

## SAFETY DATA SHEET

### CAUSTIC SODA LIQUID

Revision Date: 30-Apr-2020

Revision Number: 9

#### 1. Product Identifier & Identity for the Chemical

**Statement of Hazardous Nature** Hazardous according to the criteria of the 3rd Revised Edition of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Dangerous Goods according to the criteria of ADG.

##### 1.1. Product Identifier

**Product Name** CAUSTIC SODA LIQUID

##### Other means of Identification

**Synonyms** None

**Hazardous Material Number:** HM005652

##### Recommended use of the chemical and restrictions on use

**Recommended Use** pH Control

**Uses advised against** No information available

##### Supplier's name, address and phone number

**Manufacturer/Supplier** Halliburton Australia Pty. Ltd.  
15 Marriott Road, Jandakot, WA 6164  
Australia  
ACN Number: 009 000 775  
Telephone Number: + 61 1 800 686 951  
Fax Number: 61 (08) 9455 5300  
**E-mail Address** fdunexchem@halliburton.com

##### Emergency phone number

+ 61 1 800 686 951

Global Incident Response Access Code: 334305

Contract Number: 14012

##### **Australian Poisons Information Centre**

24 Hour Service: - 13 11 26

Police or Fire Brigade: - 000 (exchange): - 1100

#### 2. Hazard Identification

**Statement of Hazardous Nature** Hazardous according to the criteria of the 3rd Revised Edition of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Dangerous Goods according to the criteria of ADG.

##### Classification of the hazardous chemical

Skin Corrosion/Irritation	Category 1 - H314
Serious Eye Damage/Irritation	Category 1 - H318
Specific Target Organ Toxicity - (Single Exposure)	Category 3 - H335
Substances/mixtures corrosive to metal.	Category 1 - H290

##### Label elements, including precautionary statements

##### **Hazard Pictograms**

**Signal Word**

DANGER

**Hazard Statements:**

H290 - May be corrosive to metals  
 H314 - Causes severe skin burns and eye damage  
 H318 - Causes serious eye damage  
 H335 - May cause respiratory irritation

**Precautionary Statements****Prevention**

P103 - Read label before use  
 P234 - Keep only in original packaging.  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P271 - Use only outdoors or in a well-ventilated area  
 P280 - Wear protective gloves/eye protection/face protection  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P280 - Wear 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 [or shower].  
 P363 - Wash contaminated clothing before reuse  
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 P310 - Immediately call a POISON CENTER or doctor/physician  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P390 - Absorb spillage to prevent material damage  
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
 P405 - Store locked up  
 P406 - Store in corrosive resistant container with a resistant inner liner.  
 P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

**Storage****Disposal****Contains****Substances**

Sodium hydroxide

**CAS Number**

1310-73-2

**Other hazards which do not result in classification**

None known

*For the full text of the H-phrases mentioned in this Section, see Section 16*

### 3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - Australia
Sodium hydroxide	1310-73-2	30 - 60%	Skin Corr. 1A (H314) Eye Corr. 1 (H318) STOT SE 3 (H335) Met. Corr. 1 (H290)

## 4. First aid measures

### Description of necessary first aid measures

<b>Inhalation</b>	If inhaled, move victim to fresh air and seek medical attention.
<b>Eyes</b>	Immediately flush eyes with large amounts of water for at least 30 minutes. Seek prompt medical attention.
<b>Skin</b>	Remove contaminated clothing and launder before reuse. Destroy or properly dispose of contaminated shoes. In case of contact, immediately flush skin with plenty of soap and water for at least 30 minutes and remove contaminated clothing, shoes and leather goods immediately. Get medical attention immediately.
<b>Ingestion</b>	Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

### Symptoms caused by exposure

Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction. May cause respiratory irritation.

### Medical Attention and Special Treatment

**Notes to Physician** Treat symptomatically

## 5. Fire Fighting Measures

### Suitable extinguishing equipment

#### **Suitable Extinguishing Media**

All standard fire fighting media

#### **Extinguishing media which must not be used for safety reasons**

None known.

### Specific hazards arising from the chemical

#### **Special exposure hazards in a fire**

May form explosive mixtures with strong acids. Reaction with steel and certain other metals generates flammable hydrogen gas.

### Special protective equipment and precautions for fire fighters

#### **Special protective equipment for firefighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

## 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment.

### 6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

### 6.3. Methods and material for containment and cleaning up

Contain spill with sand or other inert materials. Neutralize to pH of 6-8. Scoop up and remove. Isolate spill and stop leak where safe.

