

SAFETY DATA SHEET

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

| <u>COMPONENT</u> | <u>SYNONYM</u> | <u>CAS NO.</u> | <u>% BY WEIGHT</u> |
|------------------|----------------|----------------|--------------------|
| Sodium hydroxide | Caustic soda | 1310-73-2 | 10 - 20 |

If Chemical Name/CAS No is "proprietary" and/or % By Weight is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES:

| | |
|-----------------------------------|---|
| EYES: | Immediately flush with large quantities of cool water continuously for at least 15 minutes. Call a physician. |
| SKIN: | Immediately flush with large quantities of cool water continuously for at least 15 minutes. Call a physician. Remove contaminated clothing and shoes. Do not put contaminated clothing and shoes back on. Wash clothing and shoes thoroughly in soap and water; rinse repeatedly in clean water and dry before reuse. |
| INGESTION: | If conscious, immediately give large quantities of water. DO NOT INDUCE VOMITING. Call a physician at once. DO NOT give anything by mouth if the person is unconscious or if having convulsions. |
| INHALATION: | Remove subject to fresh air. Give artificial respiration if necessary. Get medical attention immediately. |
| PRIMARY ROUTE(S) OF ENTRY: | Eyes, skin, inhalation. |

MOST IMPORTANT SYMPTOMS / EFFECTS, ACUTE AND DELAYED:

| | |
|--------------------------|--|
| EYE CONTACT: | Causes serious eye damage. |
| SKIN CONTACT: | Corrosive. Causes burns. |
| INGESTION: | May be harmful if swallowed. |
| INHALATION: | Causes burns to alimentary canal and mucous membranes. |
| CHRONIC SYMPTOMS: | None expected under normal conditions of use. |

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY:

If you experience any of the symptoms / effects listed above seek medical advice.

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

Use extinguishing media as appropriate for surrounding fire.

SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Not considered flammable or explosive. Hazardous reactions will not occur under normal conditions.

ADVICE FOR FIRE FIGHTERS:

Wear self-contained breathing apparatus and full protective clothing. Use water spray to keep containers cool.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES:

Avoid all contact with skin, eyes and clothing. Avoid breathing vapors. Wear nitrile, neoprene, or natural rubber gloves. Goggles and faceshield necessary. Wear suitable protective clothing. Use NIOSH / MSHA approved positive pressure self-contained breathing apparatus when any material is involved in a fire.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

Contain liquid spills with sand and absorb on inert material. Dispose with solid waste. See Waste Disposal Method. Ventilate area. Do not discharge to sewers or waterways without proper treatment.

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SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:

Wear proper safety equipment when handling this product. Handle in accordance with good industrial hygiene and safety procedures.

CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES:

Normal for alkaline materials. Store away from acids. Keep container closed when not in use.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

CHEMICAL IDENTITY

Sodium hydroxide

CAS NO.

1310-73-2

OSHA PEL

2 mg / M³*

ACGIH TLV

2 mg / M³*

*Denotes ceiling limit.

ENGINEERING CONTROLS:

Use good ventilation. Local exhaust is recommended if TLVs are exceeded.

INDIVIDUAL PROTECTION MEASURES:

Selection of personal protective equipment should be based upon the anticipated exposure and made in accordance with OSHA's Personal Protective Equipment Standard found in 29 CFR 1910 Subpart I. The following information may be used to assist in PPE selection.

RESPIRATORY PROTECTION:

In absence of proper environmental control, use NIOSH / MSHA approved respirator for dusts and mists where airborne exposure is excessive.

SKIN PROTECTION:

Nitrile, neoprene or natural rubber gloves. Rubber apron and rubber boots required. Other equipment as required to avoid contact.

EYE PROTECTION:

Goggles and faceshield necessary.

GENERAL HYGIENE CONSIDERATIONS:

Eyewash facility and emergency shower should be in close proximity. Always wash hands after handling any chemical.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|-----------------|
| APPEARANCE: | Brown, liquid. |
| ODOR: | Ammoniacal |
| ODOR THRESHOLD: | Not available. |
| pH (100%): | 14.8 – 15.2 |
| MELTING POINT/FREEZING POINT | Not available |
| INITIAL BOILING POINT AND BOILING RANGE | 240°F (115.5°C) |
| FLASH POINT (METHOD USED) | None |
| EVAPORATION RATE | Not available. |
| FLAMMABILITY (SOLID, GAS) | Not available. |
| UPPER/LOWER FLAMMABLE OR EXPLOSIVE LIMIT | Not available. |
| VAPOR PRESSURE | Not available. |
| VAPOR DENSITY | Not available. |
| SPECIFIC GRAVITY | 1.21 |
| SOLUBILITY IN WATER | Complete. |
| PARTITION COEFFICIENT: N-OCTANOL/WATER | Not available. |
| AUTO-IGNITION TEMPERATURE | Not available. |
| VISCOSITY, DYNAMIC | Not available. |
| DECOMPOSITION TEMPERATURE | Not available. |
| VISCOSITY | Not available. |

