



SODIUM HYPOCHLORITE

PRODUCT INFORMATION

CHEMICAL NAME: Sodium Hypochlorite Solution
SYNONYMS(S): PrairieChlor-12, Hypo, Bleach, Javel water, household bleach, Industrial bleach
CHEMICAL FAMILY: Hypochlorous acid salt
SHIPPING NAME: (solutions>7%) Hypochlorite solutions
(solutions 7% or under) Not Regulated
MOLECULAR FORMULA: NaOCl WHMIS CLASSIFICATION: E,C,F,D2B
PIN - UN/NA NUMBER(S): UN1791 CLASS: 8(9.2) GROUP: III
PRODUCT USE: Disinfectant, bleaching agent, source of available chlorine
MANUFACTURER: ClearTech-Hypochlor Division
11750 - 180th Street
Edmonton, AB T5S 1N7
SUPPLIER: Panther Industries Inc.
Box 628.
Davidson, SK S0G 1A0
EMERGENCY TELEPHONE: (306) 567-2814

HAZARDOUS INGREDIENTS

INGREDIENTS	% BY WEIGHT	CAS REGISTRY NUMBER
Sodium Hypochlorite	5.4 - 13.2%	7681-52-9
Sodium Hydroxide	0.1 - 0.5% (maximum)	1310-73-2
Sodium Chloride	4-12%	7647-14-5
Water	Balance	7732-18-5

PHYSICAL DATA

PHYSICAL STATE: Liquid
ODOUR AND APPEARANCE: Clear, greenish-yellow solution. Strong chlorine odour
ODOUR THRESHOLD: Not available
VAPOR PRESSURE: 12.1 mm Hg at 20oC (12.5-wt%)
(Note: Since the material is continually decomposed giving off gases, all containers should be vented)
VAPOR DENSITY: Data not available EVAPORATION RATE: Data not available
BOILING POINT: 110oC for 15% solution. Decomposes slowly at 40oC (104oF) to NaCl, NaClO3 and oxygen
pH: Greater than 12 FREEZE/MELTING POINT: ~-15oC (12%-trade)
SPECIFIC GRAVITY(water=1): 1.17 at 20oC (12%-trade)
MOLECULAR WEIGHT: 74.44 SOLUBILITY IN WATER: 100%
% VOLATILES BY VOLUME: Data not available
COEFFICIENT OF WATER/OIL DISTRIBUTION: Data not available

FIRE AND EXPLOSION DATA

CONDITIONS OF FLAMMABILITY: Non combustible (will not burn)
EXPLOSION HAZARDS: Pressure buildup in containers could result in an explosion when heated or in contact with acidic fumes. Vigorous reaction with oxidizable organic materials may result in a fire.
MEANS OF EXTINCTION: Product does not burn. Use appropriate extinguishing media for material that is supplying the fuel to the fire.



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FLASH POINT AND METHOD OF DETERMINATION: Not applicable
AUTO IGNITION TEMPERATURE: Not applicable
UPPER FLAMMABLE LIMIT: Not applicable
LOWER FLAMMABLE LIMIT: Not applicable
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and protective clothing. Use water spray to cool containers and to knock down fumes.
HAZARDOUS COMBUSTION PRODUCTS: Decomposition may produce chlorine gas and/or hydrogen gas.

REACTIVITY DATA

STABILITY: Unstable at temperatures above 40°C (104°F), in sunlight, and in contact with acid
HAZARDOUS POLYMERIZATION: Will not occur
INCOMPATIBILITY: Strong acids, ammonia, oxidizable materials, nickel, copper, tin, manganese, and iron
REACTIONS: Chlorine (by reaction with acids), oxygen (by reaction with nickel, copper, tin, manganese, iron), sodium chloride and sodium chlorate, with increased temperature

