

2. COMPOSITION/INFORMATION ON INGREDIENTS (Continued)

1310-73-2 Sodium hydroxide (Na(OH))

EXPOSURE LIMITS	PERCENTAGE
PEL:2 mg/m3, Ceiling	VOL ND
TLV:2 mg/m3, Ceiling	WT 5.50-51.50

COMMON NAMES:
CAUSTIC SODA (MW 40.00)

Listed On(List Legend Below):
00 13 18 21 22 50 51

7647-14-5 Sodium chloride (NaCl)

EXPOSURE LIMITS	PERCENTAGE
PEL:None established	VOL ND
TLV:None established	WT 0-1.30

COMMON NAMES:
SALT

Listed On(List Legend Below):
00 22 23 50 51

7775-09-9 Chloric acid, sodium salt

EXPOSURE LIMITS	PERCENTAGE
PEL:Not Established	VOL ND
TLV:Not Established	WT 0-0.30

COMMON NAMES:
SODIUM CHLORATE

Listed On(List Legend Below):
00 12 21 22 50 51

LIST LEGEND

00 TSCA INVENTORY	12 PA HAZARDOUS SUBSTANCE
13 PA ENVIROMENTAL HAZ SUBSTANCE	18 NY HAZARDOUS SUBSTANCES
19 PA REQUIREMENT- 3% OR GREATER	21 NJ SPECIAL HEALTH HAZ SUB
22 CANADIAN DOMESTIC SUB LIST	23 NJ REQUIREMENT- 1% OR GREATER
50 PHILIPPINES INVENTORY (PICCS)	51 EINECS

3. HAZARDS IDENTIFICATION

***** EMERGENCY OVERVIEW *****
*
* MAY CAUSE BURNS TO THE EYES, SKIN, AND MUCOUS MEMBRANES. MAY *
* CAUSE PERMANENT EYE DAMAGE. INHALATION OF DUST, MIST, OR SPRAY *
* CAN CAUSE SEVERE LUNG DAMAGE. CAN REACT VIOLENTLY WITH WATER, *
* ACIDS AND OTHER SUBSTANCES. *
*
* Clear liquid with no distinct odor *

3. HAZARDS IDENTIFICATION (Continued)

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY:

Inhalation, Ingestion.

TARGET ORGANS:

Eyes, Skin, Respiratory Tract, Gastrointestinal Tract.

IRRITANCY:

Liquid, vapors or mist may be irritating to eyes, skin and respiratory tract.

SENSITIZING CAPABILITY:

None known.

REPRODUCTIVE EFFECTS:

None known.

CANCER INFORMATION:

None known.

SHORT-TERM EXPOSURE (ACUTE)

INHALATION:

Exposure to vapor, mist or liquid can produce burns of the respiratory tract.

Severe exposures could result in chemical pneumonia.

EYES:

Contact can cause severe damage including burns and blindness.

The severity of the effects depend on concentration and how soon after exposure the eyes are washed.

SKIN:

Corrosive.

Contact may cause burns and tissue destruction.

Note that irritation may follow an initial latency (delay between the time that the exposure occurs and when the sense of irritation starts). The latent period can vary as much as hours for a dilute solution (0.04%) to minutes with more concentrated solutions (25-50%).

Prolonged or repeated contact, even to dilute concentrations, can cause a high degree of tissue destruction.

INGESTION:

Corrosive.

3. HAZARDS IDENTIFICATION (Continued)

Severe burns and complete tissue perforation of mucous membranes of mouth, throat and stomach.

REPEATED EXPOSURE (CHRONIC)

No known chronic effects.

SYNERGISTIC MATERIALS:

None known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None known.

4. FIRST AID MEASURES

EYES:

IMMEDIATELY FLUSH EYES WITH A DIRECTED STREAM OF WATER for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN:

Flush thoroughly with cool water under shower while removing contaminated clothing and shoes. Discard non-rubber shoes. Wash clothing before reuse. GET MEDICAL ATTENTION AS SOON AS POSSIBLE.

INHALATION:

Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION:

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. (If available, give several glasses of milk.) If vomiting occurs spontaneously, keep airway clear and give more water. GET MEDICAL ATTENTION IMMEDIATELY.

