxidizing properties	not applicable
Vapour pressure	21 mBar
Density	>1123 kg/m <sup>3</sup> (20 °C )
Bulk density	not relevant
Solubility in water	Completely miscible
Solubility in other solvents	not available
pH value	<1 ( at 50 g/l water and 20 °C )
Partition coefficient n-octanol/water	not applicable
Relative vapour density (air=1)	not applicable
Viscosity	> 1.5 mPa.s (20 °C )

### 10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage and handling conditions (see section 7).
Conditions to avoid	Reaction with strong oxidizing agents and alkaline materials.
Materials to avoid	The product reacts with metals with evolution of highly flammable hydrogen. The acid reacts violent with alkalies with evolution of heat.
Hazardous decomposition products	Hydrogen chloride / chlorine / hydrogen.

### 11. TOXICOLOGICAL INFORMATION

Name	Hydrogen chloride
Acute toxicity	
Oral LD50	rat: 50-70 mg/kg
Dermal LD50	rabbit: > 5010 mg/kg
Inhalation LC50	gas, rat: 7 mg/l, 0.5 hours
Irritation	
Skin	Corrosive
Eye	Corrosive
Respiratory	irritant
Sensitization	Not sensitizing ( guinea pig )
Genotoxicity	Not mutagenic, not clastogenic
Other toxicological information	not carcinogenic

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### 12. ECOLOGICAL INFORMATION

Name	Hydrogen chloride
Ecotoxicity fish	Acute toxicity, 96h-LC50 at pH 3.25 - 3.5 (Lepomis macrochirus)

### 13. DISPOSAL CONSIDERATIONS

Product	According to local regulations.
Contaminated packaging	According to local regulations.
Other information	For further advice contact manufacturer.

### 14. TRANSPORT INFORMATION

#### Land transport (ADR/ RID)

ADR class	8	ADR Classification Code	C1
RID class	8	ADR/RID packing group	II
Hazard Identification No.	80	Substance Identification No.	1789
TREM-Card	CEFIC TEC(R)- 80GC1-II+III	UN number	1789
Proper Shipping Name	Hydrochloric acid, solution		
Other information	Transport label(s): 8		

#### Sea transport (IMDG-code/ IMO)

IMO/IMDG code		Class	8
Packing group	II	UN number	1789
EMS	F-A,S-B	Subsidiary Risk	-
Marine pollutant	no		
Proper Shipping Name	Hydrochloric acid, solution		
Other information	Transport label(s): 8		

#### Air transport (ICAO-TI/ IATA-DGR)

ICAO-TI/IATA-DGR		UN number	1789
Class	8	Packing group	II
Proper Shipping Name	Hydrochloric acid, solution		

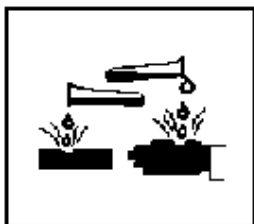
### 15. REGULATORY INFORMATION

Chemical description Hydrochloric acid solution (>25%)

Labelling according to EC directives

EC-number See section 2

Classification based on Annex-1



Symbol(s) CORROSIVE (C)

R(isk) phrase(s) R34 : Causes burns  
R37 : Irritating to respiratory system

S(afety) phrase(s) S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

**SAFETY DATA SHEET**  
According to EC-directive 2001/58/EC

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### **16. OTHER INFORMATION**

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This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

#### **R-pharse information**

<b>Chemical name</b>	<b>Risk-phrase(s)</b>	
Hydrogen chloride	R34 R37	Causes burns Irritating to respiratory system

#### **History**

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<b>Composed by</b>	Dr. P. Thomas M.M. Remmerswaal
<b>Changes were made in section</b>	1, 2