Common Name: SODIUM HYPOCHLORITE, 12%

Manufacturer: SPECTRUM LABORATORY PRODUCTS

MSDS Revision Date: 7/17/2009

MSDS Format: No Format Specified

Grainger Item Number(s): 6NNU8, 6NNU9, 6NNV0, 6NNV1

Manufacturer Model Number(s):

MSDS Table of Contents

Click the desired link below to jump directly to that section in the MSDS.

MATERIAL SAFETY DATA SHEET

S
SPECTRUM(R*)

ISO 9002 CERTIFIED
GARDENA, CA
NEW BRUNSWICK, NJ

NFPA:
3
0
0

OXY

HMIS:
HEALTH HAZARD 3
FIRE HAZARD 0
REACTIVITY 0

PERSONAL PROTECTIVE EQUIPMENT:
FACE SHIELD
LAB COAT
ORGANIC RESPIRATOR
GLOVES
BOOTS

SEE SECTION 15.

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMMON NAME/TRADE NAME: SODIUM HYPOCHLORITE, 12%

MANUFACTURER:
SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

COMMERCIAL NAME(S): CHLORINE BLEACH, SODA BLEACH

SYNONYM: SODIUM HYPOCHLORITE, SOLUTION, 12% AVAILABLE CHLORINE.

CHEMICAL NAME: NOT APPLICABLE.

CHEMICAL FAMILY: OXIDIZING AGENT.

CHEMICAL FORMULA: NOT APPLICABLE.

SUPPLIER:
SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

CATALOG NUMBER(S).: RK037, S1316

CAS#: MIXTURE.

RTECS: NOT APPLICABLE.

TSCA:
TSCA 8(B) INVENTORY: SODIUM HYPOCHLORITE; WATER

CI#: NOT APPLICABLE.

IN CASE OF EMERGENCY:
CHEMTREC (24HR): 800-424-9300

CALL: (310) 516-8000

SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

NAME CAS # EXPOSURE LIMITS % BY WEIGHT
TWA STEL CEIL
(MG/M3) (MG/M3) (MG/M3)

1) SODIUM HYPOCHLORITE 7681-52-9 1 12-14

2) SODIUM HYDROXIDE 1310-73-2 2 2 1

3) WATER 7732-18-5 85-87

TOXICOLOGICAL DATA ON INGREDIENTS:

SODIUM HYPOCHLORITE:

ORAL (LD50):
ACUTE: 5800 MG/KG (MOUSE). 8910 MG/KG (RAT).

SODIUM HYDROXIDE:
LD50: NOT AVAILABLE.
LC50: NOT AVAILABLE.

SECTION 3. HAZARDS IDENTIFICATION

POTENTIAL ACUTE HEALTH EFFECTS:
VERY HAZARDOUS IN CASE OF SKIN CONTACT (IRRITANT), OF EYE CONTACT (IRRITANT), OF INGESTION, OF INHALATION. HAZARDOUS IN CASE OF SKIN CONTACT (CORROSIVE), OF EYE CONTACT (CORROSIVE). LIQUID OR SPRAY MIST MAY PRODUCE TISSUE DAMAGE PARTICULARLY ON MUCOUS MEMBRANES OF EYES, MOUTH AND RESPIRATORY TRACT. SKIN CONTACT MAY PRODUCE BURNS. INHALATION OF THE SPRAY MIST MAY PRODUCE SEVERE IRRITATION OF RESPIRATORY TRACT, CHARACTERIZED BY COUGHING, CHOKING, OR SHORTNESS OF BREATH. PROLONGED EXPOSURE MAY RESULT IN SKIN BURNS AND ULCERATIONS. OVER-EXPOSURE BY INHALATION MAY CAUSE RESPIRATORY IRRITATION. INFLAMMATION OF THE EYE IS CHARACTERIZED BY REDNESS, WATERING, AND ITCHING. SKIN INFLAMMATION IS CHARACTERIZED BY ITCHING, SCALING, REDDENING, OR, OCCASIONALLY, BLISTERING.