NOTES TO PHYSICIAN:

No specialized procedures. Treat for clinical symptoms.

5. FIRE FIGHTING MEASURES

Flash Point: Non-flammable

Method: Non-flammable

5. FIRE FIGHTING MEASURES (Continued)

Autoignition Temperature: Non-flammable

FLAMMABLE LIMITS IN AIR, BY % VOLUME

Upper: Non-flammable

Lower: Non-flammable

EXTINGUISHING MEDIA:

Non-flammable / Non-combustible.

Use water spray to keep fire-exposed containers cool.

FIRE FIGHTING PROCEDURES:

Use water to cool containers but avoid getting water into containers. Wear NIOSH/MSHA approved positive-pressure self-contained breathing apparatus and full protective clothing.

FIRE AND EXPLOSION HAZARD:

Direct contact with water can cause a violent exothermic reaction.

SENSITIVITY TO MECHANICAL IMPACT:

Not sensitive.

SENSITIVITY TO STATIC DISCHARGE:

Not sensitive.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Evacuate unnecessary personnel.

Follow protective measures provided under Personal Protection in Section 8.

ENVIRONMENTAL PRECAUTIONS:

According to 40 CFR 302 Table 302.4 (CERCLA), environmental releases that exceed the RQ must be reported to the National Response Center by calling 800-424-8802 (202-426-2675) and the State Emergency Response Commission and the Local Emergency Planning Committee (40 CFR 355.40) as appropriate.

Contain liquids and prevent discharges to streams or sewers, control or stop the loss of volatile materials to the atmosphere. Large leaks may require environmental consideration and possible evacuation. Do not apply water to the leak. Spills or releases should be reported, if required, to the appropriate local, state and federal agencies.

Contain spill with dike to prevent entry into sewers or waterways.

CAUTION: This product may react strongly with acids and water.

6. ACCIDENTAL RELEASE MEASURES (Continued)

NEVER FLUSH TO SEWER.

METHODS FOR CLEANING UP:

Dry material can be shoveled up, liquid material can be removed with a vacuum truck. Neutralize remaining traces with any dilute inorganic acid (hydrochloric, sulfuric or acetic acid). Flush spill area with water followed by a liberal covering of sodium carbonate. All clean-up material should be removed for proper treatment or disposal. Spills on other than pavement (eg. dirt or sand) may be handled by removing the affected soil and placing in approved containers.

7. HANDLING AND STORAGE

HANDLING:

Avoid breathing mist.

Avoid breathing vapors.

Hazardous carbon monoxide gas can form upon contact with food and beverage products in enclosed spaces and can cause death. Follow appropriate tank entry procedures (ANSI Z117.1).

Containers, even those that have been emptied, will retain product residue and vapor and should be handled as if they were full.

Do not get in eyes, on skin or clothing.

Do not take internally

Keep away from acids, to avoid possible violent reaction.

Wash contaminated clothing before reuse.

Wash thoroughly after handling; exposure can cause burns which are not immediately painful or visible.

Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the MSDS.

If product is added too rapidly, or without stirring, and becomes concentrated at bottom of mixing vessel, excessive heat may be generated, resulting in DANGEROUS boiling and spattering, and a possible IMMEDIATE AND VIOLENT ERUPTION of highly caustic solution.

SPECIAL MIXING AND HANDLING INSTRUCTIONS:

Considerable heat is generated when product is mixed with water. Therefore, when making solutions always carefully follow these steps:

ALWAYS wear ALL protective clothing described above. NEVER add water to product. ALWAYS add product, with constant stirring, slowly to surface of lukewarm (80-100°F) water, to assure product is being completely dissolved as it is added.

7. HANDLING AND STORAGE (Continued)

Product can react EXPLOSIVELY with acids, aldehydes, and many other organic chemicals, add product VERY gradually, while stirring constantly. If product is added too rapidly, or without stirring, and becomes concentrated at bottom of mixing vessel, excessive heat may be generated, resulting in DANGEROUS boiling and spattering, and a possible IMMEDIATE AND VIOLENT ERUPTION of highly caustic solution.

