



Gujarat Alkalies and Chemicals Ltd.

Vadodara

SECTION 1: Product and Company Identification			
Name	CHLORINE		
Company	M/s Gujarat Alkalies and Chemicals Limited, P.O. Petrochemicals, Dist.: - Vadodara, Gujarat (India), Pin Code: 391346		
Synonyms	None		
Emergency Contact Details	Phone no.	09979897101, 09879604102	
	E-mail	headmarketing@gacl.co.in ccr@gacl.co.in	
SECTION 2: Hazards Identification			
Emergency Overview			
		<p>Danger, May cause or intensify fire; oxidizer. Contains gas under pressure; may explode if heated. May cause frostbite. Fatal if inhaled. Causes severe skin burns and eye damage. Corrosive to respiratory tract. Very toxic to aquatic life.</p>	
Potential Health Effects			
Inhalation	Overexposure to concentrations moderately above the Threshold Limit Value (TLV) of 0.5 ppm irritates the eyes and respiratory tract. Very brief exposure to a concentration of 1000 ppm may be fatal. Acts as asphyxiate at high concentrations. Inhalation of high concentrations (e.g., greater than 15 ppm) causes choking, coughing, burning of the throat and severe irritation of the upper respiratory tract; additionally, pulmonary edema, bronchitis, and pneumonitis may result. Lack of oxygen can kill.		
Skin	May severely irritate the skin, causing ulceration, chemical burns, and scarring. Repeated exposure may produce dermatitis. With prolonged or widespread contact, the skin may absorb potentially harmful amounts of material.		
Eyes	May severely inflame the conjunctiva, injuring the lens, and causing corneal opacity and iris atrophy.		
Ingestion	As similar to inhalation due to gases form.		
Disposal	Dispose of contents/container to an approved waste disposal plant		
SECTION 3: Composition/information on ingredients			
Component	CAS-No.	EC-No.	Weight %
Chlorine	7782-50-5	231-959-5	> 99 %

SECTION 4: First Aid Measures			
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.		
Skin	Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.		
Eyes	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.		
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. refer to the inhalation section.		
Most important symptoms/effects	Cause skin irritation, Cause serious eye irritation, toxic if inhaled, may cause respiratory irritation, very toxic to aquatic life.		
Notes to Physician	Treat symptomatically and supportively.		
SECTION 5: Fire Fighting Measures			
Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.		
Flash Point	No data available	Explosive Limits	
Auto ignition Temperature	No data available	Upper	No data available
		Lower	No data available
Hazardous Combustion Products	Decomposition products may include the following materials: halogenated compounds.		
Specific Hazards Arising from the Chemical	Contains gas under pressure. Oxidizing material. This material increases the risk of fire and may aid combustion. Contact with combustible material may cause fire. In a fire or if heated, a pressure increase will occur and the container may burst or explode. This material is very toxic to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.		
NFPA: Health: 3 Flammability: 0 Reactivity: 0 Special hazards: NA			
SECTION 6: Accidental Release Measures			
Personal Precautions	Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.		
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.		
Methods and materials for containment and cleaning up	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations		

SECTION 7: Handling and Storage			
Handling	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking.		
Storage	Store in cool place. Keep container tightly closed in a dry and well-ventilated place.		
SECTION 8: Exposure Controls/Personal Protection			
Exposure Guidelines:			
Component	OSHA PEL	ACGIH TWA	
CHLORINE	1 ppm	0.5 ppm	
Engineering Measures	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.		
Personal Protective Equipment			
Eye/face Protection	Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards.		
Skin and body 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. 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 respirator cartridges as a backup to engine 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			
Appearance	Compressed gas Colour: Greenish yellow	Water solubility	ca.10 g/l at 20 °C
Odour	Pungent	Auto-ignition temperature	No data available
pH	1.8 at 6.4 g/l @ 20 °C	Viscosity	No data available
Melting point/freezing point	Melting point/range: -101 °C - lit.	Flammability (solid, gas)	No data available
Initial boiling point and boiling range	-34 °C - lit.	Decomposition temperature	No data available
Vapour pressure	6.399 hPa at 20 °C	Relative density	1.563 g/cm ³ @ 33.99 °C
Vapour density	2.44 (Air = 1.0)	Oxidizing properties	The substance or mixture is classified as oxidizing.

SECTION 10: Stability and Reactivity	
Reactive Hazard	No specific test data related to reactivity available for this product
Stability	Stable under recommended storage conditions
Conditions to Avoid	No data available
Incompatible Materials	Alcohols
Hazardous Decomposition Products	Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.
Hazardous Polymerization	Hazardous polymerization will not occur.
Hazardous Reactions	Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the: contact with combustible materials Reactions may include the: risk of causing fire
SECTION 11: Toxicological Information	
Acute toxicity	LC ₅₀ Inhalation - Rat - 1 h - 293 ppm
Carcinogenicity	This product is or contains a component that is not classifiable as to its classification.
SECTION 12: Ecological Information	
Eco toxicity	Toxicity to fish LC ₅₀ - Oncorhynchus mykiss (rainbow trout) - 0.014 mg/l - 96.0 h Toxicity to daphnia and other aquatic invertebrates EC ₅₀ - Daphnia magna (Water flea) - 0.019 mg/l - 24 h.
Other	Very toxic to aquatic life.
SECTION 13: Disposal Considerations	
Waste treatment methods	
Product	Burn in a chemical incinerator equipped with an afterburner and scrubber highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal facility.
Contaminated packaging	Dispose of as unused product.
SECTION 14: Transport Information	
UN number	1017
UN proper shipping name	CHLORINE
Transport hazard class	2.3 (5.1, 8)
Packaging group	--
Environmental hazards	IMDG Marine pollutant: Yes
SECTION 15: Regulatory Information	
Safety, health and environmental regulations/legislation specific for the substance or mixture This safety datasheet complies with the requirements of Regulation.	

SECTION 16: Other Information

Disclaimer

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.