

OCCIDENTAL CHEMICAL CORPORATIO -- CAUSTIC SODA LIQUID (ALL GRADES)

=====  
MSDS Safety Information  
=====

FSC: 6810  
NIIN: 01-051-3050  
MSDS Date: 08/20/1998  
MSDS Num: CKJJT  
Product ID: CAUSTIC SODA LIQUID (ALL GRADES)  
MFN: 01  
Responsible Party  
Cage: 0AH54  
Name: OCCIDENTAL CHEMICAL CORPORATION  
Address: 5005 LYNDON B JOHNSON FWY  
City: DALLAS TX 75244-6198  
Info Phone Number: 800-752-5151  
Emergency Phone Number: 800-733-3665  
Resp. Party Other MSDS No.: M32415  
Review Ind: Y  
Published: Y

=====  
Contractor Summary  
=====

Cage: 5P407  
Name: MID STATE CHEMICAL SUPPLY CORP  
Address: 2100 GREENBRIAR LN  
Box: 18227  
City: INDIANAPOLIS IN 46218-3508  
Phone: UNKNOWN  
Cage: 0AH54  
Name: OCCIDENTAL CHEMICAL CORPORATION  
Address: 5005 LYNDON B JOHNSON FWY  
City: DALLAS TX 75244-6198  
Phone: 800-752-5151/972-404-3800

=====  
Item Description Information  
=====

Item Manager: S9G  
Item Name: SODIUM HYDROXIDE SOLUTION  
Unit of Issue: DR  
Quantitative Expression: 0000000055GL  
UI Container Qty: A  
Type of Container: DRUM

=====  
Ingredients  
=====

Cas: 7732-18-5  
RTECS #: ZC0110000  
Name: WATER  
% low Wt: 48.5  
% high Wt: 94.5

-----  
Cas: 1310-73-2  
RTECS #: WB4900000  
Name: SODIUM HYDROXIDE (NA(OH))  
% low Wt: 5.5  
% high Wt: 51.5

OSHA PEL: 2 MG/M3  
ACGIH TLV: NOT ESTABLISHED  
ACGIH STEL: C2 MG/M3  
EPA Rpt Qty: 1000 LBS  
DOT Rpt Qty: 1000 LBS

-----  
Cas: 7647-14-5  
RTECS #: VZ4725000  
Name: SODIUM CHLORIDE (NACL)  
% low Wt: 0.  
% high Wt: 1.3  
-----

Cas: 7775-09-9  
RTECS #: FO0525000  
Name: CHLORIC ACID, SODIUM SALT  
% low Wt: 0.  
% high Wt: .3  
=====

Health Hazards Data  
=====

LD50 LC50 Mixture: ORAL RAT LD50: 1350 MG/KG (NAOH)  
Route Of Entry Inds - Inhalation: YES  
Ingestion: YES

Effects of Exposure: TARGET ORGANS: EYES, SKIN, RESPIRATORY TRACT,  
GASTROINTESTINAL TRACT. 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 & BLINDNESS. THE SEVEREITY DEPENDS ON CONCENTRATION & HOW SOON AFTER  
EXPOSURE THE EYES ARE WASHED. SKIN:CORROSIVE. CONTACT CAN CAUSE BURNS &  
TISSUE DESTRUCTION. PROLONGED OR REPEATED CONTACT CAN CAUSE A HIGH DEGREE  
OF TISSUE DESTRUCTION. INGESTION: CORROSIVE. SEVERE BURNS AND COMPLETE  
TISSUE PERFORATION OF MUCOUS MEMBRANES OF MOUTH, THROAT & STOMACH.

Explanation Of Carcinogenicity: NONE KNOWN.

Signs And Symptions Of Overexposure: INHALATION: BURNS, CHEMICAL PNEUMONIA.  
EYES: BURNS, BLINDNESS. SKIN: SEVERE IRRITATION, BURNS, TISSUE DESTRUCTION.  
INGESTION: SEVERE BURNS OF MUCOUS MEMBRANES OF MOUTH, THROAT AND STOMACH.

Medical Cond Aggravated By Exposure: NONE KNOWN.

