

CHLORINE-99.5%

Chemical Structure and Identity



Specifications

Characteristics	Unit	Standard Value
Description	-	Clear Amber Liquid
Odor	-	Characteristics Suffocation
Purity	%	99.8 Min.

CAS No
7785-50-5

EINECS No
231-959-5

Technology
AKCC

UN No
1017

Class
2

Packing Group
III

State
Liquid

Commercial Trade Name
None

Synonyms
None

Formula
Cl₂

Molecular Weight
71

Package Unit
900 kg Tonner

Handling & Safety

- **STORAGE REQUIREMENTS** Chlorine may be kept outdoors or in a well-ventilated, detached or segregated area of non-combustible construction.
- When Chlorine is stored in a confined area or Gas Storage Room then the construction and maintenance must comply to the requirement of SANS 10298: 2009.
- Chlorine Storage containers should be protected against physical damage, and kept separate from combustible, organic or easily oxidisable materials, especially acetylene, ammonia, hydrogen, hydrocarbons, ether, turpentine and finely divided metals.
- A chlorine leak due to corrosion of a brass needle valve to a chlorine gas cylinder has been reported; stainless steel or monel metal is therefore recommended.
- Permanent storage is generally not recommended; a maximum of about 450 t may be handled in high strength tanks as a liquefied gas under pressure.
- Low temperature storage at atmospheric pressure is preferred for larger amounts; evaporating chlorine gas is re-liquefied by a small refrigeration unit and recycled.
- A standby absorber unit e.g. caustic soda solution tank, is also recommended in case of refrigeration unit failure. N.B.
- Always store chlorine cylinders (68 kg) in an upright position and portable tanks (900-1000 kg) on their sides.
- Keep full and empty containers separated. **HANDLING PRECAUTIONS** Chlorine should be handled wearing an approved respirator, safety goggles, and chemical resistant gloves.
- It should only be used in a chemical fume hood. Cylinder temperature should not exceed 52°C.

Application

- Poly Vinyl Chloride (PVC)
- Chlorinated Organic Solvents
- Chlorinated Paraffin Wax (CPW)
- Water Purification
- Bleaching Agent
- Waste & Sewage Treatment
- Disinfecting Agent
- Sanitizing Agent
- Synthetic Chlorinated Rubber
- Sodium Hypochlorite
- Calcium Hypochlorite
- Isocyanates
- Polycarbonate
- Chloromethanes
- Perchloroethane
- Phosgene
- Inorganic Chlorides
- Epichlorohydrin
- Poly Aluminium Chloride
- Silicon dioxide (Aerosol)