



Mining Chemicals SA

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Material Safety Data Sheets (MSDS)

Hydrochloric Acid 32%

Identification of Product

Chemical Code: CHE-H

Chemical Name: Hydrochloric Acid 32%

Chemical Grade: TECHNICAL

Chemical Formula: HCl

Chemical Weight: 36,46 g/mol

CAS No: 7647-01-0

Chemical Synonyms: Chlorohydric acid,
Muriatic acid.

Hazards Identification

REACH No: 01-2119484862-27-XXXX

Signal Word: Danger

Supplemental Hazard Information:

Additional Hazard Information: This substance contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.



Hazards statements

H290 - May be corrosive to metals.

H314 - Causes severe skin burns and eye damage.

H335 - May cause respiratory irritation.

Precautionary statements

P261 - Avoid breathing vapours.

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

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

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

P310 - Immediately call a POISON CENTER or doctor/ physician.

Composition of Chemical

Chemical Formula: HCl

EC No 1272/2008: 01-2119484862-27-XXXX

First Aid Measures

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

If: Inhaled: Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

If: Skin Contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

If: Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician

If: Swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Important Symptoms: The most important known symptoms and effects are described in the labeling section

Immediate Medical Attention: No Data Available

Firefighting Measures

Extinguishing Media: Use Water spray, Alcohol-resistant foam, Dry chemical or Carbon Dioxide.

Hazards Arising: Hydrogen Chloride Gas

Advice for Firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

Info for Firefighting: No Data Available

Accidental Release Measures

Personal Precautions: Wear respiratory protection.

Avoid breathing vapours, mist or gas.

Ensure adequate ventilation.

Evacuate personnel to safe areas.

Environmental Precautions: Do not let product enter drains

Method for Containment: Soak up with inert absorbent material and dispose of as hazardous waste.

Keep in suitable, closed containers for disposal.

Handling and Storage

Personal Precautions: Avoid contact with skin and eyes.

Avoid inhalation of vapour or mist.

Environmental Precautions: Store in cool place.

Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Exposure Controls | Personal Protection

Derived No Effect Level (DNEL)

Workers | Application Area | Exposure Routes | Health Effect | Value

No Data Available

Consumers | Application Area | Exposure Routes | Health Effect | Value

No Data Available

Predicted No Effect Concentration (PNEC)

No Data Available

Engineering Controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Eye/Face Protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact -

Material: Nitrile rubber. Minimum layer thickness: 0,4 mm

Break through time: 480 min. Material tested: Camatril®

Splash contact -

Material: Nitrile rubber. Minimum layer thickness: 0,11 mm

Break through time: 120 min. Material tested: Dermatril®

Data source: KCL GmbH, D-36124. Test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Physical and Chemical Properties

Appearance: Clear to slightly Yellowish liquid

Odour: No Data Available

Odour Threshold: No Data Available

pH: No Data Available

Melting Point: No Data Available

Boiling Point: 100 °C

Flash Point: No Data Available

Evaporation: No Data Available

Flammability: No Data Available

Upper/Lower Flammability or Explosive Limits: No Data Available

Vapour pressure: No Data Available

Vapour density: No Data Available

Relative density: 1,1605 g/cm³

Water solubility: Miscible

Partition Coefficient: No Data Available

Auto-ignition Temperature: No Data Available

Decomposition Temperature: No Data Available

Viscosity: No Data Available

Explosive properties: No Data Available

Oxidizing properties: No Data Available

Other Safety Info: No Data Available

Stability and Reactivity

Reactivity: No Data Available

Chemical Stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No Data Available

Conditions to Avoid: No Data Available

Incompatible Materials: Bases, Amines, Alkali Metals, Metals, Permanganates (e.g. Potassium Permanganate), Fluorine, Metal Acetylides, Hexalithium Disilicide

Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions - Hydrogen Chloride gas

Toxicological Information

Acute Toxicity: Inhalation: Cough, Difficulty in breathing

LCLo Inhalation - Human - 30 min - 1.970 mg/m³ (Hydrochloric Acid)

Remarks: (RTECS)

Inhalation: absorption

Skin Corrosion/Irritation: Reconstructed human epidermis (RhE) -

Result: Corrosive

(OECD Test Guideline 431)

Serious Eye damage | Eye Irritation: Bovine cornea -

Result: Corrosive (OECD Test Guideline 437)

Cell Mutagenicity: Chromosome aberration test in vitro :

Chinese hamster ovary cells -

Result: Conflicting results have been seen in different studies.

Carcinogenicity: Carcinogenicity - Did not show carcinogenic effects in animal experiments. (IUCLID).

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: No Data Available

Specific Target Organ Toxicity - Single Exposure: Acute inhalation toxicity - Mucosal irritations, Cough, Shortness of breath.

Inhalation may lead to the formation of oedemas in the respiratory tract.

Possible damages: damage of respiratory tract, tissue damage.

Specific Target Organ Toxicity - Repeated Exposure: No Data Available

Aspiration Hazard: No Data Available

Ecological Information

Ecological Toxicity: Toxicity to fish:

LC50 - *Gambusia affinis* (Mosquito fish) - 282 mg/l - 96 h

Ecological Persistence and degradability: No Data Available

Bioaccumulative Potential: No Data Available

Mobility in Soil: No Data Available

Results of PBT and vPvB Assessment: This substance contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.

Other Adverse Effect: May be harmful to aquatic organisms due to the shift of the pH.

Do not empty into drains.

Harmful effect due to pH shift.

Discharge into the environment must be avoided.

Disposal Considerations

Waste Treatment Methods: Product -

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging - Dispose of as unused product.

Transport Information

UN Number: ADR/RID: 1789

IMDG: 1789

IATA: 1789

UN Shipping Hazard: ADR/RID: HYDROCHLORIC ACID

IMDG: HYDROCHLORIC ACID

IATA: Hydrochloric Acid

Transport Hazard Class: ADR/RID: 8

IMDG: 8

IATA: 8

Packaging Group: ADR/RID: II

IMDG: II

IATA: II

Environmental Hazards: ADR/RID: no

IMDG Marine pollutant: no

IATA: no

Special Precautions: No Data Available

Regulatory Information

Safety, Health and environmental regulations: This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Chemical Safety Assessment: For this product a chemical safety assessment was not carried out

Additional Info: RTECS: MW4025000

Inhalation of vapors may cause:

Burning sensation, Cough, Wheezing, Laryngitis, Shortness of breath.

Spasm, Inflammation and Edema of the Larynx.

Spasm, Inflammation and Edema of the Bronchi.

Pneumonitis, Pulmonary Edema.

After uptake of large quantities:

Cyanosis, Circulatory collapse, Respiratory arrest.

Systemic effects: Rise in blood pressure, Bradycardia.

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Disclaimer

The information stated above is considered to be correct, but does not claim to be inclusive and shall only be used as a guideline. The information provided by this document is confirmed by our continuous updating of knowledge and adheres to the products appropriate safety precautions. It does not represent any guarantee of the product's properties. MCS Chemicals and its Associates shall not be held accountable for any damage's consequent of handling the above product.