HEALTH HAZARD DATA

INHALATION: Irritant of the nose and throat causing coughing, difficulty breathing and pulmonary edema.
EYE CONTACT: Causes severe irritation of the mucous membranes of the eyes. May cause severe eye damage
SKIN CONTACT: Causes severe skin irritation with blistering and ulceration
INGESTION: Burning in the mouth and throat, abdominal cramps, nausea, vomiting, diarrhea, shock. May lead to convulsions, coma and even death
CHRONIC/ACUTE EFFECTS: If overexposed to the solution, there will be constant irritation of the eyes, nose, and throat
EXPOSURE LIMITS: None established. Chlorine TLV = 1ppm
IRRITANCY: Strong irritant SENSITIZATION TO PRODUCT: Not available
ANIMAL TOXICITY DATA: LD50(oral, rat)= 8910mg/kg (100% Sodium Hypochlorite)
LC50(inhalation, rat, 1hour)>10000mg/m³
CARCINOGENICITY: Not considered to be carcinogenic (IARC and ACGIH)
REPRODUCTIVE TOXICITY: Data not available
MUTAGENICITY: Data not available
SYNERGISTIC MATERIALS: Data not available

FIRST AID MEASURES

INHALATION: Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.
EYE CONTACT: Flush immediately with water for at least 20 minutes. Forcibly hold the eyelid(s) apart to ensure complete irrigation of eye tissue. Seek immediate medical attention.
SKIN CONTACT: Remove contaminated clothing. Irrigate affected area with water for at least 20 minutes. Seek immediate medical attention.
INGESTION: Do not induce vomiting. If vomiting occurs, lean victim forward to prevent breathing in vomits. Give large amounts of water. Do not give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.



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PREVENTATIVE MEASURES

RESPIRATORY PROTECTION: Use NIOSH approved respirator suitable for chlorine. Where a higher level of protection is required, use a self-contained breathing apparatus.

EYE/FACE PROTECTION: Use tight fitting chemical goggles and full faceshield unless full facepiece respirator is worn. Contact lenses should not be worn during the handling of this product; they may contribute to severe eye injury.

SKIN PROTECTION: Impervious gloves, boots, body suits and other resistant protective clothing (rubber or PVC). Wash contaminated clothing with soap and water and dry before reuse.

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

SPECIAL HANDLING PROCEDURES: Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid situations that could lead to harmful exposure

STORAGE REQUIREMENTS: Store in a cool, dry, well-ventilated place. Keep container tightly closed, and away from incompatible materials. Venting of containers is advisable.

ENGINEERING CONTROLS: Local mechanical exhaust ventilation is normally required.

Because of potential chlorine generation, installation of continuous monitoring, detection, and alarm systems is recommended.

SPECIAL SHIPPING REQUIREMENTS: Transportation Canada is governed by Transport Canada. Refer to the Transportation of Dangerous Goods (TDG) Regulations for special shipping requirements. In general for rail car shipments, when the car is unloaded placards should be reversed to indicate residue placarding. Transport in the U.S. is regulated by the Department of Transport (DOT). Refer to DOT regulations (CFR 49) for special shipping requirements.

ENVIRONMENTAL PROTECTION DATA

STEPS IN THE EVENT OF A LEAK OR SPILL: Restrict access to area until completion of cleanup. Ventilate area. Do not allow chemical to enter sewers or water ways.

With large spills, dyke for later disposal or recovery. With minor spills flush contaminated area with large quantities of water.

ENVIRONMENTAL EFFECTS: Data not available.

DEACTIVATING CHEMICALS: Neutralize first with sodium sulphite for no chlorine residual, then with hydrochloric acid until the pH is 7.

WASTE DISPOSAL: Dispose in accordance with all federal, provincial and local regulations.

PREPARATION INFORMATION

MSDS PREPARED BY: Technical Dept.
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DATE PREPARED/REVISED: March 10 2007

DATE PRINTED: March 10 2007

REFERENCES: 1. Manufacturer MSDS