First Aid: EYES:IMMEDIATELY FLUSH W/WATER FOR 15 MINUTES, HOLDING LIDS OPEN.  
GET MEDICAL ATTN IMMEDIATELY. SKIN:FLUSH THOROUGHLY WITH COOL WATER UNDER  
SHOWER WHILE REMOVING CONTAMINATED CLOTHES. DISCARD NON-RUBBER SHOES. GET  
MEDICAL ATTN ASAP. INHALATION:REMOVE TO FRESH AIR. IF BREATHING IS  
DIFFICULT, HAVE TRAINED PERSON ADMINISTER OXYGEN. IF RESPIRATION STOPS,  
HAVE TRAINED PERSON GIVE ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL  
ATTN.INGESTED: NOTHING BY MOUTH IF UNCONSCIOUS. DO NOT INDUCE VOMITING!  
GIVE LARGE QUANTITY WATER OR MILK IF AVAILABLE. IF VOMITING OCCURS, KEEP  
AIRWAY CLEAR & GIVE MORE WATER. GET IMMEDIATE MEDICAL ATTN.

=====

Handling and Disposal  
=====

Spill Release Procedures: EVACUATE UNECESSARY PERSONNEL.WEAR PROPER PERSONAL  
PROTECTIVE EQUIPMENT & CLOTHES.CONTAIN LIQUIDS & PREVENT DISCHARGE TO  
STREAMS OR SEWERS.SPILLS OR RELEASES SHOULD BE REPORTED,IF REQUIRED,TO  
APPROPRIATE AUTHORITIES.CONTAIN SPILL WITH DIKE TO REVENT ENTRY TO SEWERS  
OR WATERWAYS.LIQUID MATERIAL CAN BE REMOVED WITH A VACUUM TRUCK. NEUTRALIZE  
TRACE RESIDUE WITH DILUTE INORGANIC ACID. (SEE SUPP DATA)

Neutralizing Agent: ANY DILUTE INORGANIC ACID (HYDROCHLORIC, SULFURIC OR  
ACETIC ACID).

Waste Disposal Methods: RECOVERY OR REUSE, RATHER THAN DISPOSAL SHOULD BE GOSL. DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL HEALTH AND ENVIRONMENTAL REGULATIONS. SHIPMENTS OF WASTE MATERIALS MAY BE SUBJECT TO MANIFESTING REQUIREMENTS PER APPLICABLE REGULATIONS. MATERIALS FROM SPILL CLEAN-UP MAY BE HAZARDOUS WASTES & SUJECT TO REGULATIONS.

Handling And Storage Precautions: AVOID BREATHING MIST. AVOID BREATHING VAPORS.CONTAINERS WILL RETAIN PRODUCT RESIDUE AND VAPOR AND SHOULD BE HANDLED AS IF THEY WERE FULL. DO NOT GET IN EYES, ON SKIN OR CLOTHES. DO NOT TAKE INTERNALLY. KEEP AWAY FROM ACIDS, TO AVOID POSSIB LE VIOLENT REACTION.

Other Precautions: HAZARDOUS CARBON MONOXIDE GAS MAY FORM ON CONTACT WITHFOOD AND BEVERAGE PRODUCTS IN ENCLOSED SPACES AND CAUSE DEATH. FOLLOWAPPROPRIATE TANK ENTRY PROCEDURES (ANSI Z117.1). WEAR PROPER PERSONALPROTECTIVE GEAR.

=====

#### Fire and Explosion Hazard Information

=====

Flash Point Text: 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.

Unusual Fire/Explosion Hazard: DIRECT CONTACT WITH WATER CAN CAUSE A VIOLENT EXOTHERMIC REACTION. SENSITIVITY TO MECHANICAL IMPACT: NOT SENSITIVE. SENSITIVITY TO STATIC DISCHARGE: NOT SENSITIVE.

=====

#### Control Measures

=====

Respiratory Protection: RESPIRATORY PROTECTION IS NOT REQUIRED UNDER NORMAL USE. WEAR A NIOSH/MSHA APPROVED RESPIRATOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, WHERE AIRBORNE CONTAMINANTS MAY OCCUR.

Ventilation: NO SPECIAL VENTILATION REQUIRED UNDER NORMAL USE. WHERE CARBON MONOXIDE GENERATED, SPECIAL VENTILATION MAY BE REQUIRED.

Protective Gloves: CHEMICAL RESISTANT: RUBBER, NEOPRENE OR VINYL.

Eye Protection: CHEMICAL SAFETY GOGGLES PLUS FULL FACE SHIELD TO PROTECT AGAINST SPLASHING.

Other Protective Equipment: STANDARD WORK CLOTHING CLOSED AT NECK AND WRISTS. WHENEVER SPLASHING OR CONTACT MAY OCCUR, WEAR CHEMICAL RESISTANT FULL BODY SUIT AND BOOTS.