## 7. Handling and storage

### 7.1. Precautions for safe handling

#### **Handling Precautions**

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Wash hands after use. Launder contaminated clothing before reuse.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage Information**

Store away from acids. Store in a cool well ventilated area. Keep container closed when not in use. Product has a shelf life of 12 months.

**Other Guidelines**

No information available

## 8. Exposure Controls/Personal Protection

**Control parameters - exposure standards, biological monitoring****Exposure Limits**

Substances	CAS Number	Australia NOHSC	ACGIH TLV-TWA
Sodium hydroxide	1310-73-2	Not applicable	Ceiling: 2 mg/m <sup>3</sup>

**Appropriate engineering controls****Engineering Controls**

Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

**Personal protective equipment (PPE)****Personal Protective Equipment**

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

**Respiratory Protection**

If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, AS/NZS 1715:2009, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional. Dust/mist respirator. (N95, P2/P3)

**Hand Protection**

Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Butyl rubber gloves. (>= 8 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Manufacturer's directions for use should be observed because of great diversity of types.

**Skin Protection**

Full protective chemical resistant clothing.

**Eye Protection**

Chemical goggles; also wear a face shield if splashing hazard exists.

**Other Precautions**

Eyewash fountains and safety showers must be easily accessible.

**Environmental Exposure Controls**

No information available

## 9. Physical and Chemical Properties

**9.1. Information on basic physical and chemical properties**

**Physical State:** Liquid

**Color:** Clear colorless

**Odor:** Odorless

**Odor Threshold:** No information available

PropertyValues

Remarks/ - Method

**pH:**

14

**Freezing Point / Range**

12 °C

**Melting Point / Range**

No data available

**Pour Point / Range**

No data available

**Boiling Point / Range**

144 °C / 291 °F

**Flash Point**

No data available

**Evaporation rate**

No data available

**Vapor Pressure**

13 mmHg

**Vapor Density**

No data available

**Specific Gravity**

1.52

<b>Water Solubility</b>	Miscible with water
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available

**9.2. Other information**

<b>Molecular Weight</b>	40
<b>VOC Content (%)</b>	No data available

## 10. Stability and Reactivity

**10.1. Reactivity**

Not expected to be reactive.

**10.2. Chemical stability**

Stable

**10.3. Possibility of hazardous reactions**

Will Not Occur

**10.4. Conditions to avoid**

None anticipated

**10.5. Incompatible materials**

Strong acids. Peroxides. Halogenated compounds. Amphoteric metals such as aluminum, magnesium, lead, tin, or zinc.

**10.6. Hazardous decomposition products**

None known.

## 11. Toxicological Information

**Information on routes of exposure**

**Principle Route of Exposure** Eye or skin contact, inhalation.

**Symptoms related to exposure****Most Important Symptoms/Effects**

Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction. May cause respiratory irritation.

**Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hydroxide	1310-73-2	140 - 340 mg/kg ( Rat )	1350 mg/kg ( Rabbit )	No data available

**Immediate, delayed and chronic health effects from exposure**

<b>Inhalation</b>	Causes severe respiratory burns.
<b>Eye Contact</b>	Causes severe eye burns.
<b>Skin Contact</b>	Causes severe burns.
<b>Ingestion</b>	Causes burns of the mouth, throat and stomach.

**Chronic Effects/Carcinogenicity** Prolonged, excessive exposure may cause erosion of the teeth.

**Exposure Levels**

No data available

**Interactive effects**

Skin disorders.

**Data limitations**

No data available

<b>Substances</b>	<b>CAS Number</b>	<b>Skin corrosion/irritation</b>
Sodium hydroxide	1310-73-2	Causes severe burns
<b>Substances</b>	<b>CAS Number</b>	<b>Serious eye damage/irritation</b>
Sodium hydroxide	1310-73-2	Causes severe eye burns. (Rabbit)
<b>Substances</b>	<b>CAS Number</b>	<b>Skin Sensitization</b>
Sodium hydroxide	1310-73-2	Did not cause sensitization on laboratory animals (guinea pig)
<b>Substances</b>	<b>CAS Number</b>	<b>Respiratory Sensitization</b>
Sodium hydroxide	1310-73-2	No information available
<b>Substances</b>	<b>CAS Number</b>	<b>Mutagenic Effects</b>
Sodium hydroxide	1310-73-2	Did not show mutagenic effects in animal experiments In vitro tests did not show mutagenic effects.
<b>Substances</b>	<b>CAS Number</b>	<b>Carcinogenic Effects</b>
Sodium hydroxide	1310-73-2	No data of sufficient quality are available.
<b>Substances</b>	<b>CAS Number</b>	<b>Reproductive toxicity</b>
Sodium hydroxide	1310-73-2	No information available
<b>Substances</b>	<b>CAS Number</b>	<b>STOT - single exposure</b>
Sodium hydroxide	1310-73-2	May cause respiratory irritation.
<b>Substances</b>	<b>CAS Number</b>	<b>STOT - repeated exposure</b>
Sodium hydroxide	1310-73-2	No significant toxicity observed in animal studies at concentration requiring classification. Not applicable due to corrosivity of the substance.
<b>Substances</b>	<b>CAS Number</b>	<b>Aspiration hazard</b>
Sodium hydroxide	1310-73-2	Not applicable

## 12. Ecological Information

### Ecotoxicity

#### Product Ecotoxicity Data

Product is not classified as hazardous to the environment.

#### Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Sodium hydroxide	1310-73-2	No information available	LC50(48h) 189 mg/L (Leuciscus idus melanotus) LLC50(48h) 189 mg/L (Leuciscus melanotus) LC50(24h) 145 mg/L (Poecilia reticulata) LC50(96h) 125 mg/L (Gambusia affinis) LOEL(150 d) = 25 mg/L (Lebistes reticulatus)	No information available	EC50 (48h) 40.4 mg/L (Ceriodaphnia sp.)

### 12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Sodium hydroxide	1310-73-2	The methods for determining biodegradability are not applicable to inorganic substances.

### 12.3. Bioaccumulative potential

Substances	CAS Number	Bioaccumulation
Sodium hydroxide	1310-73-2	No information available

**12.4. Mobility in soil**

Substances	CAS Number	Mobility
Sodium hydroxide	1310-73-2	No information available

**12.6. Other adverse effects****Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

**13. Disposal Considerations****Safe handling and disposal methods**

Disposal should be made in accordance with federal, state, and local regulations.

**Disposal of any contaminated packaging**

Follow all applicable national or local regulations.

**Environmental regulations**

Not applicable

**14. Transport Information****Transportation Information****Australia ADG**

UN Number	UN1824
UN proper shipping name:	Sodium Hydroxide Solution
Transport Hazard Class(es):	8
Packing Group:	II
Environmental Hazards:	Not applicable

**IMDG/IMO**

UN Number	UN1824
UN proper shipping name:	Sodium Hydroxide Solution
Transport Hazard Class(es):	8
Packing Group:	II
Environmental Hazards:	Not applicable
EMS:	EmS F-A, S-B

**IATA/ICAO**

UN Number	UN1824
UN proper shipping name:	Sodium Hydroxide Solution
Transport Hazard Class(es):	8
Packing Group:	II
Environmental Hazards:	Not applicable

**Special precautions during transport**

None

**HazChem Code**

2R

**15. Regulatory Information****Safety, health and environmental regulations specific for the product****International Inventories****Australian AICS Inventory**

All components are listed on the AICS or are subject to a relevant exemption, permit, or assessment certificate.

**New Zealand Inventory of Chemicals** All components are listed on the NZIoC or are subject to a relevant exemption, permit, or assessment certificate.  
**US TSCA Inventory** All components listed on inventory or are exempt.  
**Canadian Domestic Substances List (DSL)** All components listed on inventory or are exempt.

**Poisons Schedule number**

None Allocated

**International Agreements**

<b>Montreal Protocol - Ozone Depleting Substances:</b>	Does not apply.
<b>Stockholm Convention - Persistent Organic Pollutants:</b>	Does not apply
<b>Rotterdam Convention - Prior Informed Consent:</b>	Does not apply.
<b>Basel Convention - Hazardous Waste:</b>	Does not apply.

**16. Other information****Date of preparation or review****Revision Date:** 30-Apr-2020**Revision Note**SDS sections updated:  
2**Full text of H-Statements referred to under sections 2 and 3**

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H335 - May cause respiratory irritation

**Additional information**

For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Stewardship at 1-580-251-4335.

**Key abbreviations or acronyms used**

bw – body weight

CAS – Chemical Abstracts Service

EC50 – Effective Concentration 50%

LC50 – Lethal Concentration 50%

LD50 – Lethal Dose 50%

LL50 – Lethal Loading 50%

mg/kg – milligram/kilogram

mg/L – milligram/liter

NOEC – No Observed Effect Concentration

OEL – Occupational Exposure Limit

PBT – Persistent Bioaccumulative and Toxic

ppm – parts per million

STEL – Short Term Exposure Limit

TWA – Time-Weighted Average

vPvB – very Persistent and very Bioaccumulative

h - hour

mg/m<sup>3</sup> - milligram/cubic meter

mm - millimeter

mmHg - millimeter mercury

w/w - weight/weight

d - day

**Key literature references and sources for data**



[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)

**Disclaimer Statement**

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**End of Safety Data Sheet**