

# CAUSTIC SODA BEADS

## SECTION 1. IDENTIFICATION

**Product Identifier** CAUSTIC SODA BEADS  
**Recommended Use** Drilling Fluid Additive.  
**Manufacturer** AES Drilling Fluids, LLC, 11767 Katy Freeway, Suite 230, Houston, TX, 77079, Sales & Information, 281-556-5628  
**Emergency Phone No.** CHEMTREC, 1-800-424-9300, 24-hour Emergency  
**Date of Preparation** August 10, 2015

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Skin corrosion/irritation - Category 1A; Serious eye damage/eye irritation - Category 1

### GHS Label Elements



Signal Word:

Danger

Hazard Statement(s):

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

Precautionary Statement(s):

P260 Do not breathe dusts or mists.

P264 Wash hands and skin thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P363 Wash contaminated clothing before reuse.

P321 Specific treatment (see supplemental first aid instruction on this label).

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 CENTRE/doctor.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Mixture:

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

## SECTION 4. FIRST-AID MEASURES

### First-aid Measures

#### Inhalation

Remove source of exposure or move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. If breathing has stopped, trained personnel should begin rescue breathing. Give artificial respiration only with the aid of a pocket mask equipped with a one way valve or other proper respiratory medical device. Immediately call a Poison Centre or doctor.

#### Skin Contact

Immediately rinse skin with lukewarm, gently flowing water for at least 30 minutes. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Seek medical advice/attention. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

#### Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately call a Poison Centre or doctor. Treatment is urgently required.

#### Ingestion

Rinse mouth with water. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor. Treatment is urgently required.

### Most Important Symptoms and Effects, Acute and Delayed

Corrosive effects may be delayed up to 24 hours. Aspiration hazard. May burn the skin. Permanent scarring may result. Contact causes severe burns with redness, swelling, pain and blurred vision. Permanent damage including blindness can result. Swallowing may cause burns/ulceration of mouth, stomach and lower GI tract.

## SECTION 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog. Water can be used if that is all that is available. Do not use in a direct spray, ideally in a fog or dispersed spray.

### Specific Hazards Arising from the Chemical

Contact with water causes violent frothing and spattering. Sealed systems of product may over pressurize when heated and rupture or explode.

In a fire, the following hazardous materials may be generated: oxides of carbon toxic halogenated compounds. metal oxide/oxides.

### Special Protective Equipment and Precautions for Fire-fighters

Dike and recover contaminated water for appropriate disposal. Protective gear and clothing should be thoroughly decontaminated before re-use.

When fighting chemical fires, emergency responders should wear NIOSH approved self contained breathing apparatus and appropriate protective clothing.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Remove or isolate incompatible materials as well as other hazardous materials. See Section 8 for appropriate personal protective equipment. Increase ventilation to area or move

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leaking container to a well-ventilated and secure area.

### Environmental Precautions

It is good practice to prevent releases into the environment. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas. Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. Store recovered product in suitable containers for disposal according to local regulations.

### Other Information

Contact EH&S regarding spill as spills of certain products and certain quantities may require reporting to various authorities.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Do not breathe in this product. Do not get in eyes, on skin or on clothing. Do not ingest product. Ensure adequate ventilation. Wear personal protective equipment to avoid direct contact with this chemical. See Section 8 for appropriate Personal Protective Equipment (PPE). Do not eat, drink or smoke in areas where product is handled. Employees should wash hands after working with product and before going on breaks outside of the work area. Prevent accidental contact with incompatible chemicals. Never add water to a corrosive. Always add corrosives slowly to COLD water. Do not add to warm or hot water, a violent eruption or explosive reaction can result. Avoid contact with organic materials. Do not mix with strong acids. Product may attack many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Prevent uncontrolled release of product. Avoid release to the environment. Use corrosion-resistant tools and equipment. See Section 10 (Stability and Reactivity) for suitable materials. Keep containers tightly closed when not in use or empty.

### Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet. Storage containers should be located in a contained area to control any spills or leaks.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH® TLV®		OSHA PEL		AIHA® WEEL™	
	TWA	STEL [C]	TWA	Ceiling	8-hr TWA	Short-term TWA [C]
Sodium hydroxide		2 mg/m <sup>3</sup> C				
Sodium chloride	Not established		Not established		Not established	
Sodium carbonate	Not established		Not established		Not established	

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. STEL = Short-term Exposure Limit. C = Ceiling limit. OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. AIHA® = AIHA® Guideline Foundation. WEEL™ = Workplace Environmental Exposure Limit.

### Appropriate Engineering Controls

General ventilation is usually adequate. Do not allow product to accumulate in the air in work or storage areas, or in confined spaces. While working with the product an eyewash and safety shower should be within acceptable distance to the work area.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

#### Skin Protection

Wear gloves with appropriate chemical resistance, see manufacturers specifications for suitability. Wear chemical protective clothing e.g. gloves, aprons, boots.