Work Hygienic Practices: WASH CONTAMINATED CLOTHING AND DRY BEFORE REUSE. WASH THOROUGHLY AFTER HANDLING; EXPOSURE CAN CAUSE BURNS WHICH ARE NOT IMMEDIATELY PAINFUL OR VISIBLE.

Supplemental Safety and Health: SPILLS CONTINUED: ALL CLEAN-UP MATERIAL SHOULD BE REMOVED FOR PROPER TREATMENT OR DISPOSAL. SPILLS OTHER THAN PAVEMENT (EG.DIRT OR SAND) MAY BE HANDLED BY REMOVING THE AFFECTED SOIL AND PLACING IN APPROVED CONTAINERS.

=====

#### Physical/Chemical Properties

=====

HCC: B1

Boiling Point: =144.C, 291.2F

Melt/Freeze Pt: =12.C, 53.6F

Vapor Pres: 13 MM HG @ 60C

Spec Gravity: 1.53

PH: 14 (7.5% SOLN)

Evaporation Rate & Reference: NOT KNOWN

Solubility in Water: NOT AVAILABLE

Appearance and Odor: CLEAR LIQUID WITH NO DISTINCT ODOR.

=====  
Reactivity Data  
=====

Stability Indicator: YES

Materials To Avoid: WATER, AIR, ACIDS, METALS (ESPECIALLY ALUMINUM, ZINC & ALLOYS CONTAINING THESE METALS), OTHER (LEATHER, WOOL, ORGANIC NITRO COMPOUNDS, ORGANIC HALOGEN COMPOUNDS).

Hazardous Decomposition Products: HAZARDOUS CARBON MONOXIDE GAS CAN FORM UPON CONTACT WITH REDUCING SUGARS, FOOD AND BEVERAGE PRODUCTS IN ENCLOSED SPACES AND CAN CAUSE DEATH.

Hazardous Polymerization Indicator: NO

Conditions To Avoid Polymerization: WILL NOT OCCUR.

=====  
Toxicological Information  
=====

Toxicological Information: CAS# 7775-09-9, CHLORIC ACID, SODIUM SALT: ACUTE ORAL LD50 (RAT): 1200 MG/KG. PRIMARY SKIN IRRITATION: (RABBIT) MILD.

PRIMARY

EYE IRRITATION: (RABBIT) MILD. CAS# 1310-73-2, SODIUM HYDROXIDE (NA(OH)): ACUTE ORAL LD50 (RAT): 1350 MG/KG. PRIMARY SKIN IRRITATION: (RABBIT)

SEVERE.

PRIMARY EYE IRRITATION: (RABBIT) SEVERE. CAS# 7647-14-5, SODIUM CHLORIDE (NACL): ACUTE ORAL LD50 (RAT): 3000 MG/KG. PRIMARY SKIN IRRITATION:

(RABBIT)

MILD. PRIMARY EYE IRRITATION: (RABBIT) MODERATE.

=====  
Ecological Information  
=====

Ecological: 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 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 OF THIS MATERIAL TO THE ENVIRONMENT.

=====  
MSDS Transport Information  
=====

=====  
Regulatory Information  
=====

Sara Title III Information: SARA TITLE III HAZARD CATAGORIES: IMMEDIATE (ACUTE)

HEALTH: YES; DELAYED (CHRONIC) HEALTH: NO; FIRE HAZARD: NO. REACTIVE HAZARD: YES. SUDDEN RELEASE OF PRESSURE.

Federal Regulatory Information: TSCA: ALL COMPONENTS OF THIS PRODUCT THAT ARE REQUIRED TO BE ON THE TSCA INVENTORY ARE LISTED ON THE INVENTORY.

State Regulatory Information: WATER IS LISTED ON TH FOLLOWING STATE REGULATION:

PA REQUIREMENT - 3% OR GREATER. NEW JERSEY REQUIREMENT - 1% OR GREATER. SODIUM HYDROXIDE IS LSTED ON THE FOLLOWING STATE REGULATIONS: PA HAZARDOUS SUBSTANCE. NY HAZARDOUS SUBSTANCES, NEW JER SEY SPECIAL HEALTH HAZARD, MA RIGHT-TO-KNOW. SODIUM CHLORIDE IS LISTED ON THE FOLLOWING STATE

REGULATIONS:

NEW JERSEY REQUIREMENT - 1% OR GREATER.