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SECTION 10: STABILITY AND REACTIVITY

| | |
|--|---|
| REACTIVITY: | Hazardous reactions will not occur under normal conditions. |
| CHEMICAL STABILITY: | Stable under recommended handling and storage conditions (see Section 7). |
| POSSIBILITY OF HAZARDOUS REACTIONS: | Hazardous polymerization will not occur. |
| CONDITIONS TO AVOID: | No data found. |
| INCOMPATIBLE MATERIALS: | Aluminum, tin, zinc, and their alloys; strong acids. |
| HAZARDOUS DECOMPOSITION PRODUCTS: | Carbon dioxide, carbon monoxide. |

SECTION 11: TOXOLOGICAL INFORMATION

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|--|--|
| ACUTE TOXICITY: | Not classified. |
| LD50 AND LC50 DATA: | Not available. |
| ROUTES OF EXPOSURE / SYMPTOMS | |
| EYES: | DANGER! Causes burns. |
| SKIN: | DANGER! Causes burns. |
| INGESTION: | WARNING! May be harmful if swallowed. |
| INHALATION: | WARNING! Causes burns to alimentary canal and mucous membranes. |
| GERM CELL MUTAGENICITY: | Not classified. |
| TERATOGENICITY: | Not available. |
| CHRONIC EFFECTS / CARCINOGENICITY: | This material contains no ingredient above de minimus concentrations known or suspected to cause cancer. |
| SPECIFIC TARGET ORGAN TOXICITY (Repeated exposure): | Not classified. |
| REPRODUCTIVE TOXICITY: | Not classified. |
| SPECIFIC TARGET ORGAN TOXICITY (Single exposure): | Not classified. |
| ASPIRATION HAZARD: | Not classified. |
| COMPONENT INFORMATION: | |
| Sodium hydroxide | LD50 Oral: No Data LD50 Dermal Rabbit: 1350 mg/kg LD50 Inhalation: No data |

SECTION 12: ECOLOGICAL INFORMATION

| | |
|---------------------------------------|--|
| ECOTOXICITY | LC50 <i>Ceriodaphnia dubia</i> : 546.21 mg/L/48hr |
| PERSISTENCE AND DEGRADABILITY: | Not available. |
| BIOACCUMULATIVE POTENTIAL: | Not available. |
| MOBILITY IN SOIL: | Not available. |
| OTHER ADVERSE EFFECTS: | This material contains no hazardous air pollutants (HAPS). |

SECTION 13: DISPOSAL CONSIDERATIONS

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| WASTE DISPOSAL METHOD | Normal for alkaline wastes. May require pH adjustment for neutralization. Dispose in accordance with local, state and federal regulations. |
|------------------------------|--|

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SECTION 14: TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Corrosive liquid, basic, inorganic, n.o.s. (contains sodium hydroxide)
HAZARD CLASS: 8
IDENTIFICATION NUMBER: UN3266
PACKING GROUP: III
EMERGENCY RESPONSE GUIDE: ERG #154

SECTION 15: REGULATORY INFORMATION

VOC: 0 pounds per gallon (0 grams per liter).
TSCA STATUS All ingredients are listed on the TSCA inventory.
CERCLA REPORTABLE QUANTITY 1,000 pounds for sodium hydroxide (approximately 568 gallons).

SARA 311 / 312 HAZARD CLASSES

| | |
|----------|----------------------------|
| x | ACUTE HEALTH |
| | FIRE |
| | SUDDEN RELEASE OF PRESSURE |
| | CHRONIC HEALTH |
| | REACTIVE |

SARA 312 INFORMATION

Storage of 10,000 pounds or more may require filing a Tier 2 form. Threshold planning quantity for reporting is 10,000 pounds. This material is not an extremely hazardous substance (EHS).

SARA 313 INFORMATION

This material contains the following substances subject to the reporting requirements of Section 313 of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372

CHEMICAL NAME

None

CATEGORY CODE

CAS NUMBER

% BY WEIGHT

STATE REGULATORY INFORMATION

CALIFORNIA PROPOSITION 65

California has not identified the ingredients listed in Section 3 as known to cause cancer or reproductive toxicity.

SECTION 16: OTHER INFORMATION

SDS STATUS: Revised sections 2 and 16 on 10-18-15.

| | |
|------------------------|----------|
| HEALTH | 3 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |

FOR INDUSTRIAL USE ONLY – KEEP OUT OF THE REACH OF CHILDREN