ALWAYS empty and clean containers of all residues before adding product, to avoid possible EXPLOSIVE reaction between product and unknown residue.

Returnable containers should be shipped in accordance with supplier's recommendations. Return shipments should comply with all federal, state, and DOT regulations. All residue should be removed from containers prior to disposal.

Avoid contact with aluminum, tin, zinc, and alloys containing these metals. Avoid contact with leather, wool, acids, organic halogen compounds and organic nitro compounds.

STORAGE:

Keep container tightly closed and properly labeled.

Dike storage containers to contain 110% of tank volume.

Under normal conditions, this product can be stored satisfactorily in mild steel without an interior lining. Aluminum is not recommended for storage and handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

No special ventilation required under normal use.

NOTE: Where carbon monoxide may be generated, special ventilation may be required.

Where engineering controls are not feasible use adequate local exhaust ventilation wherever mist, spray or vapor may be generated.

PERSONAL PROTECTION

RESPIRATORY:

Respiratory protection is not required under normal use.

Wear a NIOSH/MSHA approved respirator following manufacturer's recommendations, where airborne contaminants may occur.

EYE/FACE:

Wear chemical safety goggles plus full face shield to protect against splashing when appropriate (ANSI Z87.1).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)

SKIN:

Wear chemical resistant gloves such as rubber, neoprene or vinyl.

Wash contaminated clothing and dry before reuse.

Whenever there is a possibility of splash or contact wear a chemical resistant full body suit and boots.

OTHER:

Standard work clothing closed at the neck and wrists.

Discard shoes that cannot be decontaminated.

Emergency shower and eyewash facility should be in close proximity (ANSI Z358.1).

9. PHYSICAL AND CHEMICAL PROPERTIES

	Concentration, weight %					
Physical State:	Liquid	10	20	30	40	50
Boiling Pt @ 760 mm Hg, °C	110	113	119	129	144	
Freezing Pt °C	-10	-32	0	15	12	
Vapor Press., mm Hg @ 60°C	135	110	76	46	13	
Spec. Grav. @ 15.6°C	1.11	1.22	1.33	1.43	1.53	
Density, lb/gal @ 15.6 C	9.27	10.20	11.11	11.97	12.76	
Sol. in H2O, % by Wt. Completely Soluble.					
Vapor Density Not Applicable.					
Appearance and Odor	Clear liquid with no distinct odor.					
Odor Threshold (ppm)	Not available					
Evaporation Rate	Not known					
Coefficient Water/Oil Distribution	Not available					
pH	7.5% solution has pH 14.0					
Appearance and Odor:	Clear liquid with no distinct odor					
Solubility in Water (% by wt.):	Not available					
VOC (g/l. by wt.):	0					

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:

STABLE UNSTABLE

REACTS WITH:

<input checked="" type="checkbox"/> AIR	<input type="checkbox"/> OXIDIZERS	<input checked="" type="checkbox"/> METALS
<input checked="" type="checkbox"/> WATER	<input checked="" type="checkbox"/> ACIDS	<input checked="" type="checkbox"/> OTHER
<input type="checkbox"/> HEAT	<input type="checkbox"/> ALKALIS	<input type="checkbox"/> NONE

HAZARDOUS POLYMERIZATION:

OCCURS WILL NOT OCCUR

COMMENTS:

Avoid direct contact with water.

Product is corrosive to tin, aluminum, zinc and alloys containing these metals and will react with these metals in powder form. Avoid contact with leather, wool, acids, organic halogen compounds, or organic nitro compounds. Hazardous carbon monoxide gas can form upon contact with reducing sugars, food and beverage products in enclosed spaces and can cause death. Follow appropriate tank entry procedures.

See Handling and Storage (Section 7).

HAZARDOUS DECOMPOSITION PRODUCTS:

None.