POTENTIAL CHRONIC HEALTH EFFECTS:
SLIGHTLY HAZARDOUS IN CASE OF SKIN CONTACT (SENSITIZER).

CARCINOGENIC EFFECTS:
CLASSIFIED 3 (NOT CLASSIFIABLE FOR HUMAN.) BY IARC (SODIUM HYPOCHLORITE).

MUTAGENIC EFFECTS:
MUTAGENIC FOR BACTERIA AND/OR YEAST. (SODIUM HYPOCHLORITE).

TERATOGENIC EFFECTS: NOT AVAILABLE.

DEVELOPMENTAL TOXICITY: NOT AVAILABLE.

THE SUBSTANCE MAY BE TOXIC TO LUNGS, MUCOUS MEMBRANES, UPPER RESPIRATORY TRACT, SKIN, EYES.

REPEATED OR PROLONGED EXPOSURE TO THE SUBSTANCE CAN PRODUCE TARGET ORGANS DAMAGE. REPEATED OR PROLONGED CONTACT WITH SPRAY MIST MAY PRODUCE CHRONIC EYE IRRITATION AND SEVERE SKIN IRRITATION. REPEATED OR PROLONGED EXPOSURE TO SPRAY MIST MAY PRODUCE RESPIRATORY TRACT IRRITATION LEADING TO FREQUENT ATTACKS OF BRONCHIAL INFECTION.

SECTION 4. FIRST AID MEASURES

EYE CONTACT:
CHECK FOR AND REMOVE ANY CONTACT LENSES. IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. COLD WATER MAY BE USED. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT:
IN CASE OF CONTACT, IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. COVER THE IRRITATED SKIN WITH AN EMOLLIENT. COLD WATER MAY BE USED. WASH CLOTHING BEFORE REUSE. THOROUGHLY CLEAN SHOES BEFORE REUSE. GET MEDICAL ATTENTION IMMEDIATELY.

SERIOUS SKIN CONTACT:
WASH WITH A DISINFECTANT SOAP AND COVER THE CONTAMINATED SKIN WITH AN ANTI-BACTERIAL CREAM. SEEK MEDICAL ATTENTION.

INHALATION:
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION IMMEDIATELY.

SERIOUS INHALATION:
EVACUATE THE VICTIM TO A SAFE AREA AS SOON AS POSSIBLE. LOOSEN TIGHT CLOTHING SUCH AS A COLLAR, TIE, BELT OR WAISTBAND. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF THE VICTIM IS NOT BREATHING, PERFORM MOUTH-TO-MOUTH RESUSCITATION. SEEK MEDICAL ATTENTION.

INGESTION:
DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. LOOSEN TIGHT CLOTHING SUCH AS A COLLAR, TIE, BELT OR WAISTBAND. GET MEDICAL ATTENTION IF SYMPTOMS APPEAR.

SERIOUS INGESTION: NOT AVAILABLE.

SECTION 5. FIRE AND EXPLOSION DATA

FLAMMABILITY OF THE PRODUCT: NON-FLAMMABLE.

AUTO-IGNITION TEMPERATURE: NOT APPLICABLE.

FLASH POINTS: NOT APPLICABLE.

FLAMMABLE LIMITS: NOT APPLICABLE.

PRODUCTS OF COMBUSTION: NOT AVAILABLE.

FIRE HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES:
COMBUSTIBLE MATERIALS, ORGANIC MATERIALS, METALS

EXPLOSION HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES:
SLIGHTLY EXPLOSIVE IN PRESENCE OF HEAT.
NON-EXPLOSIVE IN PRESENCE OF OPEN FLAMES AND SPARKS, OF SHOCKS.

FIRE FIGHTING MEDIA AND INSTRUCTIONS: NOT APPLICABLE.

