

CENTRAL CHEMICAL SUPPLIES LTD

SAFETY DATA SHEET HYDROCHLORIC ACID 10-25%

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

GHS Product Identifier HYDROCHLORIC ACID, CONCENTRATED (10-25% Solution)

EC INDEX No. 017-002-01-X

Alternative names Aqueous hydrogen chloride, 25/36 % Hydrochloric acid, Muriatic acid ,
Hydrochloric acid solution

REACH Registration No. 01-2119484862-27-XXXX

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

Identified use(s) Chemical intermediate, washing and cleaning agent, pH regulating agent,
laboratory chemical

Uses advised against None

1.3 Details of the supplier of the safety data sheet

Supplier: Central Chemical Supplies Ltd
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SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Directive 67/548/EEC & Directive 1999/45/EC

IRRITANT : Xi

R36/37/38: Irritating to eyes, respiratory system and skin..

Regulation (EC) No. 1272/2008 (CLP)

Skin Irrit. 2

Eye Irrit. 2

STOT SE 3

Met. Corr. 1

2.2 Label elements

Hazard Statements

H315: Causes skin irritation.

H319: Causes serious eye irritation

H335: May cause respiratory irritation.
H290: May be corrosive to metals.

Signal word(s) WARNING

Hazard pictogram(s)



Precautionary statement(s)

P261: Avoid breathing mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352: IF ON SKIN: Wash with plenty of soap and water .

P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Additional label requirements

None

2.3 Other hazards

SECTION 3: COMPOSITION /INFORMATION ON INGREDIENTS

3.1 Substances

Hazardous ingredient(s)	%(w/w)	CAS No.	EC No.	H - Codes
Hydrochloric acid	10-25%	007647-01-0	231-595-7	H290, H315, H335, H319

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation Remove patient from exposure, keep warm and at rest. Administer oxygen if necessary. Apply artificial respiration if breathing has ceased or shows signs of failing. During resuscitation, care must be taken to avoid contamination by the substance from the patient.

Skin Contact SPEED IS ESSENTIAL. Drench with large quantities of water. Remove contaminated clothing. Continue to wash the affected area for at least 10 minutes.

Eye Contact SPEED IS ESSENTIAL. Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes.

Ingestion Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation. Causes serious eye irritation.

May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

SPEED IS ESSENTIAL. OBTAIN IMMEDIATE MEDICAL ATTENTION.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Mist or vapour will cause irritation to the upper respiratory tract, coughing and choking sensation. Concentrations of 50-100ppm are barely tolerated for up to 1 hour. Higher concentrations may cause corrosion of the respiratory tract.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media As appropriate for surrounding fire. Water spray should be used to cool containers.

Unsuitable Extinguishing Media As appropriate for surrounding fire.

5.2 Special hazards arising from the substance or mixture

Non-combustible. Containers may burst if overheated.

Can react with most common metals to produce hydrogen which can form explosive mixtures with air.

5.3 Advice for fire fighters

A self contained breathing apparatus and suitable protective clothing must be worn in fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure full personal protection (including respiratory protection) during removal of spillages.

6.2 Environmental precautions

Avoid release to the environment. Prevent liquid entering sewers, basements and any watercourses.

6.3 Methods and material for containment and cleaning up

Stop leak if safe to do so. Contain spillages.

Small spillages: Neutralise small spillages with decontaminant. Wash the spillage area with water.

Large spillages: Neutralise with lime or soda ash before disposal.

6.4 Reference to other sections

See Section: 8, 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of mists/fumes. Provide adequate ventilation.

Atmospheric levels must be controlled in compliance with the workplace exposure limit.

Showers and eye washing equipment must be provided at handling points. Good hygiene practices and housekeeping measures.

7.2 Conditions for safe storage, including any incompatibilities

Bulk quantities should be stored in rubber lined steel or suitable plastic equipment.

Keep smaller quantities in suitable plastic or glass containers. May be corrosive to metals.

Keep container in a well-ventilated place.

7.3 Specific end use(s)

None

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

HAZARDOUS INGREDIENT(S)	CAS No.	LTEL 8 hr TWA ppm	LTEL 8 hr TWA mg/m3	STEL ppm	STEL mg/m3	Note:
Hydrogen Chloride (gas and aerosol mists)	007647-01-0	1	2	5	8	WEL

DNEL	oral	Inhalation	Dermal
Industry - Long Term - Local effects	-	8 mg/m ³	-
Industry - Long Term - Systemic effects	-	-	-
Industry - Short term - Local effects	-	15 mg/m ³	-
Industry - Short term - Systemic effects	-	-	-
Consumer. - Long Term - Local effects	-	-	-
Consumer. - Long Term - Systemic effects	-	-	-
Consumer. - Short term - Local effects	-	-	-
Consumer. - Short term - Systemic effects	-	-	-

Environment	PNEC
Aquatic Compartment (including sediment)	36 µg/l (Marine water) 36 µg/l (Fresh water) 45 µg/l (Intermittent releases) 36 µg/l sewage treatment plant
Terrestrial Compartment	-
Atmospheric Compartment	-

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction, to ensure that the occupational exposure limit is not exceeded. Atmospheric levels should be controlled in compliance with the occupational exposure limit.

Personal Protection

Eye/face protection Wear close fitting goggles or full face shield.

Skin protection Goggles or full face shield, acid resistant gloves and footwear are essential.

The following materials are suitable for protective gloves: Polychloroprene CR (0.5 mm), Nitrile rubber (0.35 mm), Butyl rubber (0.5 mm), Fluorocarbon rubber (0.4 mm), Poly(vinyl chloride) PVC (0.5 mm), Check with protective equipment manufacturer's data.