Revised

11. TOXICOLOGICAL INFORMATION

7775-09-9 Chloric acid, sodium salt

ACUTE ORAL LD50 :	(rat)	1200 mg/kg
PRIMARY SKIN IRRITATION :	(rabbit)	mild
PRIMARY EYE IRRITATION :	(rabbit)	mild

1310-73-2 Sodium hydroxide (Na(OH))

ACUTE DERMAL LD50 :	(rabbit)	1350 mg/kg
PRIMARY SKIN IRRITATION :	(rabbit)	severe
PRIMARY EYE IRRITATION :	(rabbit)	severe

7647-14-5 Sodium chloride (NaCl)

ACUTE ORAL LD50 :	(rat)	3000 mg/kg
PRIMARY SKIN IRRITATION :	(rabbit)	mild
PRIMARY EYE IRRITATION :	(rabbit)	moderate

Revised

12. ECOLOGICAL INFORMATION

1310-73-2 Sodium hydroxide (Na(OH))

AQUATIC ECOTOX DATA

Fish:

LC50 (96 hr.) (Fathead minnow) 179 mg/L*

Invertebrates:

EC50 (48 hr.) (Water flea) 42 mg/L*

Plants:

EC50 (96 hr.) (Green Algae) 41 mg/L*

* data represents a 50% NaOH aqueous solution

TERRESTRIAL ECOTOX DATA

Wildlife:

LD50 (ip) (Mouse) 40 mg/Kg

LDLo (Oral) (Rabbit) 500 mg/Kg

ENVIRONMENTAL FATE DATA

Biotic:

Biodeg. Inorganic, not subject to biodegradation

This material has produced slight to moderate toxicity in laboratory tests with aquatic organisms. This material is strongly alkaline. If released to surface water, this compound will cause the pH to rise dependent on the buffering capacity of the waterbody. Aquatic organisms become increasingly stressed as pH exceeds 9, with many aquatic species being intolerant of pH in excess of 10. This compound does not bioaccumulate in organisms. Due caution should be exercised to prevent the accidental release of this material to the environment.

7647-14-5 Sodium chloride (NaCl)

AQUATIC ECOTOX DATA

Fish:

LC50 (96 hr.) (Fathead minnow) 7,650 mg/L

LC50 (96 hr.) (Bluegill sunfish) 12,946 mg/L

Invertebrates:

LC50 (48 hr.) (Water flea) 3,310 mg/L

LC50 (48 hr.) (Mosquito larva) 10,200 mg/L

EC50 (48 hr.) (Pond snail) 3,388 mg/L

LC50 (7 day) (Water flea) 1,770 mg/L*

*mean value for five laboratory tests

IC50Repro(7 day)(Water flea) 1,340 mg/L*

*mean value for five laboratory tests

Amphibians:

Mortality(5 day)(Frog) 46.66%@1,800 mg/L*
(* concentration as Cl)

Mortality(5 day)(Frog) 46.66%@1,200 mg/L*
(* concentration as Na)

Plants:

EC50 (32 day) (Water-milfoil) 5,962-8,183 mg/L

12. ECOLOGICAL INFORMATION (Continued)

TERRESTRIAL ECOTOX DATA

Wildlife:

LD50 (oral) (Rat as surrogate) 3,000 mg/Kg

Plants:

No data available

ENVIRONMENTAL FATE DATA

Sodium chloride (NaCl) is a naturally occurring inorganic salt in surface waters, groundwater and the earth's crust. Biological systems typically maintain a necessary osmotic balance of critical salts including sodium chloride. The tolerance of aquatic species to NaCl is variable depending upon whether the organism is freshwater or marine, or if the organism is capable of moving between freshwater and marine environments. In general NaCl has low to moderate toxicity to aquatic or terrestrial species. Continuous discharge of salt to freshwater environments can lead to increased salinity over time. Bulk releases could impact salt intolerant aquatic species and sessile terrestrial lifeforms. Due care should be taken to avoid the accidental release of this material to aquatic or terrestrial environments.

