



DUDA ENERGY, LLC

Safety Data Sheet Sodium Hydroxide Caustic Beads

SECTION 1: Identification

1.1 Product identifier

Product name	Sodium Hydroxide Caustic Beads
Substance name	NaOH
EC no.	215-185-5
CAS no.	1310-73-2
Index no.	011-002-00-6

1.2 Other means of identification

Lye, Caustic Soda Beads

1.3 Recommended use of the chemical and restrictions on use

Drain Cleaning (dissolves fats and oils into soaps, eats organic material), Soft Pretzel Making, Soap Making, Peeling of fruits & vegetables, Cocoa Processing, Biodiesel Production, Cleaning grease from grease traps, exhaust hoods and fryers, Olive Curing, Paint Removal, Aluminum Etching, Preparing Lutefisk Relaxer to help straighten hair

1.4 Supplier's details

Name	Duda Energy, LLC
Address	1112 Brooks St Decatur, AL 35601 USA
Telephone	256.340.4866

1.5 Emergency phone number(s)

800.255.3924 MIS: 0006555 Chemtel

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)

- Skin corrosion/irritation (chapter 3.2), Cat. 1A
- Corrosive to metals (chapter 2.16), Cat. 1
- Acute toxicity, dermal (chapter 3.1), Cat. 4
- Eye damage/irritation (chapter 3.3), Cat. 1
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 3

- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 3

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H290	May be corrosive to metals
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

Precautionary statement(s)

P234	Keep only in original container.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water/...
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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/doctor/...
P312	Call a POISON CENTER/doctor/... if you feel unwell.
P321	Specific treatment (see ... on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.
P406	Store in a corrosive resistant/... container with a resistant inner liner.
P501	Dispose of contents/container to ...

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name	NaOH
EC no.	215-185-5
CAS no.	1310-73-2

Index no.	011-002-00-6
Formula	NaOH
Molecular weight	40
Other names / synonyms	CAUSTIC SODA; SODIUM HYDROXIDE; Sodium hydroxide solid or pellets

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Ensure that medical personnel are aware of the materials involved and take precautions to protect themselves.
If inhaled	Move to fresh air. If symptoms develop or persist, see a doctor.
In case of skin contact	Immediately remove all contaminated clothing. Rinse skin with water/shower. Call a doctor or poison control center immediately. Chemical burns must be treated by a professional. Wash contaminated clothing before reuse.
In case of eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. After 15 minutes, remove contact lenses if present and able to do so. Continue rinsing. Call a doctor or poison control center immediately.
If swallowed	Call a doctor or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content does not enter lungs.
Personal protective equipment for first-aid responders	Use chemical resistant PPE to limit exposure to materials.

4.2 Most important symptoms/effects, acute and delayed

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Provide general supportive measures and treat symptomatically.
 Chemical burns: Flush with water immediately. While flushing, remove clothes if not adhered to the affected area. Call an ambulance. Continue flushing during transport to hospital. Keep the injured person warm and under observation. Symptoms may be delayed.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Water fog, foam, dry chemical powder, carbon dioxide (CO₂)

5.2 Specific hazards arising from the chemical

During fire, hazardous gases may arise.

5.3 Special protective actions for fire-fighters

SCBA and full protective clothing must be worn. Use water spray to cool unopened containers. Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear PPE when cleaning up damaged containers or spilled material. Ensure good ventilation. If significant spoilage (as cannot be contained) occurs, notify local authorities.

6.2 Environmental precautions

Avoid release into the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses, or onto the ground. Inform appropriate personnel of any release into the environment.

6.3 Methods and materials for containment and cleaning up

Sweep up/shovel dry material into suitable container. Dispose of in accordance with all applicable regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide adequate ventilation. Do not get in eyes, on skin, or on clothing.

When using: Do not eat, drink, or smoke.

Wear appropriate PPE. Wash hands thoroughly after handling. Avoid release into the environment.

Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store away from incompatible materials.