SPECIAL REMARKS ON FIRE HAZARDS:
RELEASES CHLORINE WHEN HEATED ABOVE 35 DEG. C.

THE SUBSTANCE ITSELF IS NON-COMBUSTIBLE AND DOES NOT BURN. HOWEVER, WHEN HEATED TO DECOMPOSITION IT EMITS CORROSIVE AND/OR TOXIC FUMES OF Na2O AND CHLORIDES (HYDROGEN CHLORIDE), CHLORINE, HYPOCHLOROUS ACID, HYDROCHLORIC ACID. ADDITIONAL DECOMPOSITION PRODUCTS, WHICH DEPENDS UPON TEMPERATURE, pH, AND TIME, ARE SODIUM CHLORIDE, SODIUM CHLORATE AND OXYGEN.

MAY IGNITE COMBUSTIBLES.

IT MAY BE A FIRE RISK IN CONTACT WITH ORGANIC MATERIALS.

CONTACT WITH METALS MAY EVOLVE FLAMMABLE HYDROGEN GAS.

SPECIAL REMARKS ON EXPLOSION HAZARDS:
ANYDROUS SODIUM HYPOCHLORITE IS VERY EXPLOSIVE.

PRIMARY AMINES AND CALCIUM HYPOCHLORITE OR SODIUM HYPOCHLORITE REACT TO FORM NORMAL CHLOROAMINES, WHICH ARE EXPLOSIVE.

INTERACTION OF ETHYLENEIMINE WITH SODIUM (OR OTHER) HYPOCHLORITE GIVES THE EXPLOSIVE N-CHLORO CMPD.

REMOVAL OF FORMIC ACID FROM INDUSTRIAL WASTE STREAMS WITH SODIUM HYPOCHLORITE SOLN BECOMES EXPLOSIVE AT 55 DEG C.

SEVERAL EXPLOSIONS INVOLVING METHANOL AND SODIUM HYPOCHLORITE WERE ATTRIBUTED TO FORMATION OF METHYL HYPOCHLORITE, ESPECIALLY IN PRESENCE OF ACID OR OTHER ESTERIFICATION CATALYST.

USE OF SODIUM HYPOCHLORITE SOLN TO DESTROY ACIDIFIED BENZYL CYANIDE RESIDUES CAUSED A VIOLENT EXPLOSION, THOUGHT TO HAVE BEEN DUE TO FORMATION OF NITROGEN TRICHLORIDE.

(SODIUM HYPOCHLORITE)

SECTION 6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL:
DILUTE WITH WATER AND MOP UP, OR ABSORB WITH AN INERT DRY MATERIAL AND PLACE IN AN APPROPRIATE WASTE DISPOSAL CONTAINER.

IF NECESSARY: NEUTRALIZE THE RESIDUE WITH A DILUTE SOLUTION OF ACETIC ACID.

LARGE SPILL: CORROSIVE LIQUID. OXIDIZING MATERIAL.

STOP LEAK IF WITHOUT RISK. ABSORB WITH DRY EARTH, SAND OR OTHER NON-COMBUSTIBLE MATERIAL. DO NOT GET WATER INSIDE CONTAINER. AVOID CONTACT WITH A COMBUSTIBLE MATERIAL (WOOD, PAPER, OIL, CLOTHING.). KEEP SUBSTANCE DAMP USING WATER SPRAY. DO NOT TOUCH SPILLED MATERIAL. USE WATER SPRAY CURTAIN TO DIVERT VAPOR DRIFT. PREVENT ENTRY INTO SEWERS, BASEMENTS OR CONFINED AREAS; DIKE IF NEEDED. CALL FOR ASSISTANCE ON DISPOSAL.