7775-09-9 Chloric acid, sodium salt

AQUATIC ECOTOX DATA

Fish:

LC50 (96 hr.) (Fathead minnow) 4.46-4.56 mg/L

LC50 (96 hr.) (Carp) 330 mg/L

LC50 (48 hr.) (Brown trout) 7.3 mg/L

BCF No data available

Invertebrates:

LC50 (96 hr.) (Aquatic sowbug) 210-280 mg/L

LC50 (96 hr.) (Caddisfly larvae) 270 mg/L

BCF No data available

Amphibians:

No data available

Plants:

Mortality(7 day)(Duckweed) 100 mg/L

TERRESTRIAL ECOTOX DATA

Wildlife:

LD50 (oral) (Rat as surrogate) 1,200 mg/Kg

Plants:

No data available

ENVIRONMENTAL FATE DATA

Biotic:

No data available

Abiotic:

reactive oxidizer of organic material

12. ECOLOGICAL INFORMATION (Continued)

There is limited data on the environmental fate and effects of sodium chlorate (chloric acid, sodium salt). Laboratory test data indicate that sodium chlorate is moderately toxic to aquatic and terrestrial organisms. This material is highly soluble in water. It may persist up to 5 years in locations with low annual rainfall. Due caution should be exercised to avoid the accidental release of this material to aquatic and terrestrial environments.

13. DISPOSAL CONSIDERATIONS

Recovery and reuse, rather than disposal, should be the ultimate goal of handling efforts.

Dispose of all waste and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations.

Ensure that all responsible federal, state, and local agencies receive proper notification of spill and disposal methods.

Shipments of waste materials may be subject to manifesting requirements per applicable regulations. Appropriate disposal will depend on the nature of each waste material and should be done by a competent and properly permitted contractor.

The materials resulting from clean-up operations may be hazardous wastes and, therefore, subject to specific regulations. Package, store, transport, and dispose of all (clean-up) materials and any contaminated equipment in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: Sodium Hydroxide, Solution

DOT HAZARD CLASS: 8

DOT IDENTIFICATION NO: UN1824

DOT PACKING GROUP: II

DOT HAZARDOUS SUBSTANCE: RQ 1,000 Lbs. (Sodium Hydroxide)

DOT MARINE POLLUTANT(S): Not Applicable

ADDITIONAL DESCRIPTION REQUIREMENT: Not Applicable

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, material safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Material Safety Data Sheet available to your employees.

To aid our customers in complying with regulatory requirements, SARA Title III Hazard Categories for this product are indicated below. If the word "YES" appears next to any category, this product may be reportable by you under the requirements of 40.CFR.370. Please consult those regulations for details.

TSCA:

All components of this product that are required to be on the TSCA inventory are listed on the inventory.

SARA/TITLE III HAZARD CATEGORIES:

Immediate(Acute) Health:	<u>YES</u>	Reactive Hazard	<u>YES</u>
Delayed(Chronic) Health:	<u>NO</u>	Sudden Release of Pressure	<u>NO</u>
Fire Hazard:	<u>NO</u>		

HMIS HAZARD RATINGS:

HEALTH HAZARD: 3 FIRE HAZARD: 0 REACTIVITY: 2

STATE REGULATIONS:

See Section 2. COMPOSITION/INFORMATION ON INGREDIENTS list legend for applicable state regulation.

INTERNATIONAL REGULATIONS:

Consult the regulations of the importing country.

CANADA:

WHMIS Hazard Class: D1B, E

16. OTHER INFORMATION

For additional non-emergency health, safety or environmental information telephone (972) 404-2076 or write to:

Occidental Chemical Corporation
Product Stewardship Department
5005 LBJ Freeway
P.O. Box 809050
Dallas, Texas 75380

16. OTHER INFORMATION (Continued)

MSDS LEGEND:

ACGIH = American Conference of Governmental Industrial Hygienists

CAS = Chemical Abstracts Service Registry Number

CEILING = Ceiling Limit (15 Minutes)

CEL = Corporate Exposure Limit

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Limit (OSHA)

STEL = Short Term Exposure Limit (15 Minutes)

TDG = Transportation of Dangerous Goods (Canada)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average (8 Hours)

WHMIS = Worker Hazardous Materials Information System (Canada)

* = See Section 3 Hazards Identification - Repeated Exposure(Chronic) Information

IMPORTANT: The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE, OR OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, STABILITY OR OTHERWISE. This information is not intended to be all-inclusive as to the manner and conditions of use, handling and storage. Other factors may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer. No suggestions for use are intended as, and nothing herein shall be construed as a recommendation to infringe any existing patents or violate any federal, state or local laws, rules, regulations or ordinances.

