

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Chemetall

Hydrochloric Acid 32%

Version 2.0

Revision Date 09.12.2010

Print Date 09.12.2010

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

1.1 Product identifier

Trade name : Hydrochloric Acid 32%

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub-
stance/Mixture : Reagent

Recommended restrictions
on use : None known.

1.3 Details of the supplier of the safety data sheet

Company : Chemetall Ltd
Denbigh Road
Bletchley Milton Keynes MK1 1PB

Lead Organisation :
Contact person :
Telephone : 01908 649333
Telefax : 01908 373939

Product safety :
Telephone : +44(0)1908 649333
E-mail address : ukinfo@chemetall.com

1.4 Emergency telephone number

Emergency telephone
number : 01908 649333

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Category 1B	H314: Causes severe skin burns and eye damage.
Specific target organ toxicity - single exposure, Category 3	H335: May cause respiratory irritation.

Classification (67/548/EEC, 1999/45/EC)

Corrosive R34: Causes burns.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation.
Precautionary statements	:	Prevention: P262 Do not get in eyes, on skin, or on clothing. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 Call a POISON CENTER or doctor/ physician if you feel unwell. Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

- 7647-01-0 Hydrochloric acid

Labelling according to EC Directives (1999/45/EC)

Hazard pictograms	:	
		Corrosive
R-phrase(s)	:	R34 Causes burns. R37 Irritating to respiratory system.
S-phrase(s)	:	S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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This material and its container must be disposed of as hazardous waste.

Hazardous components which must be listed on the label:

- 7647-01-0 Hydrochloric acid

2.3 Other hazards

The information required is contained in this Material Safety Data Sheet.

3. Composition/information on ingredients

3.1 Substances

Identification: Hydrochloric Acid 32%

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Hydrochloric acid	7647-01-0 231-595-7	C; R34 Xi; R37 Nota B	Skin Corr. 1B; H314 STOT SE 3; H335	>= 25 - < 50

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

For the full text of the Notas mentioned in this Section, see Section 16.

4. First aid measures

4.1 Description of first aid measures

- General advice : Take off contaminated clothing and shoes immediately.
First-aid crew: Ensure self-protection.
Move out of dangerous area.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Call a physician immediately.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Call a physician immediately.

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If swallowed : Rinse mouth with water.
Immediately give large quantities of water to drink.
Do NOT induce vomiting.
Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Erythema
Blistering
Pain

Risks : corrosive effects

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.
For specialist advice physicians should contact the Poisons
Information Service.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting : Hydrogen chloride gas

5.3 Advice for firefighters

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Ensure adequate ventilation.
Wear personal protective equipment.
Evacuate personnel to safe areas.

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6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Ensure adequate ventilation.
Soak up with liquid binder (sand, kieselguhr, acid binder, universal binder).
Sweep up and shovel into suitable containers for disposal.

6.4 Reference to other sections

See chapter 8 and 13

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.
Have eye wash bottle or eye rinse ready at the work place.
Avoid contact with skin and eyes.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store at room temperature in the original container.
Keep containers tightly closed in a cool, well-ventilated place.

Further information on storage conditions : Avoid contact with metals.

7.3 Specific end uses

Specific use(s) : Reagent

8. Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Hydrochloric acid	7647-01-0	TWA	5 ppm 8 mg/m ³	2000-06-16	2000/39/EC
Further information	:	Indicative			

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		STEL	10 ppm 15 mg/m ³	2000-06-16	2000/39/EC
Further information	:	Indicative			
		TWA	1 ppm 2 mg/m ³	2005-04-06	GB EH40
		STEL	5 ppm 8 mg/m ³	2005-04-06	GB EH40

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
 Recommended Filter type:
 B-P2
- Hand protection : Viton (R)
 Protective gloves complying with EN 374.
 The exact break through time can be obtained from the protective glove producer and this has to be observed.
 Protective gloves have to be replaced at the first sign of deterioration.
- Eye protection : Tightly fitting safety goggles
 Eye protection (EN 166)
- Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)
- Hygiene measures : Do not breathe spray.
 Take off contaminated clothing and shoes immediately.
 Avoid contact with the skin and the eyes.
 Keep away from food, drink and animal feedingstuffs.
 Wash hands before breaks and immediately after handling the product.
- Protective measures : Handle in accordance with good industrial hygiene and safety practice.