NEUTRALIZE THE RESIDUE WITH A DILUTE SOLUTION OF ACETIC ACID.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS:
KEEP CONTAINER DRY. KEEP AWAY FROM HEAT. KEEP AWAY FROM SOURCES OF IGNITION. KEEP AWAY FROM COMBUSTIBLE MATERIAL. DO NOT INGEST. DO NOT BREATHE GAS/FUMES/ VAPOR/SPRAY. NEVER ADD WATER TO THIS PRODUCT. IN CASE OF INSUFFICIENT VENTILATION, WEAR SUITABLE RESPIRATORY EQUIPMENT. IF INGESTED, SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THE CONTAINER OR THE LABEL. AVOID CONTACT WITH SKIN AND EYES. KEEP AWAY FROM INCOMPATIBLES SUCH AS REDUCING AGENTS, COMBUSTIBLE MATERIALS, ORGANIC MATERIALS, METALS, ACIDS.

STORAGE:
KEEP CONTAINER TIGHTLY CLOSED. KEEP CONTAINER IN A COOL, WELL-VENTILATED AREA. SEPARATE FROM ACIDS, ALKALIES, REDUCING AGENTS AND COMBUSTIBLES. SEE NFPA 43A, CODE FOR THE STORAGE OF LIQUID AND SOLID OXIDIZERS. STORE AT AMBIENT TEMPERATURES BELOW 35 DEG. C. DO NOT STORE ABOVE 35 DEG. C (95 DEG. F). AT TEMPERATURES ABOVE 35 DEG C., IT WILL DECOMPOSE AND RELEASE CHLORINE. IN ORDER TO PROLONG THE SHELF-LIFE, IT CAN BE REFRIGERATED AND STORED AT TEMPERATURES FROM 4 DEG. C TO 20 DEG. C

AIR SENSITIVE. SENSITIVE TO LIGHT. STORE IN LIGHT-RESISTANT CONTAINERS.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:
PROVIDE EXHAUST VENTILATION OR OTHER ENGINEERING CONTROLS TO KEEP THE AIRBORNE CONCENTRATIONS OF VAPORS BELOW THEIR RESPECTIVE THRESHOLD LIMIT VALUE.

PERSONAL PROTECTION:
FACE SHIELD. LAB COAT. VAPOR RESPIRATOR. BE SURE TO USE AN APPROVED/CERTIFIED RESPIRATOR OR EQUIVALENT. GLOVES. BOOTS.

PERSONAL PROTECTION IN CASE OF A LARGE SPILL:

SPLASH GOGGLES. FULL SUIT. VAPOR RESPIRATOR. BOOTS. GLOVES. A SELF CONTAINED BREATHING APPARATUS SHOULD BE USED TO AVOID INHALATION OF THE PRODUCT. SUGGESTED PROTECTIVE CLOTHING MIGHT NOT BE SUFFICIENT; CONSULT A SPECIALIST BEFORE HANDLING THIS PRODUCT.

EXPOSURE LIMITS:

SODIUM HYPOCHLORITE:
TWA: 1
CEIL: 1 (PPM AS Cl2)
STEL: 1 (PPM AS Cl2) FROM ACGIH (TLV) (UNITED STATES)

SODIUM HYDROXIDE:
STEL: 2 (MG/M3) FROM ACGIH (TLV) (UNITED STATES)
TWA: 2
CEIL: 2 (MG/M3) FROM OSHA (PEL) (UNITED STATES)
CEIL: 2 (MG/M3) FROM NIOSH

CONSULT LOCAL AUTHORITIES FOR ACCEPTABLE EXPOSURE LIMITS.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE AND APPEARANCE: LIQUID. (CLEAR LIQUID.)

MOLECULAR WEIGHT: NOT APPLICABLE.

pH (1% SOLN/WATER):

pH OF 12% SOLUTION (100 G/L): 12 (BASIC.)

BOILING POINT: THE LOWEST KNOWN VALUE IS 100 DEG. C (212 DEG. F) (WATER).

