

Doc. # **Cl₂-TDS-04**Rev. # **00**Effective Date: **01.01.2023****TITLE: TECHNICAL DATA SHEET (TDS) FOR LIQUID CHLORINE**

SECTION ①: PRODUCT INFORMATION						
Name	CAS #	Chemical Formula	Molar Mass	Boiling Point	Melting Point	Hazard Pictogram
Liquid Chlorine	7782-50-5	Cl ₂	70.90 g/mol	- 34.0°C	- 101.0°C	

SECTION ②: SPECIFICATIONS				
Appearance	Purity as Chlorine (By Volume) %	Moisture %	Other Gases (By Volume) %	SO ₄ ⁻² %
Amber Colour Liquid	Min. 99.9	NIL	Max. 0.1	NIL

SECTION ③: APPLICATIONS	SECTION ④: HANDLING AND SAFETY MEASURES
<ul style="list-style-type: none"> Liquid chlorine is used for purification and disinfection of industrial waste water, sewage water and swimming pools water. It is also used for the manufacturing of insecticides, herbicides, fungicides, paper, board, chlorine disinfection solutions, household and laundry bleach. It is used as raw material in the manufacturing of bleaching powder, sodium hypochlorite, plastics, PVC, synthetic rubbers, paraffin waxes, organic and inorganic chemicals. It is also used as chemical intermediate in agriculture. 	<p>Liquid chlorine is highly hazardous substance. Chlorine is a greenish yellow gas (or amber liquid) and has pungent, suffocating and irritating odour.</p> <ul style="list-style-type: none"> May cause severe chemical burns to cornea. If liquid chlorine or high concentrations of chlorine gas get into eyes, flush eyes immediately with a direct stream of water for at least 15 minutes. Contact with evaporating liquid may cause frostbite or freezing of skin. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, trained personnel should give oxygen. To avoid possible chemical burns, the rescuer should avoid breathing any exhaled air from the victim. Do not attempt chemical neutralization of any kind. Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, trained personnel should give oxygen. Get medical attention immediately. Need to wash thoroughly after handling. Avoid breathing the vapors. Vacate poorly ventilated areas as soon as possible. Do not return until the strong odors have dissipated. Open the cylinders with care and do not intake internally.

SECTION ⑤: HAZARD CLASSIFICATION	SECTION ⑥: PACKING AND TRANSPORT INFORMATION
<p>According to ADR and RID liquid chlorine is classified in Class 2.3 (toxic, dangerous for environment) on the basis of its main hazardous properties. Risk Phrases: R23 (Toxic by inhalation), R/36/37/38 (Irritating to eyes, respiratory system and skin), R50 (Very toxic to aquatic life).</p> <p>All further measures to be taken related to transportation can be determined in the knowledge of its hazard classification.</p>	<p>Liquid chlorine (99.9 %) is delivered in 100kg and 1000kg cylinders.</p>