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## Respiratory Protection

If conditions of use promote large amounts of dust to gather in the work area, wear NIOSH approved dust mask or respirator.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

<b>Appearance</b>	White crystalline.
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not available
<b>pH</b>	> 10
<b>Melting Point/Freezing Point</b>	590 - 608 °F (310 - 320 °C) (melting); Not available (freezing)
<b>Initial Boiling Point/Range</b>	2534 °F (1390 °C)
<b>Flash Point</b>	Not available
<b>Evaporation Rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not available
<b>Upper/Lower Flammability or Explosive Limit</b>	Not available (upper); Not available (lower)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (air = 1)</b>	Not available
<b>Relative Density (water = 1)</b>	2.13
<b>Solubility</b>	Soluble in all proportions in water
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Other Information</b>	
<b>Physical State</b>	Solid

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use.

### Chemical Stability

Stable under normal conditions.

### Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

### Conditions to Avoid

Incompatible materials. Excess heat.

### Incompatible Materials

Releases excessive heat on contact with: oxidizing agents. May react with strong reducing agents such as metal hydrides or alkali metals to form hydrogen gas strong acids (e.g. hydrochloric acid). Reacts violently with: metals (e.g. aluminum). Acids and alkalis. Organic materials. Glycols (e.g. ethylene glycol), water, organic acids (e.g. acetic acid).

### Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

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## Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Sodium hydroxide	Not available	Not available	500 mg/kg (rabbit)
Sodium chloride	Not available	3,000 mg/m3 (rat)	Not available
Sodium carbonate	800 mg/m3 (guinea pig) (2-hour exposure)	2800 mg/m3 (rat)	> 2000 mg/kg

## Skin Corrosion/Irritation

Contact can cause pain, redness, burns, and blistering. Permanent scarring can result. May burn the skin. Permanent scarring may result.

## Serious Eye Damage/Irritation

Contact causes severe burns with redness, swelling, pain and blurred vision. Permanent damage including blindness can result.

## STOT (Specific Target Organ Toxicity) - Single Exposure

### Inhalation

Material is irritating to mucous membranes and upper respiratory tract. Prolonged exposure may cause bronchopneumonia and fluid build up in the lungs (pulmonary edema).

### Ingestion

May cause burns in the mucous membranes, esophagus, stomach.

## STOT (Specific Target Organ Toxicity) - Repeated Exposure

Prolonged skin contact may cause defatting of the skin resulting in irritation and conditions such as dermatitis. Prolonged inhalation may be harmful. Prolonged or repeated exposures may cause mucus production, chronic bronchitis and chronic cough.

## Respiratory and/or Skin Sensitization

No information was located.

## Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Sodium hydroxide	Not Listed	Not Listed	Not Listed	Not Listed
Sodium chloride	Not Listed	Not Listed	Not Listed	Not Listed
Sodium carbonate	Not Listed	Not designated	Not Listed	Not Listed

No information was located.

Key to Abbreviations

ACGIH® = American Conference of Governmental Industrial Hygienists. IARC = International Agency for Research on Cancer. NTP = National Toxicology Program. OSHA = US Occupational Safety and Health Administration.

## SECTION 12. ECOLOGICAL INFORMATION

Environmental information was not located.

## Toxicity

No information was located.

### Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Sodium hydroxide	Not available	Not available	Not available	Not available
Sodium chloride	1,294 mg/L (Lepomis macrochirus (bluegill); 96-hour; fresh water; static)	402.6 mg/L (Daphnia magna (water flea); 48-hour; fresh water; static)	Not available	Not available

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Sodium carbonate	300 mg/L (Lepomis macrochirus (bluegill); 96-hour; fresh water; static)	265 mg/L (Daphnia magna (water flea); 48-hour; fresh water; static)	Not available	Not available
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#### Persistence and Degradability

No information was located.

#### Bioaccumulative Potential

No information was located.

#### Mobility in Soil

No information was located.

## SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

Dispose of in accordance with all local, state and federal regulations. Not classified as RCRA Hazardous. RCRA WASTE NUMBER: Not Applicable.

## SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	1823	Sodium Hydroxide Solid	8	II
US DOT	1823	Sodium Hydroxide Solid	8	II

## SECTION 15. REGULATORY INFORMATION

#### Safety, Health and Environmental Regulations

##### Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by the Controlled Products Regulations.

#### Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

##### USA

#### Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

#### Additional USA Regulatory Lists

CERCLA: Product contains >96% Sodium Hydroxide RQ 1000lbs.

SARA Title III - Section 302: No listed components.

SARA Title III - Section 311/312: No listed components.

SARA Title III - Section 313: No listed components.

California Proposition 65: No listed components.

## SECTION 16. OTHER INFORMATION

**NFPA Rating**      **Health - 3**      **Flammability - 1**      **Instability - 1**

**SDS Prepared By**      AES Drilling Fluids

**Phone No.**      281-556-5628

**Date of Preparation**      August 10, 2015

**Disclaimer**      Do not handle or use until precautions on MSDS are read and understood. The information on this form is furnished solely for the purpose of enabling those who transport, handle or use our products to ensure the safety and health of their employees and to comply with various laws and regulations (federal, state and local). We believe the statements, technical information

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and recommendations contained herein are reliable but, they are given without warranty or guarantee of any kind, express or implied and we assume no responsibility for any loss, damage, direct or consequential, arising out of their use.

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