MELTING POINT:
FREEZING POINT: -23.889 DEG. C (-11 DEG. F) - -19.4 C (-3 F)

CRITICAL TEMPERATURE: NOT AVAILABLE.

SPECIFIC GRAVITY: 1.165 - 1.19 (WATER = 1)

VAPOR PRESSURE: 1.6 KPA (@ 20 DEG. C)

VAPOR DENSITY: THE HIGHEST KNOWN VALUE IS 0.62 (AIR = 1) (WATER).

VOLATILITY: NOT AVAILABLE.

ODOR THRESHOLD: NOT AVAILABLE.

WATER/OIL DIST. COEFF.: NOT AVAILABLE.

IONICITY (IN WATER): NOT AVAILABLE.

DISPERSION PROPERTIES: SEE SOLUBILITY IN WATER.

SOLUBILITY: EASILY SOLUBLE IN COLD WATER, HOT WATER.

ODOR: CHARACTERISTIC. CHLORINE-LIKE (STRONG.)

TASTE: NOT AVAILABLE.

COLOR: GREEN TO YELLOWISH. (LIGHT.)

SECTION 10. STABILITY AND REACTIVITY DATA

STABILITY: THE PRODUCT IS STABLE.

INSTABILITY TEMPERATURE: NOT AVAILABLE.

CONDITIONS OF INSTABILITY: INCOMPATIBLE MATERIALS, LIGHT, AIR, HEAT

INCOMPATIBILITY WITH VARIOUS SUBSTANCES:
SLIGHTLY REACTIVE TO REACTIVE WITH REDUCING AGENTS, COMBUSTIBLE MATERIALS, ORGANIC MATERIALS, METALS, ACIDS.

CORROSIVITY:
EXTREMELY CORROSIVE IN PRESENCE OF ALUMINUM.

MODERATELY CORROSIVE IN PRESENCE OF STAINLESS STEEL(304), OF STAINLESS STEEL(316).

NON-CORROSIVE IN PRESENCE OF GLASS.

SPECIAL REMARKS ON REACTIVITY:
DECOMPOSED BY CARBON DIOXIDE FROM AIR. SLOWLY DECOMPOSES ON CONTACT WITH AIR. UNSTABLE IN AIR UNLESS MIXED WITH SODIUM HYDROXIDE.

INCOMPATIBLE WITH AMMONIUM ACETATE, AMMONIUM CARBONATE, AMMONIUM NITRATE, AMMONIUM OXALATE, AND AMMONIUM PHOSPHATE. DECOMPOSTION OF SODIUM HYPOCHLORITE TAKES PLACE WITHIN A FEW SECONDS WITH THESE SALTS.

ALSO INCOMPATIBLE WITH PRIMARY AMINES, PHENYL ACETONITRILE, ETHYLENEIMINE, METHANOL, ACIDIFIED BENZYL CYANIDE, FORMIC ACID, UREA, NITRO COMPOUNDS, METHYLSCELLULOSE, CELLOLUSE, AZIRIDINE, ETHER, AMMONIA.

MIXING THIS PRODUCT WITH CHEMICALS (E.G. AMMONIA, ACIDS, DETERGENTS, ETC.) OR ORGANIC MATTER (E.G. URINE, FECES, ETC.) WILL RELEASE CHLORINE GAS.

CHLORAMINE GAS MAY BE EVOLVED WHEN AMMONIA AND BLEACH ARE MIXED.

DECOMPOSED BY HOT WATER.

SENSITIVE TO LIGHT. EXPOSURE TO LIGHT ACCELERATES DECOMPOSITON.

SPECIAL REMARKS ON CORROSIVITY:
SODIUM HYPOCHLORITE IS EXTREMELY CORROSIVE TO BRASS, AND MODERATELY CORROSIVE TO BRONZE.

THERE IS NO CORROSIVITY INFORMATION FOR COPPER.

POLYMERIZATION: WILL NOT OCCUR.

