



# Gujarat Alkalies and Chemicals Ltd.

## Vadodara

SECTION 1: Product and Company Identification			
<b>Name</b>	<b>HYDROCHLORIC ACID</b>		
<b>Company</b>	M/s Gujarat Alkalies and Chemicals Limited, P.O. Petrochemicals, Dist.: - Vadodara, Gujarat (India), Pin Code: 391346		
<b>Synonyms</b>	Muriatic Acid, Hydrogen chloride, Chlorohydric acid; Hydrogen chloride in aqueous solution.		
<b>Emergency Contact Details</b>	Phone no.	09979897101, 09879604102	
	E-mail	headmarketing@gacl.co.in ccr@gacl.co.in	
SECTION 2: Hazards Identification			
<b>Emergency Overview</b>			
		Causes eye and skin burns. Causes digestive and respiratory tract burns. May be fatal if inhaled or swallowed. Repeated or prolonged exposure may cause erosion of exposed teeth. Corrosive to metal. <b>Target Organs:</b> Respiratory system, gastrointestinal system, teeth, eyes, skin.	
<b>Potential Health Effects</b>			
<b>Inhalation</b>	May be fatal if inhaled. May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Causes chemical burns to the respiratory tract. Causes corrosive action on the mucous membranes.		
<b>Skin</b>	Contact with liquid is corrosive and causes severe burns and ulceration. The severity of injury depends on the concentration of the solution and the duration of exposure.		
<b>Eyes</b>	May cause irreversible eye injury. Vapour or mist may cause irritation and severe burns. Contact with liquid is corrosive to the eyes and causes severe burns.		
<b>Ingestion</b>	Causes severe digestive tract burns with abdominal pain, vomiting, and possible death. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract.		
<b>Disposal</b>	Dispose of contents/container to an approved waste disposal plant		
SECTION 3: Composition/information on ingredients			
Component	CAS-No.	EC-No.	Weight %
Hydrogen chloride	7647-01-0	231-595-7	~30 - 32%
Water	7732-18-5	215-185-5	~68-70%

SECTION 4: First Aid Measures			
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required		
<b>Skin</b>	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.		
<b>Eyes</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.		
<b>Ingestion</b>	If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.		
<b>Most important symptoms/effects</b>	Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.		
<b>Notes to Physician</b>	Treat symptomatically.		
SECTION 5: Fire Fighting Measures			
<b>Suitable Extinguishing Media</b>	Substance is non-flammable; use agent most appropriate to extinguish surrounding fire.		
<b>Flash Point</b>	Not applicable	<b>Explosion Limits</b>	
<b>Auto ignition Temperature</b>	No data available	<b>Upper</b>	No data available
		<b>Lower</b>	No data available
<b>Hazardous Combustion Products</b>	Hydrogen chloride gas		
<b>Specific Hazards Arising from the Chemical</b>	Corrosive Material. Causes burns by all exposure routes. Thermal decomposition can lead to release of irritating gases and vapours.		
<b>NFPA:</b>	<b>Health: 3</b>	<b>Flammability: 0</b>	<b>Reactivity: 0</b>
			<b>Special hazards: ACID</b>
SECTION 6: Accidental Release Measures			
<b>Personal Precautions</b>	Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not get in eyes, on skin, or on clothing.		
<b>Environmental precautions</b>	Prevent waste from contaminating the surrounding environment. Prevent soil and water pollution. Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.		
<b>Methods and materials for containment and cleaning up</b>	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.		
SECTION 7: Handling and Storage			
<b>Handling</b>	Do not breathe gas/vapour. Avoid all contact with skin, eyes, or clothing. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.		

<b>Storage</b>	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Contents under pressure. Storage class: Liquid
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### SECTION 8: Exposure Controls/Personal Protection

<b>Exposure Guidelines:</b>		
<b>Component</b>	<b>OSHA PEL</b>	<b>ACGIH TWA</b>
Hydrochloric acid	Ceiling: 5 ppm	Ceiling: 2 ppm
<b>Engineering Measures</b>	Ensure that eyewash stations and safety showers are close to the workstation location. Local exhaust ventilation and fumes blower provided to control acid fumes exposure.	
<b>Personal Protective Equipment</b>		
<b>Eye/face Protection</b>	Wear chemical splash goggles and face shield.	
<b>Skin and body protection</b>	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.	
<b>Respiratory Protection</b>	Where risk assessment shows air-purifying respirators are appropriate use respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards	

### SECTION 9: Physical and Chemical Properties

<b>Appearance</b>	Liquid	<b>Water solubility</b>	Soluble in water
<b>Odour</b>	Pungent, Irritating (Strong)	<b>Auto-ignition temperature</b>	Not available
<b>pH</b>	< 1	<b>Viscosity</b>	1.8 mPa.s @ 15°C
<b>Melting point/freezing point</b>	-35 °C	<b>Flammability (solid, gas)</b>	No data available
<b>Initial boiling point and boiling range</b>	57 °C @ 760 mmHg	<b>Decomposition temperature</b>	No data available
<b>Vapour pressure</b>	84 mm Hg @ 20 °C	<b>Relative density</b>	1.2 g/cm <sup>3</sup> @ 25 °C
<b>Vapour density</b>	1.27 (Air = 1)	<b>Oxidizing properties</b>	The substance is not classified as oxidizing.

### SECTION 10: Stability and Reactivity

<b>Reactive Hazard</b>	None known, based on information available
<b>Stability</b>	Stable under recommended storage conditions
<b>Conditions to Avoid</b>	Incompatible products. Excess heat.
<b>Incompatible Materials</b>	Metals, Strong oxidizing agents, Bases, sodium hypochlorite, Amines, Fluorine, Cyanides, Alkaline.
<b>Hazardous Decomposition Products</b>	Hydrogen chloride gas
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.

<b>Hazardous Reactions</b>	Contact with metals may evolve flammable hydrogen gas.
<b>SECTION 11: Toxicological Information</b>	
<b>Acute toxicity</b>	LD <sub>50</sub> 238 - 277 mg/kg (Rat)
<b>Carcinogenicity</b>	ACGIH - Not listed, OSHA - Not listed
<b>SECTION 12: Ecological Information</b>	
<b>Eco toxicity</b>	<b>Freshwater Fish</b> -282 mg/L LC <sub>50</sub> 96 h <i>Gambusia affinis</i> , mg/L LC <sub>50</sub> 48 h <i>Leuciscus idus</i> <b>Water Flea</b> -56mg/L EC <sub>50</sub> 72h <i>Daphni</i>
<b>Other</b>	Very toxic to aquatic life.
<b>SECTION 13: Disposal Considerations</b>	
<b>Waste treatment methods</b>	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.
<b>Product</b>	Burn in a chemical incinerator equipped with an afterburner and scrubber highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal facility.
<b>Contaminated packaging</b>	Dispose of as unused product.
<b>SECTION 14: Transport Information</b>	
<b>UN number</b>	1789
<b>UN proper shipping name</b>	HYDROCHLORIC ACID
<b>Transport hazard class</b>	Class 8: Corrosive material
<b>Packaging group</b>	II
<b>Environmental hazards</b>	No
<b>SECTION 15: Regulatory Information</b>	
<b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
This safety datasheet complies with the requirements of Regulation.	
<b>SECTION 16: Other Information</b>	
<p>Disclaimer</p> <p>The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.</p>	