AMREX CHEMICAL CO., INC.
117 E. Frederick St.
P. O. Box 642
Binghamton, NY 13902

MATERIAL SAFETY DATA SHEET

SECTION I IDENTIFICATION

Product Name: SODIUM HYPOCHLORITE, SOLUTION
Chemical Name: Hypochlorite, Aqueous Solution
Synonyms: Bleach, Hypo-solution
Chemical Family: Alkali
Formula: NaOCl
Manufacturer: Manley-Regan Chemicals / Div. of E+E (US),Inc.
Address: 532 East Emaus Street
Middletown, Pa. 17057
Phone: (717)944-7471

SECTION II INGREDIENTS

COMPONENT	CAS NO.	%	PEL/TLV-SOURCE
Sodium Hypochlorite	7681-52-9	10.5	Not Established
Contains:			
Sodium Hydroxide	1310-73-2	0.8to 2.4	PEL 8Hr 2mg/m(3) OSHA TLV 8Hr 2mg/m(3) Ceiling ACGIH 86/87
Chlorine(available)	7782-50-5	Apprx 10.0	PEL 8Hr 1ppm Ceiling-OSHA TLV 8Hr 1ppm STEL 3ppm ACGIH 86/87

SECTION III PHYSICAL DATA

Boiling Point/Melting Point @ 760 mm Hg: 110C / N/A
Vapor Pressure mm Hg @ 20C: VP of water plus decomposition product VP.
Specific Gravity (water = 1): Approx. 1.19
Ph: 9.0-12.0
Solubility In Water: Complete
Appearance: Light Yellow-Green Liquid
Odor: Chlorine Intensity: Slight

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (test method): Non-Flammable
Autoignition Temperature: None
Flammability Limits In Air: None LEL: N/A UEL: N/A

SECTION IV *CONTINUED

Extinguishing Medium: Use water to cool containers, knock down fumes if released.
NFPA Rating: Not listed in 9th Edition

Special Firefighting Procedures: Avoid fumes from spilled or exposed liquid, dilute copiously, ventilate and be prepared to use respiratory protection if needed. Acid contamination will produce very irritating fumes similar to chlorine gas.
Unusual Fire And Explosion Hazards: Product decomposes when heated and may cause containers to rupture or explode.

EMERGENCY TELEPHONE NUMBERS

CHEMTREC 1-800-424-9300 24 hours a day/all year around
MANLEY-REGAN CHEMICALS (call collect) (717)944-7471

SECTION V HEALTH DATA

Toxicological Test Data:	Result:
Sodium Hypochlorite @ 12.5% Rat, Oral LD50	5.0 g/kg
Sodium Hypochlorite @ 5.25% Rat, Oral LD50	13.0 g/kg

Potential Effects of Exposure

Acute- Irritating effects increase with strength of solution and time of exposure.
Chronic- Constant irritant to eyes and throat.
Eyes: Causes severe eye irritation.
Skin: Irritation, reddening, damage with long or repeated exposure.
Inhalation: Fumes from exposed solution very irritating to mucous membranes, may cause sneezing. Grossly excessive exposure can cause bronchitis and pneumonia, and corrosion of the respiratory tract in severe cases.
Ingestion: Causes irritation of membranes of the mouth and throat, stomach pain and possible ulceration. In severe cases can produce circulatory collapse, lethargy, delidium, convulsions, and coma.

SECTION V CONTINUED

First Aid Procedures:

Eyes--Flush eyes with flowing water for at least 15 minutes. Get medical attention.

Skin--Wash affected areas with soap and water. If irritation develops, consult physician.

Ingestion--If swallowed, DO NOT induce vomiting or administer baking soda or acidic antidotes. Drink water or milk and obtain medical attention ADVICE TO PHYSICIAN: Antidote- give Sodium Thiosulfate orally.

Inhalation--If inhaled, move to fresh air. Aid in breathing, if necessary, and get medical attention.

SECTION VI REACTIVITY DATA

Stability:Relatively Stable -Contingent upon, Temperature, Contamination, and PH.
Conditions To Avoid: Contact with acids will release CL2.
Chemical Incompatibility: Acids, Ammonias, Oxidizable Materials, Metals, Heat Sources, and Light Sources.
Hazardous Decomposition Products:Chlorine, Hydrochloric Acid
Hazardous Polymerization: Does Not Occur.
Conditions To Avoid:Mixing Ammonia and Hypochlorite Solutions.
Corrosive To Metal: YES
Oxidizer: No

SECTION VII SPECIAL PROTECTION

Respiratory Protection:

NIOSH approved acid gas chemical cartridge respirator or full face with canister. For unknown concentrations: use self contained breathing apparatus.

Eye Protection:

If splashing can occur, use chemical goggles and full face shield.

Protective Clothing:

Use rubber gloves, apron or rain suit and boots to avoid bodily contact.

Ventilation:

Local exhaust recommended to remove chlorine odor.

SECTION VIII ENVIRONMENTAL DATA

Environmental Toxicity Data:

Aquatic toxicity rating: 96 hr. LC50
Ceriodaphnia dubia: 1.23 ppm
Pimephales promelas: 1.19 ppm

Spill And Leak Procedures:

Do not allow material to enter sewers, streams, ponds, or storm conduits. Personell involved in clean-up must be appropriately equipped. As produced, this material is not regulated under RCRA. If discarded; it is a corrosive hazardous waste; EPA hazardous waste number D002.

Waste Disposal Method:

Contain spills in plastic drums when available. Contain in as small an area as possible, such as a holding area for dilution and neutralization. Dispose of in accordance with Federal, State, and Local regulations.

Container Disposal:

Dispose in a licensed facility.
Recommend crushing or other means to prevent unauthorized reuse.

SECTION IX SHIPPING DATA

D.O.T. Proper Shipping Name:	Hypochlorite solution
D.O.T. Hazard Classification:	Corrosive Material
D.O.T. Labels Required:	Corrosive
D.O.T. Placards Required:	Corrosive
UN/NA Number Required:	UN1791
Reportable Quantity:	100 lb. (10 gallons)

SECTION X SARA TITLE III INFORMATION

This blend does not contain any substances subject to the Threshold Planning Quantity (TPQ) requirements of section 313 of the act.

DATE PREPARED: 6/1/93
PREPARED BY: F. SALLADA

While Manley-Regan Chemicals believes the data set forth herein are accurate as of the date hereof, Manley-Regan Chemicals makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration, investigation, and verification.