Respiratory protection Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely. Where a cartridge/canister respirator is suitable use: Type E (EN 141) Check with protective equipment manufacturer's data.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form Fuming liquid.

Colour almost colourless to pale yellow

Odour characteristically pungent

Boiling Point (Deg C) 108 (20%)

Vapour Pressure (mm Hg) 11 (28%) at 20 Deg C

Solubility (Water) soluble

Freezing Point (Deg C) -55 (20%)
Density (g/ml) 1.10 (20%) at 20 Deg C

9.2 Other information

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Strong mineral acid. Reacts with - strong oxidising agents, alkalis

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Attacks most common metals liberating hydrogen, which can form explosive mixtures with air. Can react violently if in contact with oxidising agents, liberating chlorine. Exothermic reaction with alkalis .

10.4 Conditions to avoid

Skin Contact Aerosol or mist formation

10.5 Incompatible materials

Attacks many metals.

10.6 Hazardous decomposition products

Hydrogen chloride , chlorine , hydrogen

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Test result / data

Acute oral toxicity No LD50 available. Will immediately cause corrosion of and damage to the gastrointestinal tract.

Acute inhalation toxicity No LC50 (4 hour) available

LC50 rat (5 min exposure to aerosol of aqueous solution) 45.6 mg/l

LC50 rat (30 min exposure to aerosol of aqueous solution) 8.3 mg/l

Acute dermal toxicity No LD50 available. The corrosive nature of the substance will predominate.

Skin irritation. Causes skin irritation.

Serious eye damage/irritation Causes severe eye damage.

Respiratory irritation Hydrochloric acid vapour / mist will cause severe irritation to the upper respiratory tract.

Sensitisation Hydrochloric acid is not a skin sensitiser.

Repeated dose toxicity Repeated exposure to hydrochloric acid causes local corrosion or irritancy (of the gastrointestinal tract, skin, eyes or respiratory tract) but will have no effect on systemic toxicity. Repeated exposure may also cause erosion of the teeth and ulceration of the nasal septum and gums.

Germ cell mutagenicity On the basis of a weight of evidence approach, hydrochloric acid should not be classified as genotoxic as the majority of the relevant in-vitro and in-vivo mutagenicity studies were negative.

Carcinogenicity Hydrochloric acid has been shown not to be carcinogenic in animal studies.

Reproductive toxicity There is no evidence from animal studies that hydrochloric acid has any adverse effects on development or fertility.

Specific target organ toxicity — single exposure (STOT SE) Mist or vapour will cause irritation or corrosion to the upper respiratory tract, coughing and a choking sensation.

Specific target organ toxicity — repeated exposure (STOT RE) Not classified

Aspiration hazard Not an aspiration hazard

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Large discharges may contribute to the acidification of water and be fatal to fish and other aquatic life.

Can cause severe damage to aquatic plants.

Acute aquatic toxicity

Fish Fresh water LC50 (96 hour) 20.5 mg/l

Aquatic invertebrates: Fresh water EC50 (48 hour) (Daphnia magna) 0.45 mg/l

Algae Fresh water EC50 (72 hour) 0.73 mg/l

12.2 Persistence and degradability

Will freely dissociate to hydrogen and chloride ions.

12.3 Bio accumulative potential

Hydrochloric acid does not bioaccumulate (log Kow - 2.65)

12.4 Mobility in soil

The product is predicted to have high mobility in soil.

12.5 Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

12.6 Other adverse effects

Can cause damage to vegetation

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Do not release undiluted and unneutralised to the sewer. Do not landfill unneutralised waste. Disposal of the neutralised waste at a licensed landfill site may be permissible. Consult an accredited waste disposal contractor or the local authority for advice.

Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

14.1 Road/Rail

UN No. 1789

Proper Shipping Name Hydrochloric acid

ADR/RID Class 8

Packing Group III

Label. 8

Tunnel Restriction Code (E)

14.2 SEA (IMDG)

UN No. 1789

Proper Shipping Name Hydrochloric acid

IMDG Class 8

Packing Group II

Label. 8

Marine Pollutant Not classified as a Marine Pollutant.

14.3 Air (ICAO/IATA)

UN No. 1789

Proper Shipping Name Hydrochloric acid

ICAO-TI Class 8

Packing Group III

Label. 8

14.4 Additional Information

None

SECTION 15: REGULATORY INFORMATION

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

Control of Substances Hazardous to Health Regulations (COSHH) 2002 SI 2002/2677 and COSHH Essentials: Easy steps to control chemicals - Control of Substances Hazardous to Health Regulations HSG193.

Inventory Status

Listed in: European Union (EINECS/ELINCS) United States (TSCA) China (IECSC) Philippines (PICCS) Australia (AICS) Canada (DSL/NDSL) Japan (ENCS) New Zealand Inventory (NZIoC) South Korea (KECI)

15.2 Chemical Safety Assessment

A Chemical Safety Assessment (CSA) has been completed for this substance.

SECTION 16: OTHER INFORMATION

Issued by

Quality Control

Disclaimer

The information contained in this document is intended to describe the product only in terms of health, safety and environmental requirements for the purposes of its safe handling, use and disposal and is to the best of Central Chemical Supplies Limited knowledge and belief correct. Central Chemical Supplies Limited Technical Services will be pleased to give further advice and assistance, but customers must satisfy themselves (by appropriate testing if necessary) that the product is suitable for their purposes and conditions of use and that their facilities and arrangements are suitable for handling or using the product. Accordingly Central Chemical Supplies Limited disclaims any liability for loss, injury or damage which may result from the use of the product, this information or from such advice and assistance save as may be expressly agreed under its terms of sale.

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