SECTION 11. TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY: ABSORBED THROUGH SKIN. EYE CONTACT. INHALATION. INGESTION.

TOXICITY TO ANIMALS:
ACUTE ORAL TOXICITY (LD50): 5800 MG/KG (MOUSE). (SODIUM HYPOCHLORITE).

CHRONIC EFFECTS ON HUMANS:

CARCINOGENIC EFFECTS:
CLASSIFIED 3 (NOT CLASSIFIABLE FOR HUMAN.) BY IARC (SODIUM HYPOCHLORITE).

MUTAGENIC EFFECTS:
MUTAGENIC FOR BACTERIA AND/OR YEAST. (SODIUM HYPOCHLORITE).

CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS:
LUNGS, MUCOUS MEMBRANES, UPPER RESPIRATORY TRACT, SKIN, EYES.

OTHER TOXIC EFFECTS ON HUMANS:
VERY HAZARDOUS IN CASE OF SKIN CONTACT (IRRITANT), OF INGESTION, OF INHALATION.

HAZARDOUS IN CASE OF SKIN CONTACT (CORROSIVE), OF EYE CONTACT (CORROSIVE).

SPECIAL REMARKS ON TOXICITY TO ANIMALS: NOT AVAILABLE.

SPECIAL REMARKS ON CHRONIC EFFECTS ON HUMANS:
MAY AFFECT GENETIC MATERIAL (MUTAGENIC) (SODIUM HYPOCHLORITE)

SPECIAL REMARKS ON OTHER TOXIC EFFECTS ON HUMANS:

POTENTIAL HEALTH EFFECTS:
MAY CAUSE SEVERE IRRITATION AND BURNS TO SKIN AND EYES.

CONTACT WITH SKIN MAY ALSO CAUSE VESICULAR ERUPTIONS AND ECZEMATOID DERMATITIS WHICH BECOMES EVIDENT UPON RE-EXPOSURE.

PROLONGED OR REPEATED EYE CONTACT MAY CAUSE CONJUNCTIVITIS.

INGESTION CAUSES BURNS TO THE DIGESTIVE TRACT.

SYMPTOMS MAY INCLUDE:
1. PAIN AND INFLAMMATION OF THE MOUTH, PHARYNX, ESOPHAGUS, AND STOMACH, 2. EROSION OF THE MUCOUS MEMBRANES (CHIEFLY OF THE STOMACH), NAUSEA, VOMITING, CHOKING, COUGHING, HEMORRHAGE, 3. CIRCULATORY COLLAPSE WITH COLD AND CLAMMY SKIN (DUE TO METHEMOGLOBINEMIA), CYANOSIS, AND SHALLOW RESPIRATIONS, 4. CONFUSION, DELIRIUM, COMA, 5. EDEMA OF THE PHARYNX, GLOTTIS, LARYNX WITH STRIDOR AND OBSTRUCTION, 6. PERFORATION OF THE ESOPHAGUS, OR STOMACH, WITH MEDIASTINITIS OR PERITONITIS.

INHALATION CAUSES SEVERE RESPIRATORY TRACT IRRITATION AND PULMONARY EDEMA. PROLONGED OR REPEATED INHALATION MAY CAUSE ALLERGIC RESPIRATORY REACTION

(ASTHMA).

(SODIUM HYPOCHLORITE)

SECTION 12. ECOLOGICAL INFORMATION

ECOTOXICITY: IT IS TOXIC TO FISH AND AQUATIC ORGANISMS.

BOD5 AND COD: NOT AVAILABLE.

PRODUCTS OF BIODEGRADATION:
POSSIBLY HAZARDOUS SHORT TERM DEGRADATION PRODUCTS ARE NOT LIKELY. HOWEVER, LONG TERM DEGRADATION PRODUCTS MAY ARISE.

TOXICITY OF THE PRODUCTS OF BIODEGRADATION:
THE PRODUCT ITSELF AND ITS PRODUCTS OF DEGRADATION ARE NOT TOXIC.