This Material Safety Data Sheet (MSDS) covers the following materials:

- DIAPHRAGM 50%
- RAYON 25%
- CAUSTIC SODA LIQUID (ALL GRADES)
- SOLUTION 50%
- CAUSTIC SODA MERCURY
- CAUSTIC SODA PURIF.
- CAUSTIC SODA DIAPHRAGM
- MEMBRANE 50%
- PURIFIED 50%
- RAYON 50%
- CAUSTIC SODA MEMBR.
- 50% CAUSTIC SODA-RAYON
- 38% CAUSTIC SODA-RAYON
- 10% CAUSTIC SODA-RAYON
- 18% CAUSTIC SODA-RAYON
- 25% CAUSTIC SODA-RAYON
- 30% CAUSTIC SODA-RAYON

16. OTHER INFORMATION (Continued)

- 30% CAUSTIC SODA-DIAPHRAGM
- 25% CAUSTIC SODA-DIAPHRAGM
- 20% CAUSTIC SODA-RAYON
- 20% CAUSTIC SODA-DIAPHRAGM
- 18% CAUSTIC SODA-DIAPHRAGM
- CAUSTIC SODA 9%
- 50% CAUSTIC SODA-DIAPHRAGM
- 50% CAUSTIC SODA-MEMBRANE
- 50% CHEMICAL CAUSTIC SODA
- 35% CAUSTIC SODA-DIAPHRAGM
- 50% CAUSTIC SODA-PURIFIED
- 45% CAUSTIC SODA-DIAPHRAGM
- 10% CAUSTIC SODA-DIAPHRAGM
- 50% CAUSTIC SODA SOLUTION
- 28% CAUSTIC SODA-DIAPHRAGM
- MEM 50% LIQ CAUS (DRYBA) 50% CAUSTIC SODA-MEMBRANE
- 18% CAUSTIC SODA MEMBRANE
- CAUSTIC SODA LIQUID 80/20
- CAUSTIC SODA LIQUID 70/30
- CAUSTIC SODA LIQUID 60/40
- CAUSTIC SODA LIQUID 50/50
- 30% CAUSTIC SODA-MEMBRANE
- 25% CAUSTIC SODA-MEMBRANE WT
- CAUSTIC SODA-MEMBRANE CELL LIQUOR
- 20% CAUSTIC SODA-MEMBRANE
- 33% CAUSTIC SODA-DIAPHRAGM
- 10% CAUSTIC SODA-MEMBRANE
- 35% CAUSTIC SODA-MEMBRANE
- 50% CAUSTIC DODA DIAPHRAGM
- 15% CAUSTIC SODA-MEMBRANE
- 25% CAUSTIC SODA DIAPHRAGM
- 20% CAUSTIC SODA DIAPHRAGM
- RAYON 25% LCS
- 6% CAUSTIC SODA MEMBRANE
- 40% CAUSTIC SODA DIAPHRAGM
- 50% CAUSTIC SODA DIAPHRAGM
- 50% CAUSTIC SODA RAYON
- 24% CAUSTIC SODA-DIAPHRAGM

17. WARNING LABEL INFORMATION

SIGNAL WORD:

DANGER

HAZARD WARNINGS:

MAY CAUSE BURNS TO THE EYES, SKIN, AND MUCOUS MEMBRANES.

MAY CAUSE PERMANENT EYE DAMAGE.

INHALATION OF DUST, MIST, OR SPRAY CAN CAUSE SEVERE LUNG DAMAGE.

CAN REACT VIOLENTLY WITH WATER, ACIDS AND OTHER SUBSTANCES.

PRECAUTIONS:

Avoid contact with eyes, skin and clothing.

17. WARNING LABEL INFORMATION (Continued)

Avoid breathing dust, vapors or mist.

Do not swallow.

Use with adequate ventilation and wear respiratory protection when exposure to dust, mist, or spray is possible.

