

# Safety Data Sheet



## SECTION 1: Identification of the substance/mixture and the company/undertaking

### 1.1 Production identifiers

Product name : CAUSTIC SODA BEADS  
Brand : CJ Chemicals LLC  
CAS-No. : 1310-73-2

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, synthesis of substances

### 1.3 Details of the supplier of the safety data sheet

Company : CJ Chemicals LLC  
3469 E Grand River Rd #112  
Howell, MI 48843  
United States

Telephone : +1 (888) 274-1044

### 1.4 Emergency Telephone

Emergency Phone # : 1-800-424-9300 CHEMTREC (USA)  
1-703-527-3887 CHEMTREC (international) 24 hours/day; 7 days/week

## 2. HAZARDS IDENTIFICATION

### Classification

#### OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

### Label elements

#### Emergency Overview

#### Danger

#### Hazard statements

Harmful in contact with skin  
Causes severe skin burns and eye damage



**Appearance** Caustic soda pearls

**Physical state** Solid

**Odor** Alkaline

#### Precautionary Statements - Prevention

Do not breathe dusts or mists  
Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection

#### Precautionary Statements - Response

Specific treatment (see Section 4 on SDS)  
Immediately call a POISON CENTER or doctor  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER or doctor  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse. Call a POISON CENTER or doctor if you feel unwell  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor  
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

#### Precautionary Statements - Storage

Store locked up

#### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

Not Applicable

**Other Information**

- Harmful to aquatic life with long lasting effects

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Synonyms** Caustic Soda Micro Pearls, Caustic Soda, Sodium Hydroxide, Anhydrous Sodium Hydroxide, Sodium Hydroxide Solid, NaOH, Sodium Hydrate, Caustic Pearl (Prill), Soda Lye.

Chemical Name	CAS No.	weight-%
Sodium Hydroxide	1310-73-2	96-100
Sodium chloride	7647-14-5	0-2
Sodium carbonate	497-19-8	0-2

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES****First aid measures**

**Eye contact** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Seek immediate medical attention/advice.

**Skin contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing and shoes before reuse. For severe burns, immediate medical attention is required. Do not use solvents or thinners.

**Inhalation** Remove to fresh air. Administer oxygen if breathing is difficult. Call a physician immediately.

**Ingestion** Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** See Section 11 for symptom information.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**

Use extinguishing agents appropriate for surrounding fire.

**Unsuitable extinguishing media** Do not use water.

**Specific hazards arising from the chemical**

Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Exothermic reaction will occur upon dilution with water.

**Hazardous combustion products** Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers with flooding quantities of water until well after fire is out. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protection recommended in Section 8. Ensure adequate ventilation, especially in confined areas. Avoid creating dust. Avoid breathing dust.

**For emergency responders** Isolate area. Keep unnecessary personnel away.

**Environmental precautions**

**Environmental precautions** Keep out of water supplies and sewers. This material is alkaline and may raise the pH of surface waters with low buffering capacity. Release should be reported if required to appropriate agencies. See Section 12 for additional ecological information. Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Collect spillage. Shovel dry material into suitable container. Remainder may be neutralized with a mild acid (vinegar) and rinsed to a sewer.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on safe handling** Exothermic reaction will occur upon dilution with water. When making solutions or diluting, only add caustic soda slowly to surface of cold water while stirring. This product is not safe on soft metals, galvanized and painted surfaces. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Use only in well-ventilated areas. Avoid breathing dust, vapors, or mist. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Do not store in aluminum containers or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated. Do not allow water to get into container. Keep separated from incompatible substances.

**Incompatible materials** Acids. Halogens. Amphoteric metals (aluminum, copper, zinc).

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Hydroxide 1310-73-2	Ceiling: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> (vacated) Ceiling: 2 mg/m <sup>3</sup>	IDLH: 10 mg/m <sup>3</sup> Ceiling: 2 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Controls** Showers, eyewash stations, ventilation system.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Splash proof chemical goggles and face shield.

**Skin and body protection** Wear protective Neoprene™ gloves. Rubber gloves. Wear suitable protective clothing. Rubber boots recommended.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing and shoes before reuse. Do not eat, drink or smoke when using this product.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b>	Solid	<b>Odor</b>	Alkaline
<b>Appearance</b>	Caustic soda pearls	<b>Odor threshold</b>	No information available
<b>Color</b>	White	<b>Remarks • Method</b>	
<b>Property</b>	<b>Values</b>		
<b>pH</b>	13		±1 @ 21°C (2% solution)
<b>Melting point/freezing point</b>	318 °C / 604 °F		
<b>Boiling point / boiling range</b>	1390 °C / 2534 °F		
<b>Flash point</b>	No information available		
<b>Evaporation rate</b>	No information available		
<b>Flammability (solid, gas)</b>	No information available		
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit:</b>	No information available		
<b>Lower flammability limit:</b>	No information available		
<b>Vapor pressure</b>	< 18		mm Hg @20°C
<b>Vapor density</b>	1.38		
<b>Bulk density</b>	2.13 g/cc		
<b>Water solubility</b>	347g/100g @ 100°C		
<b>Solubility in other solvents</b>	No information available		
<b>Partition coefficient</b>	No information available		
<b>Autoignition temperature</b>	No information available		
<b>Decomposition temperature</b>	No information available		
<b>Kinematic viscosity</b>	No information available		
<b>Dynamic viscosity</b>	No information available		
<b>Explosive properties</b>	No information available		
<b>Oxidizing properties</b>	No information available		
<b>VOC Content (%)</b>	0.00%		

