Safety Data Sheet

Product No. 19539 Sodium Hydroxide
Issue Date (05-22-15)
Review Date (08-31-17)

Section 1: Product and Company Identification
Product Name: Sodium Hydroxide
Synonym: none
Company Name
Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477
   Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)
   Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)
CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day
CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day

Section 2: Hazard Identification
2.1 Classification of substance or mixture

GHS Pictograms

GHS05

GHS Categories
GHS05 Corrosive
   Skin Corr. 1A H314: Causes severe burns and eye damage

2.2 Label elements

Hazard pictograms

Signal Word: DANGER

GHS05

Hazard statements
H314 Causes severe skin burns and eye damage.

Precautionary statements
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.
P321 Specific treatment (see on this label).
2.3 Other hazards

Classification according to Directive 67/548/EEC or Directive 1999/45/EC
Label: C; Corrosive
R35: Causes severe burns.

Health Effects:
NFPA Hazard Rating: Health: 4; Fire: 0; Reactivity: 0
HMIS® Hazard Rating: Health: 4; Fire: 0; Reactivity: 0
(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.

Emergency overview
Appearance: Solid, White
Immediate effects: ND

Potential health effects
Primary Routes of entry: Ingestion, inhalation, skin and eye contact.

Signs and Symptoms of Overexposure: ND

Eyes: Causes eye damage.
Skin: Causes severe skin burns.
Ingestion: Harmful if swallowed.
Inhalation: Harmful by inhalation.

Chronic Exposure: ND

Chemical Listed As Carcinogen Or Potential Carcinogen: No
See Toxicological Information (Section 11)

Potential environmental effects
See Ecological Information (Section 12)
Section 3: Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Principle Hazardous Component(s)</th>
<th>%</th>
<th>OSHA PEL mg/m³</th>
<th>ACGIH TLV mg/m³</th>
<th>NTP</th>
<th>IARC</th>
<th>OSHA regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide (1310-73-2)</td>
<td>ND</td>
<td>2</td>
<td>2</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

EC number: 215-185-5
Index number: 011-002-00-6

Section 4: First Aid Measures

If accidental overexposure is suspected

General information: Immediately remove clothing soiled by this product.
Eye(s) Contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
Skin Contact: Immediately wash with water and soap and rinse thoroughly.
Inhalation: In case of unconsciousness place patient stably in side position for transportation.
Ingestion: Drink plenty of water and provide fresh air. Call for a doctor immediately.

Note to physician
Treatment: No further relevant information available.
Medical Conditions generally Aggravated by Exposure: ND

Section 5: Fire Fighting Measures

Flash Point: NA
Flammable Limits: ND
Auto-ignition point: ND
Fire Extinguishing Media: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam on surrounding materials.
Special Fire Fighting Procedures: Water on pellets can generate heat.
Unusual Fire and Explosion Hazards: Product does not present an explosion hazard.
Hazardous combustion products: ND
DOT Class: Corrosive.

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled
Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away.
Environmental precautions: Do not allow to enter sewers/surface or ground water.
Methods and material for containment and cleaning up: Use neutralizing agent. Ensure adequate ventilation.
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: Ensure adequate ventilation and thorough de-dusting.
Storage temperature: ND
Further information about storage conditions: Keep container tightly sealed.
Storage Pressure: NA

Section 8: Exposure Controls / Personal Protection

Engineering Controls
Ventilation required: Ensure adequate ventilation. Use in chemical fume hood.

Personal Protection Equipment
General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Respiratory protection: Use dust mask as required.
Protective gloves: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Skin protection: Protective gloves and clothing as required
Eye protection: Tightly sealed goggles.
Additional clothing and/or equipment: ND

**Exposure Guidelines**
See Composition/Information on Ingredients (Section 3)

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**Section 9 Physical and Chemical Properties**
Appearance and Physical State: White solid
Odor (threshold): Odorless (ND)
Specific Gravity (H₂O=1): 2.13 g/cm³
Vapor pressure (hPa): 3.5
Vapor Density (air=1): NA
Percent Volatile by volume: ND
Evaporation Rate (butyl acetate=1): NA
Boiling Point: 1390 °C
Melting point: 319 °C
pH: NA
Solubility in Water: 420 g/l
Molecular Weight: ND

**Section 10: Stability and Reactivity**
Stability: ND
Conditions to Avoid: Moisture.
Materials to Avoid (Incompatibility): Water poured on pellets can generate heat with solution. Flammable hydrogen gas may be produced on prolong contact with metals such as aluminum, tin, lead and zinc.
Hazardous Decomposition Products: None known.
Hazardous Polymerization: ND

**Section 11: Toxicological Information**
Results of component toxicity test performed:
Acute toxicity: Oral LD₅₀ 2000 mg/kg (rat)
Primary irritant effect:
   - On the skin: Strong caustic effect on skin and mucous membranes.
   - On the eye: Strong caustic effect.
Sensitization: No sensitizing effects known.
Human experience: Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
This product does not contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

**Section 12: Ecological Information**
Aquatic toxicity: ND
Persistence and degradability: ND
Bioaccumulative potential: ND
Mobility in soil: ND
Additional ecological information: Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or un-neutralized.
Chemical Fate Information: ND

**Section 13 Disposal Considerations**
RCRA 40 CFR 261 Classification: None
Waste treatment methods: Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Un-cleaned packaging: Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agents: Water, if necessary together with cleansing agents.
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
Packaging 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**
SARA: Section 355 (extremely hazardous substances): Substance is not listed.
SARA Title III: Section 313 (Specific toxic chemical listings): Substance is not listed.
RCRA: None
TSCA: Substance is listed.
CERCLA: Sodium Hydroxide (1310-73-2): RQ =1000 lbs (454 Kg).
**State Regulations**
California Proposition 65: Substance is not listed.
**Carcinogenic categories:**
EPA (Environmental Protection Agency): Substance is not listed.
TLV (Threshold Limit Value established by ACGIH): Substance is not listed.
NIOSH-Ca (National Institute for Occupational Safety and Health): Substance is not listed.
OSHA-Ca (Occupational Safety & Health Administration): Substance is not listed.
A Chemical Safety Assessment has not been carried out.
**International Regulations**
Canada WHMIS: ND
Europe EINECS Numbers: 215-185-5
Section 16: Other Information

Label Information: Corrosive
European Risk and Safety Phrases: See Section 2
European symbols needed: See Section 2
Canadian WHMIS Symbols: ND

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.

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