Wear safety glasses with side shields or chemical splash goggles, protective clothing and chemical resistant gloves.

Wash thoroughly after handling; exposure can cause burns which are not immediately painful or visible.

Keep container tightly closed and properly labeled.

Product can react violently with water, acids and other substances. See Handling and Storage (Section 7) of the MSDS for instructions before using.

Avoid contact with aluminum, tin, zinc, and alloys containing these metals. Avoid contact with leather, wool, acids, organic halogen compounds and organic nitro compounds.

Hazardous carbon monoxide gas can form upon contact with food and beverage products in enclosed spaces and can cause death. Follow appropriate tank entry procedures (ANSI Z117.1).

FIRST AID

EYES:

IMMEDIATELY FLUSH EYES WITH A DIRECTED STREAM OF WATER for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN:

Flush thoroughly with cool water under shower while removing contaminated clothing and shoes. Discard non-rubber shoes. Wash clothing before reuse. GET MEDICAL ATTENTION AS SOON AS POSSIBLE.

INHALATION:

Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION:

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. (If available, give several glasses of milk.) If vomiting occurs spontaneously, keep airway clear and give more water. GET MEDICAL ATTENTION IMMEDIATELY.

IN CASE OF SPILL OR LEAK:

Leaks should be stopped.

17. WARNING LABEL INFORMATION (Continued)

CAUTION: This product may react strongly with acids and water.

Scoop or sweep up all spilled product and other contaminated material and place in marked disposal containers

Neutralize residue with dilute acid and flush spill area with water followed by a liberal covering of sodium carbonate.

Dispose of wash water and spill by-products according to federal, state and local regulations.

Spills of 1000 pounds or more must be reported to the National Response Center, 1-800-424-8802.

State and local regulations may have additional reporting requirements, check with the proper state and local authorities.

Wear neoprene or rubber gloves.

FIRE:

Material does not burn.

Use extinguishing medium as appropriate for surrounding fire.

HANDLING AND STORAGE:

Considerable heat is generated when product is mixed with water. Therefore, when making solutions always carefully follow these steps:

ALWAYS wear ALL protective clothing described above. NEVER add water to product. ALWAYS add product, with constant stirring, slowly to surface of lukewarm (80-100°F) water, to assure product is being completely dissolved as it is added.

Product can react EXPLOSIVELY with acids, aldehydes, and many other organic chemicals, add product VERY gradually, while stirring constantly. If product is added too rapidly, or without stirring, and becomes concentrated at bottom of mixing vessel, excessive heat may be generated, resulting in DANGEROUS boiling and spattering, and a possible IMMEDIATE AND VIOLENT ERUPTION of highly caustic solution.

ALWAYS empty and clean containers of all residues before adding product, to avoid possible EXPLOSIVE reaction between product and unknown residue.

Returnable containers should be shipped in accordance with supplier's recommendations. Return shipments should comply with all federal, state, and DOT regulations. All residue should be removed from containers prior to disposal.

Containers that have been emptied, will retain product residue and vapor and should be handled as if they were full.

DISPOSAL:

A spill or release of this material may trigger the emergency release reporting requirements under SARA, Title III (40 CFR, Part 355) and/or CERCLA (40 CFR, Part 300). State or local reporting requirements may differ from federal requirements. Consult counsel for further guidance on your responsibilities under these laws.

17. WARNING LABEL INFORMATION (Continued)

Material that cannot be reused or chemically reprocessed should be disposed of in a manner meeting government regulations.

Always package, store, transport and dispose of all waste and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations.

Appropriate disposal will depend on the nature of each waste material and should be done by a competent and properly permitted contractor.

INFORMATION REQUIRED BY FEDERAL, STATE OR LOCAL REGULATIONS:

This Product Contains:

CAS#	NAME
7732-18-5	Water
1310-73-2	Sodium hydroxide (Na(OH))
7647-14-5	Sodium chloride (NaCl)
7775-09-9	Chloric acid, sodium salt

HMIS RATING: HEALTH 3 FLAMMABILITY 0 REACTIVITY 2

LABEL NUMBER: 0198M32415

For Industrial Use Only