SPECIAL REMARKS ON THE PRODUCTS OF BIODEGRADATION: NOT AVAILABLE.

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:
DO NOT DISCHARGE EFFLUENT CONTAINING THIS PRODUCT INTO LAKS, STREAMS, PONDS, ESTUARIES, OCEANS, OR PUBLIC WATERS UNLESS THIS PRODUCT IS SPECIFICALLY IDENTIFIED AND ADDRESSED IN AN NPDES PERMIT. DO NOT DISCHARGE EFFLUENT CONTAINING THIS PRODUCT WITHOUT PREVIOUSLY NOTIFYING THE SEWAGE TREATMENT PLANT AUTHORITY. FOR GUIDANCE, CONTACT YOUR STATE WATER BOARD OR REGIONAL OFFICE OF THE EPA.

REDUCE WITH AGENTS SUCH AS BISULFITES OR FERROUS SALT SOLUTIONS. SOME HEAT WILL BE PRODUCED. KEEP ON ALKALINE SIDE AND DILUTE WITH COPIOUS AMOUNTS OF WATER. THE MAIN END-PRODUCT IS SALT WATER. WASTE MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS.

SECTION 14. TRANSPORT INFORMATION

DOT CLASSIFICATION:
CLASS 8: CORROSIVE MATERIAL

IDENTIFICATION:
UNNA: 1791
HYPOCHLORITE SOLUTION PG: III

SPECIAL PROVISIONS FOR TRANSPORT: NOT AVAILABLE.

DOT (PICTOGRAMS): CORROSIVE, CLASS/DIVISION 8

SECTION 15. OTHER REGULATORY INFORMATION AND PICTOGRAMS

FEDERAL AND STATE REGULATIONS:

CALIFORNIA PROP. 65:

THIS PRODUCT CONTAINS THE FOLLOWING INGREDIENTS FOR WHICH THE STATE OF CALIFORNIA HAS FOUND TO CAUSE BIRTH DEFECTS WHICH WOULD REQUIRE A WARNING UNDER THE STATUTE:
NO PRODUCTS WERE FOUND.

CALIFORNIA PROP. 65:

THIS PRODUCT CONTAINS THE FOLLOWING INGREDIENTS FOR WHICH THE STATE OF CALIFORNIA HAS FOUND TO CAUSE CANCER WHICH WOULD REQUIRE A WARNING UNDER THE STATUTE:
NO PRODUCTS WERE FOUND.

ILLINOIS TOXIC SUBSTANCES DISCLOSURE TO EMPLOYEE ACT: SODIUM HYDROXIDE

ILLINOIS CHEMICAL SAFETY ACT: SODIUM HYDROXIDE

NEW YORK RELEASE REPORTING LIST: SODIUM HYDROXIDE

RHODE ISLAND RTK HAZARDOUS SUBSTANCES: SODIUM HYDROXIDE

PENNSYLVANIA RTK: SODIUM HYPOCHLORITE; SODIUM HYDROXIDE

FLORIDA: SODIUM HYPOCHLORITE

MINNESOTA: SODIUM HYPOCHLORITE; SODIUM HYDROXIDE

MASSACHUSETTS RTK: SODIUM HYPOCHLORITE; SODIUM HYDROXIDE

NEW JERSEY: SODIUM HYPOCHLORITE; SODIUM HYDROXIDE

LOUISIANA SPILL REPORTING: SODIUM HYDROXIDE

CALIFORNIA DIRECTOR'S LIST OF HAZARDOUS SUBSTANCES:
SODIUM HYPOCHLORITE; SODIUM HYDROXIDE

TSCA 8(B) INVENTORY: SODIUM HYPOCHLORITE; SODIUM HYDROXIDE; WATER

CERCLA:

HAZARDOUS SUBSTANCES.:
SODIUM HYPOCHLORITE: 100 LBS. (45.36 KG)
SODIUM HYDROXIDE: 1000 LBS. (453.6 KG)

CALIFORNIA PROPOSITION 65 WARNINGS:

CALIFORNIA PROP. 65:

THIS PRODUCT CONTAINS THE FOLLOWING INGREDIENTS FOR WHICH THE STATE OF CALIFORNIA HAS FOUND TO CAUSE CANCER WHICH WOULD REQUIRE A WARNING UNDER

THE STATUTE:
NO PRODUCTS WERE FOUND.

