

**DCM Shriram Ltd.**  
[Unit : SHRIRAM ALKALI & CHEMICALS]

**Material Safety Data Sheet**

**CHLORINE**

**SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Supplier : DCM Shriram Ltd.  
(Unit: Shriram Alkali & Chemicals)  
749/GIDC, Jhagadia-393110,  
Dist- Bharuch, Gujarat.  
Phone No: (02645)222000/222015

Substance : Chlorine

Trade Name/Synonyms : Chlorine gas, Diatomic chlorine, Liquefied Chlorine

CAS number : 7782-50-5

Application : It is used in many industries, mostly for Chlorination process

**SECTION 2: HAZARD IDENTIFICATION**

**HAZARD PICTOGRAM:**



**NFPA RATINGS:**

HEALTH : 4  
FLAMMABILITY : 0  
REACTIVITY : 0  
SPECIAL : OXIDISER

**HAZARD STATEMENT(S) :**

H280: Contains gas under pressure; may explode if heated.  
H315: Causes skin irritation. H319: Causes serious eye irritation.  
H330: Fatal if inhaled. H400: Very toxic to aquatic life  
H335: May cause respiratory irritation.

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**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

INGREDIENT NAME	CAS NUMBER	PERCENTAGE
Chlorine	7782-50-5	>99

**SECTION 4: FIRST AID MEASURES**

**INHALATION:** Immediately remove to fresh air. If not breathing, give artificial respiration. Qualified personnel may give oxygen when necessary. Keep patient warm. Call a physician.

**SKIN CONTACT:** Avoid breathing vapor. Immediately flush affected areas with plenty of warm water while removing contaminated clothing and shoes. Discard clothing and shoes. Call a physician.

**SWALLOWING:** An unlikely route of exposure. This product is a gas at normal temperature and pressure.

**EYE CONTACT:** Immediately flush eyes thoroughly with warm water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. See a physician, preferably an ophthalmologist, immediately.

**NOTES TO PHYSICIAN:** Victims of overexposure should be kept under medical observation for 24 to 48 hours or 72 hours if exposure was severe. The hazards of this material are due mainly to its severe irritant and corrosive properties on the skin and mucosal surfaces. Injury occurs mainly to the skin and to mucosal surfaces. There is no specific antidote; and treatment should be directed at the control of symptoms and clinical condition. Delayed pulmonary edema may occur.

**SECTION 5: FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Oxidizing agent; may accelerate combustion.

**SPECIAL FIRE FIGHTING PROCEDURES:**

**DANGER! Toxic, corrosive, oxidizing liquid and gas under pressure.** Immediately evacuate all personnel from danger area. Do not approach area without self-contained breathing apparatus and protective clothing. Immediately cool cylinders with water spray from maximum distance then move them away from fire if without risk. If cylinders are leaking, reduce toxic vapors with water spray or fog. Do not spray water directly on leak; this may cause leak to increase. Reverse flow into cylinders may cause rupture. Shut off leak if without risk.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Oxidizing agent may accelerate combustion. Contact with flammable materials may cause fire or explosion. Heat of fire can build pressure in cylinder and cause it to rupture. No part of cylinder should be subjected to a temperature higher than 125°F (52°C).

Chlorine may react violently with other materials at temperatures above 483°F (250.5°F). (See "Incompatibility," section 10.) Vapors are extremely irritating and may burn skin and eyes on contact.

**HAZARDOUS COMBUSTION PRODUCTS:** Not known.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

**DANGER! Toxic, corrosive, oxidizing liquid and gas under pressure.** Immediately evacuate all personnel from danger area. Do not approach area without self-contained breathing apparatus and protective clothing. Oxidizing agent; contact with flammable materials may cause fire or explosion. Do not spray water directly on source of flow or leak; this may accelerate flow. Reduce vapors with fog or fine water spray. Reverse flow into cylinder may cause rupture. Shut off flow if without risk. Ventilate area or move cylinder to a well-ventilated area. Prevent runoff from contaminating surrounding environment. Toxic, corrosive vapors may spread from spill. Before entering area, especially a confined area, check atmosphere with an appropriate device.

**WASTE DISPOSAL METHOD:** Prevent waste from contaminating the surrounding environment. Keep personnel away. Discard any product, residue, disposable container or liner in an environmentally acceptable manner, in full compliance with state, and local regulations. If necessary, call your local supplier for assistance.

## SECTION 7: HANDLING AND STORAGE

**PRECAUTIONS TO BE TAKEN IN STORAGE:** Store and use with adequate ventilation, away from oil, grease, and other combustibles. Firmly secure cylinders to keep them from falling or being knocked over. Store only where temperature will not exceed 125°F (52°C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full tonners for long periods.

**PRECAUTIONS TO BE TAKEN IN HANDLING:** Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. Never insert an object (e.g., wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Open valve slowly. If valve is hard to open, discontinue use and contact your supplier.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT %	PEL-OSHA	TLV-ACGIH	LD50 or LC50 Route/Species
Chlorine FORMULA: Cl <sub>2</sub> CAS: 7782-50-5	1 ppm Ceiling	0.5 ppm TWA 1 ppm STEL	LC50 293 ppm/1H (rat)

### VENTILATION/ENGINEERING CONTROLS:

**LOCAL EXHAUST** – A corrosion-resistant system is acceptable.

**MECHANICAL** (general) – Inadequate. See SPECIAL, below..

**SPECIAL** – Use only in a closed system. Corrosion-resistant, forced-draft fume hood is preferred

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Toxic effects reported in renal system, blood and spleen from inhalation exposure of rats.

**SECTION 12: ECOLOGICAL INFORMATION**

Do not dispose in sewer and waterway.

Ensure damage or non returnable cylinders are gas free before disposal.

Empty container may have residual chlorine; it may absorb in dilute solution of caustic.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL METHOD:** Do not dispose of unused quantities. Return cylinder to supplier.

**SECTION 14: TRANSPORT INFORMATION**

**DOT/IMO SHIPPING NAME** : Chlorine

**IDENTIFICATION NUMBER** : UN 1017

**HAZARD CLASS** : 2.3

**HAZCHEM CODE** : 2XE

**SHIPPING LABEL(s)** : TOXIC GAS, CORROSIVE, OXIDIZER

**SPECIAL SHIPPING INFORMATION:** Cylinders should be transported in a secure position, in a well-ventilated vehicle. Cylinders transported in an enclosed, non ventilated compartment of a vehicle can present serious safety hazards.

Shipment of compressed gas cylinders that have been filled without the owner's consent is a violation of law.

**SECTION 15: REGULATORY INFORMATION**

- Refer Section-2
- As per National and State regulations of Hazardous chemical

**SECTION 16: OTHER INFORMATION**

Name of the firm	Mailing Address	Contact Person in Emergency	Telephone no.
Shriram Alkali & Chemicals (SAC)	749, GIDC Estate Jhagadia. Pin-393110 Dist: Bharuch	Head of Production	Telephone NOS : 02645-222000/222015

**Chlor –Alkali Emergency response network toll free No. : 1800-11-1735**



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**Disclaimer:**

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