=====  
Other Information  
=====

Other Information: INTERNATIONAL: WATER IS LISTED ON THE FOLLOWING  
INTERNATIONAL LISTS: PHILIPPINE INVENTORY (PICCS), CANADIAN DSL, EINECS.  
SODIUM HYDROXIDE IS LISTED ON THE FOLLOWING INTERNAIONAL LISTS: CANADIAN  
DSL,EINECS, PHILIPPINE INVENTORY (PICCS). SO DIUM CHLORIDE IS LISTED ON THE  
FOLLOWING INTERNATIONAL LISTS: PHILIPPINE INVENTORY (PICCS), CANADIAN DSL,  
EINECS

=====  
Transportation Information  
=====

Responsible Party Cage: 0AH54  
Trans ID NO: 152588  
Product ID: CAUSTIC SODA LIQUID (ALL GRADES)  
MSDS Prepared Date: 08/20/1998  
Review Date: 04/24/2000  
MFN: 1  
Net Unit Weight: 698.5 LBS  
Multiple KIT Number: 0  
Unit Of Issue: DR  
Container QTY: A  
Type Of Container: DRUM  
Additional Data: US DOT PSN IS PER MSDS. REST ARE BEST GUESS BY DLA- STAFF.

=====  
Detail DOT Information  
=====

DOT PSN Code: NGY  
DOT Proper Shipping Name: SODIUM HYDROXIDE SOLUTION  
Hazard Class: 8  
UN ID Num: UN1824  
DOT Packaging Group: II  
Label: CORROSIVE  
Special Provision: B2,N34,T8  
Packaging Exception: 154  
Non Bulk Pack: 202  
Bulk Pack: 242  
Max Qty Pass: 1 L  
Max Qty Cargo: 30 L  
Vessel Stow Req: A

=====  
Detail IMO Information  
=====

IMO PSN Code: NTB  
IMO Proper Shipping Name: SODIUM HYDROXIDE, SOLUTION  
IMDG Page Number: 8226  
UN Number: 1824  
UN Hazard Class: 8  
IMO Packaging Group: II/III  
Subsidiary Risk Label: -  
EMS Number: 8-06  
MED First Aid Guide NUM: 705

=====  
Detail IATA Information  
=====

IATA PSN Code: WST

IATA UN ID Num: 1824  
IATA Proper Shipping Name: SODIUM HYDROXIDE SOLUTION  
IATA UN Class: 8  
IATA Label: CORROSIVE  
UN Packing Group: II  
Packing Note Passenger: 809  
Max Quant Pass: 1L  
Max Quant Cargo: 30L  
Packaging Note Cargo: 813  
Exceptions: A3

=====  
Detail AFI Information  
=====

AFI PSN Code: WST  
AFI Proper Shipping Name: SODIUM HYDROXIDE, SOLUTION  
AFI Hazard Class: 8  
AFI UN ID NUM: UN1824  
AFI Packing Group: II  
Special Provisions: P5, N34  
Back Pack Reference: A12.3

=====  
HAZCOM Label  
=====

Product ID: CAUSTIC SODA LIQUID (ALL GRADES)  
Cage: 0AH54  
Company Name: OCCIDENTAL CHEMICAL CORPORATION  
Street: 5005 LYNDON B JOHNSON FWY  
City: DALLAS TX  
Zipcode: 75244-6198  
Health Emergency Phone: 800-733-3665  
Label Required IND: Y  
Date Of Label Review: 04/24/2000  
Status Code: A  
Origination Code: F  
Eye Protection IND: YES  
Skin Protection IND: YES  
Signal Word: DANGER  
Respiratory Protection IND: NO  
Health Hazard: Moderate  
Contact Hazard: Severe  
Fire Hazard: None  
Reactivity Hazard: Slight  
Hazard And Precautions: TARGET ORGANS: EYES, SKIN, RESPIRATORY TRACT,  
GASTROINTESTINAL TRACT. MAY CAUS EBURNS TO EYES, SKIN & MUCOUS MEMBRANES.  
MAY CAUSE PERMANENT EYE DAMAGE. INHALATION OF DUST, ,IST OR SPRAY MAY CAUSE  
SEVERE LUNG DAMAGE. CAN REACT VIOLENTLY WITH WATER, ACIDS & OTHER  
SUBSTANCES.

=====  
Disclaimer (provided with this information by the compiling agencies): This  
information is formulated for use by elements of the Department of Defense.  
The United States of America in no manner whatsoever expressly or implied  
warrants, states, or intends said information to have any application, use  
or viability by or to any person or persons outside the Department of  
Defense nor any person or persons contracting with any instrumentality of  
the United States of America and disclaims all liability for such use. Any  
person utilizing this instruction who is not a military or civilian  
employee of the United States of America should seek competent professional

advice to verify and assume responsibility for the suitability of this information to their particular situation regardless of similarity to a corresponding Department of Defense or other government situation.