**10. STABILITY AND REACTIVITY**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions. Exothermic reaction will occur upon dilution with water.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

This product is not safe on soft metals, galvanized and painted surfaces. Keep from any possible contact with water. Exothermic reaction will occur upon dilution with water. Dust formation.

**Incompatible materials**

Acids. Halogens. Amphoteric metals (aluminum, copper, zinc).

**Hazardous Decomposition Products**

Hazardous Decomposition products formed under fire conditions – Sodium oxides.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**

<b>Inhalation</b>	Inhalation of dust in high concentration may cause irritation of respiratory system. Vapors may be irritating to eyes, nose, throat, and lungs.
<b>Eye contact</b>	Risk of serious damage to eyes. Corrosive to the eyes and may cause severe damage including blindness.
<b>Skin Contact</b>	Corrosive. Contact causes severe skin irritation and possible burns.
<b>Ingestion</b>	Harmful if swallowed. Can burn mouth, throat, and stomach. Ingestion causes burns of the upper digestive and respiratory tracts.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Hydroxide 1310-73-2	-	= 1350 mg/kg ( Rabbit )	-
Sodium chloride 7647-14-5	= 3 g/kg ( Rat )	> 10 g/kg ( Rabbit )	> 42 g/m <sup>3</sup> ( Rat ) 1 h
Sodium carbonate 497-19-8	= 4090 mg/kg ( Rat )	-	= 2300 mg/m <sup>3</sup> ( Rat ) 2 h

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

**Unknown Acute Toxicity** 0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

<b>Dermal LD50</b>	1,376.00 mg/kg
<b>Mist</b>	115.00 mg/l

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Harmful to aquatic life with long lasting effects

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium Hydroxide 1310-73-2	-	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-
Sodium chloride 7647-14-5	-	5560 - 6080: 96 h Lepomis macrochirus mg/L LC50 flow-through 12946: 96 h Lepomis macrochirus mg/L LC50 static 6420 - 6700: 96 h Pimephales promelas mg/L LC50 static 6020 - 7070: 96 h Pimephales promelas mg/L LC50 static 7050: 96 h Pimephales promelas mg/L LC50 semi-static 4747 - 7824: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	1000: 48 h Daphnia magna mg/L EC50 340.7 - 469.2: 48 h Daphnia magna mg/L EC50 Static
Sodium carbonate 497-19-8	242: 120 h Nitzschia mg/L EC50	300: 96 h Lepomis macrochirus mg/L LC50 static 310 - 1220: 96 h Pimephales promelas mg/L LC50 static	265: 48 h Daphnia magna mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

Soluble in water.

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (US SARA Section 304). If release occurs in the US and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

**Contaminated packaging**

Dispose of in accordance with federal, state and local regulations.

Chemical Name	California Hazardous Waste Status
Sodium Hydroxide 1310-73-2	Toxic Corrosive
Sodium carbonate 497-19-8	Corrosive

**14. TRANSPORT INFORMATION**

**DOT**

UN/ID No. 1823  
 Proper shipping name Sodium hydroxide, solid  
 Hazard Class 8  
 Packing Group II  
 Emergency Response Guide Number 154

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA Complies  
 DSL/NDSL Complies  
 EINECS/ELINCS Complies

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

Acute health hazard Yes  
 Chronic Health Hazard No  
 Fire hazard No  
 Sudden release of pressure hazard No  
 Reactive Hazard Yes

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium Hydroxide 1310-73-2	1000 lb	-	-	X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sodium Hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sodium Hydroxide 1310-73-2	X	X	X

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not Applicable

**16. OTHER INFORMATION**

<u><b>NFPA</b></u>	<b>Health hazards</b> 3	<b>Flammability</b> 0	<b>Instability</b> 1	<b>Physical and Chemical Properties</b> W - Water reactive, Corrosive, Alkaline <b>Personal protection</b> F (safety glasses, gloves, synthetic apron, dust respirator)
<u><b>HMIS</b></u>	<b>Health hazards</b> 3	<b>Flammability</b> 0	<b>Physical hazards</b> 2	

**Prepared By** Technical Department

**Issue Date** 22-Apr-2014

**Revision Date** 03-Dec-2019

**Version** 2

**Revision Note**

New information on raw ingredient has become available.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The health hazards given on this SDS apply to this product in its concentrated form (as supplied) and may differ significantly at use dilution. The signs and symptoms of exposure apply only to negligence in handling or misuse of the concentrated product and not to the routine exposure of the diluted product under conditions of ordinary use.

**End of Safety Data Sheet**