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Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid
Colour : colourless
Odour : pungent
irritating
Flash point : not applicable
pH : < 1
Melting point/range : -67 - -33 °C
Boiling point/boiling range : ca. 80 °C
Vapour pressure : ca.30 hPa
at 20 °C
Density : 1.14 - 1.18 g/cm³
Water solubility : completely miscible

9.2 Other information

Explosivity : Gives off hydrogen by reaction with metals.

10. Stability and reactivity

10.1 Reactivity

Potential for exothermic hazard, Reacts violently with water.

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10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Gives off hydrogen by reaction with metals.
Reactions with strong acids and oxidising agents.

10.4 Conditions to avoid

Conditions to avoid : To avoid thermal decomposition, do not overheat.

10.5 Incompatible materials

Materials to avoid : Bases
Metals
Strong acids and oxidizing agents

10.6 Hazardous decomposition products

Risk of decomposition. : Hydrogen chloride.
Chlorine (toxic).

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity : no data available

Skin corrosion/irritation

Skin irritation : Causes burns.

Serious eye damage/eye irritation

Eye irritation : Causes burns.

Respiratory or skin sensitization

Sensitisation : no data available

Further information

: Irritating to respiratory system.
Ingestion of aqueous solution causes gastrointestinal burns.

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12. Ecological information

12.1 Toxicity

Toxicity to fish : no data available

12.2 Persistence and degradability

Biodegradability : no data available

12.3 Bioaccumulative potential

Bioaccumulation : no data available

12.4 Mobility in soil

Mobility : no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Chemical Oxygen Demand (COD) : 0 mg/g

Additional ecological information : Do not flush into surface water or sanitary sewer system. slightly water endangering

13. Disposal considerations

13.1 Waste treatment methods

Product : Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging : Dispose of as hazardous waste in compliance with local and national regulations.

Waste Code : 060102 hydrochloric acid

14. Transport information

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ADR

UN number : 1789
UN proper shipping name : HYDROCHLORIC ACID
Transport hazard class(es) : 8
Packing group : II
Classification Code : C1
Hazard identification No : 80
Packing instruction (LQ) : LQ22
Labels : 8
Tunnel restriction code : (E),
Environmentally hazardous : no

IATA

UN number : 1789
Description of the goods : HYDROCHLORIC ACID
Class : 8
Packing group : II
Labels : 8

Packing instruction (cargo aircraft) : 813

IATA_C

Environmentally hazardous : no

Packing instruction (passenger aircraft) : 809

IATA_P

Environmentally hazardous : no

IMDG

UN number : 1789
Description of the goods : HYDROCHLORIC ACID
Class : 8
Packing group : II
Labels : 8
EmS Number 1 : F-A
EmS Number 2 : S-B
Marine pollutant : no

RID

UN number : 1789
Description of the goods : HYDROCHLORIC ACID
Transport hazard class(es) : 8
Packing group : II
Classification Code : C1
Hazard identification No : 80
Labels : 8
Packing instruction (LQ) : LQ22
Environmentally hazardous : no

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15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Water contaminating class (Germany) : WGK 1 slightly water endangering
VWVWS A4

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.
Regional or national implementations of GHS may not implement all hazard classes and categories.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R34 Causes burns.
R37 Irritating to respiratory system.

Full text of H-Statements referred to under sections 2 and 3.

H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Full text of Notas referred to under section 3

Nota B Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different labelling since the hazards vary at different concentrations. In Annex I entries with Note B have a general designation of the following type: nitric acid ...%. In this case the manufacturer or any other person who markets such a substance in aqueous solution must state the percentage concentration of the solution on the label. Example: nitric acid 45 %. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis. The use of additional data (e.g. specific gravity, degrees Baumé) or descriptive phrases (e.g. fuming or glacial) is permissible.

Further information

The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant

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rules and regulations concerning this product.