CALIFORNIA PROP. 65:

THIS PRODUCT CONTAINS THE FOLLOWING INGREDIENTS FOR WHICH THE STATE OF CALIFORNIA HAS FOUND TO CAUSE BIRTH DEFECTS WHICH WOULD REQUIRE A WARNING UNDER THE STATUTE:
NO PRODUCTS WERE FOUND.

OTHER REGULATIONS:

OSHA:
HAZARDOUS BY DEFINITION OF HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

OTHER CLASSIFICATIONS:

WHMIS (CANADA):
CLASS C: OXIDIZING MATERIAL.
CLASS E: CORROSIVE LIQUID.

DSCL (EEC):
R31: CONTACT WITH ACIDS LIBERATES TOXIC GAS.
R34: CAUSES BURNS.

S26:
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

S28: AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH PLENTY OF WATER.

S36/37/39:
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.

S45:
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

HMIS (U.S.A.):
HEALTH HAZARD 3
FIRE HAZARD 0
REACTIVITY 0
PERSONAL PROTECTION

NATIONAL FIRE PROTECTION ASSOCIATION (U.S.A.):
HEALTH 3
FLAMMABILITY 0
REACTIVITY 0
SPECIFIC HAZARD OXY

WHMIS (CANADA) (PICTOGRAMS):
C - OXIDIZING MATERIAL
E - CORROSIVE MATERIAL

DSCL (EUROPE) (PICTOGRAMS):
O: OXIDIATIVE

C: CORROSIVE

TDG (CANADA) (PICTOGRAMS): CLASS 8, CORROSIVES

ADR (EUROPE) (PICTOGRAMS): CLASS 8, CORROSIVES

PROTECTIVE EQUIPMENT:

GLOVES.

LAB COAT.

VAPOR RESPIRATOR. BE SURE TO USE AN APPROVED/CERTIFIED RESPIRATOR OR EQUIVALENT. WEAR APPROPRIATE RESPIRATOR WHEN VENTILATION IS INADEQUATE.

FACE SHIELD.

SECTION 16. OTHER INFORMATION

MSDS CODE: S4115

REFERENCES: NOT AVAILABLE.

OTHER SPECIAL CONSIDERATIONS: NOT AVAILABLE.

VALIDATED BY SONIA OWEN ON: 7/17/2009.

VERIFIED BY: SONIA OWEN.

PRINTED: 7/20/2009.

CALL: (310) 516-8000

NOTICE TO READER:
ALL CHEMICALS MAY POSE UNKNOWN HAZARDS AND SHOULD BE USED WITH CAUTION. THIS MATERIAL SAFETY DATA SHEET (MSDS) APPLIES ONLY TO THE MATERIAL AS PACKAGED. IF THIS PRODUCT IS COMBINED WITH OTHER MATERIALS, DETERIORATES, OR BECOMES CONTAMINATED, IT MAY POSE HAZARDS NOT MENTIONED IN THIS MSDS. IT SHALL BE THE USER'S RESPONSIBILITY TO DEVELOP PROPER METHODS OF HANDLING AND PERSONAL PROTECTION BASED ON THE ACTUAL CONDITIONS OF USE. WHILE THIS MSDS IS BASED ON TECHNICAL DATA JUDGED TO BE RELIABLE, SPECTRUM QUALITY PRODUCTS, INC. ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE INFORMATION CONTAINED HEREIN.