

Material Safety Data Sheet

Provided by:
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SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name CHLORINE
Synonyms NONE
Chemical Name CHLORINE
Emergency phone: 281-457-4888
Chemtrec: 800-424-9300
Date of Issue: 10/1/00
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SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	PERCENT	CAS NO.
CHLORINE	> 99%	7782-50-5

SECTION 3 - HAZARDS IDENTIFICATION

Potential Health Effects

ACGIH - TLV: 0.5 ppm
Eye Contact CONTACT MAY CAUSE EYE BURNS.
Skin Contact CONTACT MAY CAUSE BURNS AND TISSUE DESTRUCTION.
Ingestion NOT A LIKELY ROUTE OF EXPOSURE.
Inhalation COUGHING, BURNING, CHEST PAIN, VOMITING, HEADACHE, ANXIETY AND FEELING OF SUFFOCATION. SEVERE EXPOSURE MAY CAUSE PNEUMONITIS AND PULMONARY EDEMA.
Carcinogenicity: *NTP* NO *IARC* NO *OSHA* NO

SECTION 4 - FIRST AID PROCEDURES

Eye Contact: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.
Skin Contact: IMMEDIATELY REMOVE CONTAMINATED CLOTHING OR SHOES, WIPE EXCESS FROM SKIN AND FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. USE SOAP IF AVAILABLE OR FOLLOW BY WASHING WITH SOAP AND WATER. DO NOT REUSE CLOTHING UNTIL THOROUGHLY CLEANED. GET MEDICAL ATTENTION.
Inhalation: REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.
Ingestion: DO NOT INDUCE VOMITING. RINSE MOUTH WITH WATER. IF CONSCIOUS, GIVE LARGE QUANTITIES OF WATER OR MILK AND GET IMMEDIATE MEDICAL ATTENTION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON!

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point (°F) NOT APPLICABLE
Extinguishing Media USE MEDIA FOR SURROUNDING MATERIALS.
Special Firefighting Procedures/Precuations WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. AVOID BREATHING FUMES OR VAPORS. USE WATER TO COOL CONTAINERS BUT AVOID GETTING WATER INTO CONTAINERS. DOES NOT BURN, BUT IS A STRONG OXIDIZER AND SERIOUS FIRE RISK.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

For Spill: EVACUATE UNNECESSARY PERSONNEL UPWIND OF SPILL AREA. CONTAIN LIQUIDS AND PREVENT DISCHARGES INTO WATERWAYS AND SEWERS. CONTROL OR STOP THE LOSS OF VOLATILE MATERIAL TO THE ATMOSPHERE. DO NOT APPLY WATER TO THE LEAK. REACTS WITH WATER TO FORM CORROSIVE, ACIDIC SOLUTION. CHLORINE CAN BE ABSORBED INTO AN ALKALI.

SECTION 7 - HANDLING AND STORAGE

Keep container tightly closed when not in use. Store in a cool, dry, well-ventilated area, away from heat and incompatible materials. Protect containers from physical damage.

FOLLOW SAFETY PROCEDURES FOR CONTAINERS OF COMPRESSED GASES. PROVIDE SPECIAL TRAINING TO WORKERS HANDLING CHLORINE. LEAKS SHOULD BE STOPPED WITH PROMPTLY. VAPORS ARE HEAVIER THAN AIR. STORE IN WELL-VENTILATED AREA OF LOW FIRE POTENTIAL AND AWAY FROM INCOMPATIBLE MATERIALS. DO NOT USE STAINLESS STEEL EQUIPMENT. REGULARLY TEST AND INSPECT PIPING AND CONTAINMENT. HEATING COULD MELT PLUGS ON CYLINDERS AND TON CONTAINERS AND CAUSE SAFETY VALVES ON TANK CARS TO VENT, CAUSING LEAKS. MOISTURE (MORE THAN 150 PPM OF WATER) AND CHLORINE CAN FORM HYDROCHLORIC AND HYPOCHLOROUS ACIDS, WHICH ARE CORROSIVE. NEVER PLACE A LEAKING CONTAINER IN WATER OR SPRAY LEAKING CONTAINER WITH WATER. NEVER TAMPER WITH FUSIBLE PLUGS OR SAFETY DEVICES ON CONTAINERS; NEVER MANIFOLD CONTAINERS FROM LIQUID VALVES. THIS PRODUCT IS TOXIC TO FISH. KEEP OUT OF WATERWAYS AND SEWERS.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection USE A NIOSH/MSHA APPROVED RESPIRATOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS WHEN CONCENTRATIONS EXCEED PERMISSIBLE EXPOSURE LIMITS.

Ventilation LOCAL AND MECHANICAL RECOMMENDED.

Protective Gloves CHEMICAL IMPERVIOUS GLOVES.

Eye/Face Protection CHEMICAL SAFETY GOGGLES AND/OR FULL-FACE SHIELD.

Other Protection CHEMICAL RESISTANT CLOTHING SUCH AS COVERALLS/APRON, BOOTS, ETC. EMERGENCY SHOWER AND EYEWASH FACILITY SHOULD BE IN CLOSE PROXIMITY.

Work Practices USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING AND WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°F):	-29.3	Vapor Pressure (mmHg):	5830 (@ 20 C)
Freezing Point (°F):	-150	Vapor Density (Air=1):	2.49
Solubility (H2O):	NEGLIGIBLE	Specific Gravity (H2O=1):	1.4
pH	NOT APPLICABLE	Evaporation Rate:	NOT AVAILABLE
Appearance/Odor:	AMBER COLOR LIQUID. GREENISH-YELLOW GAS. PUNGENT IRRITATING ODOR.		

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability: YES

Incompatible Material: AVOID CONTACT WITH REDUCING AGENTS. KEEP AWAY FROM MATERIALS SUCH AS ACETYLENE, TURPENTINE & OTHER HYDROCARBONS, AMMONIA, HYDROGEN, ETHER, METALS, SULFUR, & ALUMINUM.

Hazardous Polymerization: WILL NOT OCCUR.

Decomposition Products: REACTS WITH HYDROGEN SULFIDE AND WATER FORMING HYDROCHLORIC ACID. COMBINES WITH CARBON MONOXIDE AND SULFUR DIOXIDE FORMING PHOSGENE AND SULFURYL CHLORIDE.

SECTION 11 - TOXICITY INFORMATION

LC50 (rat) = 293 ppm (1-HR), 690 ppm (30-MINUTE)
LC50 (mouse) = 70 ppm (4-HR), 137 ppm (1-HR)

