



TECHNICAL DATA SHEET

Product Name
Liquid Chlorine

MVC-TDS-04
Issue Date : 1/18/23
Rev. Code : 02
Page 1 of 2

Product Description

Liquid chlorine (Cl_2) is a yellow-green liquid, produced from the readily available starting material, rock salt (sodium chloride). It is well known for its use in sterilizing drinking water and, in particular, swimming pool water.

Typical Applications

- Water treatment
- Pharmaceuticals
- PVC manufacturing
- Chemical manufacturing
- Pesticides
- Rubber, Paper and Textile Industries

Product Characteristics

- Powerful oxidant
- Reactive
- Non-flammable
- Non-corrosive

Product Registration

- Liquid Chlorine
Category Code: G4
NSF Registration No. 151725

Product Packaging

- 1-ton Cylinders
- 68-kg Cylinders

General Properties

Appearance	Greenish-yellow to amber gas	Vapor Density	2.49 (air = 1.0)
Odor	Irritating, pungent odor	Relative Density (water = 1.0)	1.41 at 20°C (liquid)
Odor Threshold	0.2 ppm	Solubility in water	14.6 gpl at 0°C; 6.9 gpl at 20°C
Freezing Point	-101°C	Viscosity	14 Pa.s at 20°C
Boiling Point /Range	-34°C	Concentration	> 99.5%
Vapor Pressure	5168 mmHg at 21°C		

Product Technical Assistance

For technical assistance or further information on this product or any other MVC products, contact your MVC technical service representative at the address or telephone number given below.

Process Flow



Cl_2 gas produced from electrolysis is cooled using water as cooling medium. It is passed through a mist separator to remove the excess moisture, and then proceeds to the drying tower, using sulfuric acid as medium. Afterwards, Cl_2 gas is compressed in the compressor using sulfuric acid as sealing fluid. Then, it is forwarded to a mist separator where chlorine gas is separated from sulfuric acid. The compressed chlorine is liquefied in the liquefaction unit. Liquefied chlorine is lastly stored in a receiving tank.



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Page 2 of 2

Storage

- Store chlorine containers and cylinders below 45°C in cool, dry, well ventilated areas of non-combustible construction away from sunlight, precipitation, heavily trafficked areas and emergency exit. Protect from sunlight.
- Cylinders should be stored upright and firmly secured to prevent falling or being knocked over.
- Full cylinders should not be stored for more than six months.
- Full and empty cylinders should be segregated.

Safety Precautions

- Keep away from heat, sparks, open flames and incompatible substances.
- Avoid inhalation of vapors and skin and eye contact.
- Use protective equipment.
- Change contaminated or soaked clothing immediately.
- Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinders movement.
- Protect cylinders and containers from physical damage.
- Chlorine emergency equipment should be available near the point of use.

Related Documents

- The latest version of this document will be available at our website, or can be obtained from the MVC technical service representative.
- The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.
 - Safety Data Sheet

- The product can be used only for the application as specified hereabove.
- To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability whatsoever for the accuracy and completeness of such information.
- We make no warranties which extend beyond the description contained herein. Nothing herein shall constitute any implied warranty of merchantability or fitness for a particular purpose.
- It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.
- No liability can be accepted in respect of the use of our products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials.