

CHEM INTERNATIONAL**MATERIAL SAFETY DATA SHEET****EMERGENCY #: CANUTEC (613) 996-6666****PRODUCT IDENTIFICATION AND PREPARATION INFORMATION****PRODUCT NAME:** C.I. Industrial Bleach**EFFECTIVE DATE:** January 8, 2009**WHMIS CLASS:** E D.2B**T.D.G. CLASSIFICATION:** Sodium Hypochlorite UN: 1791 CLASS: 8**PG:** III **CHEMICAL FAMILY:** Oxidizing Agent**MATERIAL USE:** Disinfectant, bleaching agent, source of available chlorine.**HAZARDOUS INGREDIENTS**

INGREDIENTS	CAS #	%Wt	LC50	LD50
Sodium Hypochlorite	7681-52-9	12.0	Not Avail	(oral, rats)-12mg/kg (100% sodium hypochlorite)
Sodium Hydroxide	1310-73-2	0.7		
Sodium Chloride	7647-14-5	8.5		
Water		79.9		

PHYSICAL DATA**BOILING POINT (°C):** 110°C for 15% solution. Decomposes slowly at 40°C (107°F) to NaCl, NaClO₃ and oxygen.**VAPOUR PRESSURE (mm Hg):** Vapor pressure of water plus decomposition product vapour pressure. (Note: Since the material is continually decomposed giving off gases, all containers should be vented.)**SPECIFIC GRAVITY (H₂O=1 @ 4°C):** 1.165 at 15°C (60°F). **VAPOUR DENSITY (Air=1):** N/AV**PERCENT VOLATILE (by weight):** N/D **SOLUBILITY IN WATER:** 100%**EVAPORATION RATE (H₂O=1):** N/AV **PHYSICAL STATE:** Liquid**ODOUR THRESHOLD:** N/AV **pH (as supplied):** >12**FREEZING POINT (°C):** -25°C (-13°F) **COEF. OF WATER/OIL DIST.:** Not Avail.**APPEARANCE AND ODOUR:** Clear, greenish-yellow, aqueous solution with strong chlorine odour.**FIRE AND EXPLOSION DATA****FLAMMABILITY:** Non combustible (will not burn)**FLASH POINT (°C method):** N/A **UEL:** Nonflammable **LEL:** Nonflammable**HAZARDOUS COMBUSTION PRODUCTS:** Will not support combustion.**MEANS OF EXTINCTION:** Small fires - use dry chemical or CO₂. Large fires - Water spray, fog or foam. Do not get water inside containers, move containers from fire area if without risk. Cool containers with water from maximum distance until well after the fire is out.**SPECIAL FIREFIGHTING PROCEDURES:** Protect firemen against corrosive fumes and liquids. Remove storage vessels from fire zone if possible. Apply water to cool containers or tanks.**UNUSUAL FIRE & EXPLOSION HAZARDS:** Sodium hypochlorite is nonflammable, but is decomposed by heat, light and explosion when heated or on contact with acidic fumes. Vigorous reaction with oxidizable organic materials may result in fire.**AUTO IGNITION TEMP.:** None**EXPLOSION DATA-SENSITIVITY TO: MECHANICAL IMPACT:** N/AV **STATIC DISCHARGE:** N/AV**REACTIVITY DATA****CHEMICAL INSTABILITY:** Unstable at temperatures above 40°C (104°F), in sunlight, and in contact with acid.**INCOMPATIBILITY:** Strong acids, ammonia, oxidizable materials, nickel, copper, tin, manganese, and iron.**HAZARDOUS DECOMPOSITION PRODUCTS:** Chlorine (by reaction with acids), oxygen (by reaction with nickel, copper, tin, manganese, iron), sodium chloride and sodium chlorate, with increased temperature.**FIRST AID****EYE:** Immediately flush the contaminated eyes with lukewarm, gently flowing water for at least 20 minutes, holding the eyelid(s) open. Take care not to rinse water into non-affected eye. Obtain medical attention immediately.**SKIN:** As quickly as possible, flush contaminated area with lukewarm gently running water for at least 15 minutes. Under running water, remove contaminated clothing, shoes, and leather goods. Obtain medical attention immediately.**INHALATION:** Remove source of contamination or move victim to fresh air. If breathing difficulty is present, oxygen may be beneficial if administered by a person trained in its use. Obtain medical attention immediately.**INGESTION:** Do not induce vomiting. If unconscious do not give anything by mouth. Check breathing and pulse. If breathing has stopped trained personnel should give artificial respiration. If heart has stopped give cardiopulmonary resuscitation (CPR). If conscious give one cup (250-300ml) of water to drink immediately. Give repeated drinks of water at a rate of one cup every 10 minutes. If vomiting occurs naturally, rinse mouth and repeat administration of water. Obtain medical attention immediately.

TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY: Eyes contact (), Skin contact (), Skin absorption (), Inhalation (), Ingestion ()

EFFECTS OF ACUTE EXPOSURE:

EYE: Causes severe irritation of the mucous membranes of the eyes. May cause severe eye damage.

SKIN: Causes severe skin irritation with blistering and ulceration.

INHALATION: Irritant of the nose and throat causing coughing, difficulty breathing and pulmonary edema.

INGESTION: Burning in the mouth and throat, abdominal cramps nausea, vomiting, diarrhea, and shock. May lead to convulsions, coma and death.

EFFECTS OF CHRONIC EXPOSURE:

IRRITANCY: Not Available

RESPIRATORY TRACT SENSITIZATION:

CARCINOGENICITY: Not carcinogenic (IARC and ACGIH)

MUTAGENICITY: Not Available

SYNERGISTIC MATERIALS: Not Available

EXPOSURE LIMITS: (TLV-TWA): None established.

PREVENTATIVE MEASURES

SKIN PROTECTION: Gloves, boots and apron should be used as cover depending on exposure. Coveralls should be made of rubber, PVC or some other pervious material.

EYE/FACE PROTECTION: Use tight fitting chemical goggles.

RESPIRATORY PROTECTION: Use NIOSH approved canister type respirators suitable for chlorine.

OTHER PROTECTIVE EQUIPMENT: Safety showers and eye wash fountains should be in storage and handling areas.

MATERIALS FOR PROTECTIVE CLOTHING: Rubber, polyvinyl chloride or other impervious material.

ENGINEERING CONTROLS: Although good ventilation is suggested, no special ventilation is required unless sodium hypochlorite is exposed to decomposition conditions such as spills, or acidic conditions.

LEAK AND SPILL PROCEDURE: Restrict access to area until completion of cleanup. Wear adequate personal protective equipment. Extinguish or remove all ignition sources and ventilate area. Do not allow chemical to enter sewers or waterways. With large spills, dyke for alter disposal or recovery. With minor spills flush contaminated area with large quantities of water. Never use combustibles such as sawdust to absorb.

WASTE DISPOSAL: Consult appropriate Federal, Provincial and Local regulatory authorities to ascertain disposal procedures. Care should be taken not to mix waste with incompatible material. After treatment with a reducing agent such as sodium sulphite (ensure there is no chlorine residual) neutralize the caustic solution with hydrochloric or sulphuric acid.

STORAGE REQUIREMENTS & HANDLING PROCEDURES: Store in cool, dry location away from direct sunlight, and combustible materials. Venting of containers is advisable. Keep storage temperatures below 29°C (85°F). Long storage is impossible due to the limited shelf life of Sodium hypochlorite.

N/AP= NOT APPLICABLE · N/E=NOT ESTABLISHED · N/D=NOT DETERMINED · N/AV=NOT AVAILABLE
 <=LESS THAN - >=MORE THAN

HMIS HAZARD RATING INFORMATION

FIRE

REACTIVITY

HEALTH

PERSONAL PROTECTION

0 – Minimal, 1- Slight, 2 – Moderate, 3 – Serious, 4 – Extreme.

DISCLAIMER: Information for this material safety data sheet was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases, data is not available and is so stated. Since conditions of actual product use are beyond the control of the supplier, it is assumed that the user of this material has been fully trained according to the mandatory requirements of WHIMIS. No warranty, expressed or implied is made, and supplier will not be liable for any losses, injuries, or consequential damage that may result from the use or reliance on any information contained in this form.

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