Specific end use(s)

See Section 1

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. NaOH (CAS: 1310-73-2 EC: 215-185-5)

STEL: 2mg/m³ (ACGIH, NIOSH, OSHA)

8.2 Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Eye wash facilities and emergency showers must be available when handling this product.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear safety glasses with sides shields (or goggles). Face shield is recommended. Full-face respirator may be required.

Skin protection

Wear appropriate chemical resistant gloves. Wear long-sleeved, chemical resistant clothing.

Respiratory protection

Wear suitable respiratory equipment where ventilation is insufficient.

Environmental exposure controls

Do not flush into sewage, water-ways, or dispose of onto the ground. Use good, safe handling to prevent spillage and leakage into the environment.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Solid, BEAD White
Odor	None
Odor threshold	
pH	11-14
Melting point/freezing point	323°C/317.22°C
Initial boiling point and boiling range	1388°C
Flash point	537.2°C
Evaporation rate	
Flammability (solid, gas)	
Upper/lower flammability limits	
Vapor pressure	<0.0000001 kPa @ 25°C 0.13 kPa @ 739°C
Vapor density	
Relative density	2.13
Solubility(ies)	Water: 1110 g/l
Partition coefficient: n-octanol/water	
Auto-ignition temperature	
Decomposition temperature	
Viscosity	
Explosive properties	Not explosive
Oxidizing properties	Not oxidizing

SECTION 10: Stability and reactivity

10.1 Reactivity

Reacts violently with strong acids. This product may react with oxidizing agents. May be corrosive to metals.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Contact with incompatible materials.

10.5 Incompatible materials

Strong acids. Acids. Strong oxidizing agents. Oxidizing agents. Metals.

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Harmful in contact with skin.

Skin corrosion/irritation

Causes severe skin burns.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitization

Not a respiratory or skin sensitizer.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

STOT-single exposure

Not classified

STOT-repeated exposure

Not classified

Aspiration hazard

Not an aspiration hazard.

SECTION 12: Ecological information

Toxicity

Harmful to aquatic life with long lasting effects.

[Sodium Hydroxide (CAS#1310-73-2)]

Aquatic (Crustacea)

EC50

Water flea (Ceriodaphnia dubia) 34.59-47.13 mg/l, 48hrs

Aquatic (Fish)

LC50

Western mosquitofish (Gambusia affinis) 125 mg/l, 96hrs

Persistence and degradability

No data

Bioaccumulative potential

No data

Mobility in soil

No data

SECTION 13: Disposal considerations

Disposal of the product

Collect and reclaim or dispose of in sealed containers at a licensed waste disposal site. Dispose of material in accordance with all local, regional, national, international regulations.

Disposal of contaminated packaging

Treat contaminated packaging the same as the material. Since emptied containers may still be contaminated with material, follow label warnings. Dispose of in accordance with all applicable regulations.

Waste treatment

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

Sewage disposal

Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways, or ditches.

Other disposal recommendations

Hazardous waste code: D002 (Waste Corrosive material [pH \leq 2 or \geq 12.5, or corrosive to steel])

SECTION 14: Transport information

DOT (US)

UN Number: UN1823

Class: 8

Packing Group: II

Proper Shipping Name: Sodium Hydroxide, Solid

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Pennsylvania Right To Know Components

Chemical name: Sodium hydroxide

CAS number: 1310-73-2

New Jersey Right To Know Components

Common name: SODIUM HYDROXIDE

CAS number: 1310-73-2

Massachusetts Right To Know Components

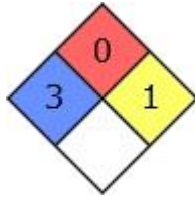
Chemical name: Sodium hydroxide

CAS number: 1310-73-2

HMIS Rating

NaOH
HEALTH
3
FLAMMABILITY
Y
PHYSICAL HAZARD
PERSONAL PROTECTION

NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

The information provided in this Safety Data Sheet is correct to the best of Duda Energy LLC's 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 information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This Safety Data Sheet only contains information relating to safety and does not replace any product information or product specification. Please note, the content may be changed, corrected, or deleted at any time without notice and may not always necessarily reflect the most current data. Duda Energy LLC will assume no responsibility for any trouble or failure caused by the errors in the information provided, nor any damage associated with the usage of the information.

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