



Material Safety Data Sheet

Product No. 19539 Sodium Hydroxide

Issue Date (06-15-06)

Review Date (06-01-12)

Section 1: Product and Company Identification

Product Name: Sodium Hydroxide

Synonym: Caustic soda, lye, sodium hydrate.

Company Name

Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477

Domestic Phone (800) 237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

International Phone (01) (530) 243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Chemtrec Emergency Number 1-800-424-9300 24 hrs a day.

Section 2: Composition / Information on Ingredients

| Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No) | % | OSHA PEL mg/m³ | ACGIH TLV mg/m³ | NTP | IARC | OSHA regulated |
|---|----------|--------------------------------------|---------------------------------------|------------|-------------|-----------------------|
| Sodium Hydroxide (1310-73-2) | 100 | 2 | 2 | No | No | No |

Section 3: Hazard Identification

Emergency overview

Appearance: White deliquescent pellets, flakes or granules with no odor.

Immediate effects: Danger! Poison! Causes severe respiratory tract, eye and skin burns.

May be fatal if swallowed. Harmful if inhaled. Cause damage to the following organs:

Respiratory tract, skin, eye lens or cornea

Potential health effects

Primary Routes of entry: Absorbed through skin. Eye contact. Inhalation. Ingestion.

Signs and Symptoms of Overexposure: Causes severe burns on contact with any body tissue. Vapor is irritating to the eyes and respiratory passages.

Eyes: Extremely hazardous in case of eye contact (corrosive). Causes severe eye burns.

Skin: Extremely hazardous in case of skin contact (corrosive). Skin contact produces severe burns. Hazardous in case of skin contact (permeator).

Ingestion: Extremely hazardous in case of ingestion. May be fatal if swallowed.

Inhalation: Extremely hazardous in case of inhalation (lung corrosive). Hazardous in case of inhalation.

Chronic Exposure: Extremely toxic and corrosive.

Chemical Listed As Carcinogen Or Potential Carcinogen: No.

See Toxicological Information (Section 11)

Potential environmental effects

See Ecological Information (Section 12)

Section 4: First Aid Measures

If accidental overexposure is suspected

Eye(s) Contact: Check for and remove any contact lenses. In case of contact, immediately flush eye 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. Cold water may be used. Remove contaminated clothing and shoes and wash before reuse. Get medical attention immediately

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to and unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Note to physician

Treatment: NIF

Medical Conditions generally Aggravated by Exposure: Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 5: Fire Fighting Measures

Flash Point: NA

Flammable Limits: LEL: NA, UEL: NA

Auto-ignition point: NA

Fire Extinguishing Media: NA

Special Fire Fighting Procedures: NA.

Unusual Fire and Explosion Hazards: Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin lead and zinc.

Hazardous combustion products: NA

DOT Class: Toxic and Corrosive

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source, if this can be done without risk. Take up and containerize for proper disposal. Comply with local, state and Federal regulations on reporting releases. Refer to regulatory information for reportable quantity and other regulatory data.

Waste Disposal Methods: Dispose of waste according to Federal, State and Local Regulations.

Section 7: Handling and Storage

Precautions to be Taken in Handling and Storage: Do not ingest. Do not breathe dust. Do not get in eyes, on skin or on clothing. Keep container tightly closed. Store in a dry and well-ventilated area

Storage temperature: Room temperature.

Storage Pressure: NA

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Ventilation required: Material should be handled or transferred in an approved fume hood or with adequate ventilation.

Personal Protection Equipment

Respiratory protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirator (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering and/or administrative controls should be implemented to reduce exposure.

Protective gloves: Nitrile or equivalent.

Skin protection: Impervious, protective clothing.

Eye protection: Safety glasses with side shields must be worn at all times.

Additional clothing and/or equipment: Eyewash and safety equipment should be readily available.

Exposure Guidelines

See Composition/Information on Ingredients (Section 2)

Section 9 Physical and Chemical Properties

Appearance and Physical State: White Solid (flakes, pellets or granular)

Odor (threshold): Odorless.

Specific Gravity (H₂O=1): 2.13

Vapor Pressure (mm Hg): NA

Vapor Density (air=1): NA

Percent Volatile by volume: NA

Evaporation Rate (butyl acetate=1): NA

Boiling Point: 1390.04°C (2534.1°F)

Freezing point / melting point: 318.38°C (605.1°F)

pH: ND

Solubility in Water: Soluble

Molecular Weight: 40.00 g/mole.

Section 10: Stability and Reactivity

Stability: Stable.

Conditions to Avoid: Contact with moisture may generate sufficient heat to ignite surrounding combustible material. Keep container tightly sealed.

Materials to Avoid (Incompatibility): Water, acids, chlorinated hydrocarbons, metals, and organic materials.

Hazardous Decomposition Products: None indicated.

Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information

Results of component toxicity test performed: ORL-rabbit LDLO: 500mg/kg. Tests on laboratory animals indicate material may produce adverse mutagenic effects.

Human experience: Extremely hazardous in case of eye contact (corrosive). Causes severe eye burns.

Extremely hazardous in case of skin contact (corrosive). Skin contact produces severe burns. Hazardous in case of skin contact (permeator). Extremely hazardous in case of inhalation (lung corrosive). Hazardous in case of inhalation. Extremely hazardous in case of ingestion. May be fatal if swallowed.

This product **does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

Section 12: Ecological Information

Ecological Information: ND

Chemical Fate Information: Biodegradation: The products of degradation are less toxic than the product itself.

Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: Material does not have an EPA Waste Number and is not a listed waste.

Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

Section 14: Transportation Information

US DOT Information: Proper shipping name: Sodium Hydroxide, solid

Hazard Class: 8

Packaging group: II

UN Number: UN1823

IATA: Proper shipping name: Sodium Hydroxide, solid

Hazard Class: 8

Packing group: II

UN Number: UN1823

IMO: Proper shipping name: Sodium Hydroxide, solid

Class: 8

UN Number: UN1823

Packing group: II

Marine Pollutant: No

Canadian TDG: Proper shipping name: Sodium Hydroxide, solid

Section 15: Regulatory Information

United States Federal Regulations

MSDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.

SARA: 302/304/311/312 extremely hazardous substances: No products were found.

SARA Title III: 302/304 emergency planning and notification: No products were found.

RCRA: Material does not have an EPA Waste Number and is not a listed waste.

TSCA: 8(b) inventory: Sodium Hydroxide

CERCLA: RQ: 1000 lbs (453.6 Kg)

State Regulations

California Proposition 65: None

International Regulations

Canada WHMIS: Class D-1B: Material causing immediate and serious toxic effects (TOXIC). Class E: corrosive solid.

CEPA DSL: Sodium Hydroxide.

Europe EINECS Numbers No Data: 215-185-5

Section 16: Other Information

Label Information: Toxic, Corrosive

European Risk and Safety Phrases: R35-Cause severe burns.

European symbols needed: ND

Canadian WHMIS Symbols: ND

NFPA Hazard Rating: Health: **3**; Fire: **0**; Reactivity: **1**

(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Abbreviations used in this document

NE= Not established

NA= Not applicable

NIF= No Information Found

ND= No Data

Disclaimer

Ted Pella, Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is presented in good faith and believed to be accurate, it should be considered only as a supplement to other information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.