

# SAFETY DATA SHEET

**LIQUID CAUSTIC SODA, 46%**

Infosafe No.: 1HH10  
ISSUED Date : 10/05/2019  
ISSUED by: CULBEAG HOLDINGS Pty Ltd

## 1. IDENTIFICATION

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**GHS Product Identifier**

LIQUID CAUSTIC SODA, 46%

**Product Code**

LCSTB

**Company Name**

CULBEAG HOLDINGS Pty Ltd (ABN 95 007 197 079)

**Address**

19 Allied Drive Tullamarine  
VICTORIA 3043 Australia

**Telephone/Fax Number**

Tel: 03 9335 4400

Fax: 03 9335 1750

**Emergency phone number**

03 9335 4400

**Emergency Contact Name**

Mr Ian Cameron

**E-mail Address**

sales@culbeag.com.au

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

pH adjustment. Water treatment.

**Additional Information**

Where a \* is inserted in text this is a referral to list of References in Section 16.

## 2. HAZARD IDENTIFICATION

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**GHS classification of the substance/mixture**

SP1 Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

SP3 Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

ED1 Eye Damage/Irritation: Category 1

SC-1A Skin Corrosion/Irritation: Category 1A

**Signal Word (s)**

DANGER

**Hazard Statement (s)**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

**Pictogram (s)**

Corrosion



#### Precautionary statement – Prevention

P234 Keep only in original container.  
P260 Do not breathe mist / vapours / spray.  
P264 Wash hands thoroughly after handling.  
P280 Wear protective gloves / protective clothing / eye protection / face protection.

#### Precautionary statement – Response

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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 or doctor/physician.  
P321 Specific treatment (see specific First Aid Measures in Safety Data Sheet or on label of this product). on this label).  
P363 Wash contaminated clothing before reuse.  
P390 Absorb spillage to prevent material damage.

#### Precautionary statement – Storage

Store in corrosive resistant container or in a container with a corrosion resistant inner liner.  
Store locked up.

#### Precautionary statement – Disposal

P501 Disposal of contents/containers in accordance with State, Territorial or Commonwealth regulations for waste disposal.

#### IMPORTANT NOTE(S)

NOTE: The pictogram for environmental effects that is displayed above is not required by Work, Health and Safety regulations in Australia.

The statement regarding Acute Aquatic Toxicity i.e AA3- Hazardous to the Aquatic Environment - Acute Hazard: Category 1 is included in this subsection and inclusion of the hazard class pictogram is to acknowledge international product knowledge and provide a warning to the user of this product of potential environmental effects if a spill or misuse occurs.

#### Other Information

In Australia the POISON CENTER is the Poisons Information Centre (Telephone 13 11 26).

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

Name	CAS	Proportion
Water	7732-18-5	54 %
Sodium Hydroxide	1310-73-2	46 %

### 4. FIRST-AID MEASURES

#### Inhalation

Remove person to fresh air if effects occur. Consult a doctor.

#### Ingestion

If swallowed DO NOT induce vomiting. Immediately give water to rinse mouth. Do NOT swallow rinse water. Give a glass of water to drink. Never give fluids or induce vomiting if the patient is unconscious or is having convulsions. Transport to a hospital or a doctor immediately.

#### Skin

If skin or hair contact occurs, drench with water while removing contaminated clothing and footwear. Continue to flush skin and hair with running water for at least 30 minutes. It is important to remove contaminated clothing and footwear. Obtain medical attention promptly.

**Eye contact**

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre (131126) or a doctor, or for at least 15 minutes. Obtain medical attention immediately.

**First Aid Facilities**

Safety shower with an eye wash unit adjacent to work area where liquid sodium hydroxide is handled and used. Drinking quality water readily available.

**Advice to Doctor**

Product is a corrosive liquid. Will cause tissue, eye or skin burns. Treat symptomatically.

**Other Information**

For advice, contact the Poisons Information Centre (Telephone in Australia ; 13 1126) or consult a doctor at once. Show this SDS or the label of the product to the attending doctor.

## 5. FIRE-FIGHTING MEASURES

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**Suitable Extinguishing Media**

Product does not burn. Use fire extinguishing medium suitable for source of fire. Avoid jets of water being directed at containers of product. Use water spray to keep containers cool if involved in a fire.

**Hazards from Combustion Products**

None

**Specific Methods**

Keep people away. Isolate fire area and deny unnecessary entry.

Fight fire with extinguishing media suitable for other materials that are burning.

Wear basic fire fighting clothing and equipment. Self-contained breathing apparatus (SCBA) may be required depending on the complexity of the fire.

Avoid contact with this product during fire-fighting operations. If contact likely, change to full chemical resistant clothing with SCBA.

Consider fighting fire from a remote location.

**Specific Hazards Arising From The Chemical**

Product will not burn. Product reacts with water. Reaction may produce heat. Reaction may be violent. Product reacts with some metals (See Section 10) generating flammable hydrogen. Violent steam generation or eruption may occur upon application of a direct water stream to hot liquid.

**Hazchem Code**

2R

## 6. ACCIDENTAL RELEASE MEASURES

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**Spills & Disposal**

Clear non-emergency personnel from area. Product is highly corrosive to skin and eyes.

Wear appropriate protective clothing and equipment. Contain spilled product to prevent contamination of soil, sewers, drains, or surface water. If feasible collect contained material for responsible disposal, otherwise neutralise carefully with dilute acid.

Carefully dilute small spills of sodium hydroxide with water. Trained personnel can carefully neutralise residual sodium hydroxide with a dilute acid preferably acetic acid.

If spilled product enters drains or sewers advise local emergency authority/seervices.

## 7. HANDLING AND STORAGE

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**Precautions for Safe Handling**

When diluting a concentrated sodium hydroxide solution:

Always add portions of the sodium hydroxide solution to water with constant stirring. NEVER add water to the sodium hydroxide solution.

The water should be luke warm i.e. about 25°C. Never start with hot or cold water.

The addition of sodium hydroxide solution to a liquid will cause a rise in temperature. If the sodium hydroxide becomes concentrated in one area or is added too rapidly or is added to hot or warm liquid, a rapid temperature increase can result in dangerous mists, boiling or spattering. Stir constantly while adding caustic soda to water. Overheating may cause an immediate VIOLENT ERUPTION of liquid.

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

Product is classified as a DANGEROUS GOOD; Class 8 - CORROSIVE, for storage.

Store away from incompatible materials. Keep away from acids, most organic materials, oxidising agents, food stuffs and ammonium salts. Do NOT store in aluminium containers - corrosion of the metal will occur and generate highly flammable hydrogen gas. Store in a dry place. Keep containers tightly closed when not in use. Check regularly for leaks and spills. Store above 16°C.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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### **Occupational exposure limit values**

National Exposure Standard (NES)\* declared by SWA\* for the workplace environment:

Sodium hydroxide - 2 mg per cubic metre, Peak; where:-

Peak = Peak limitation, which means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.

This exposure standard is not set as the division between safe and hazardous concentrations - aim to keep airborne concentrations as low as possible all the time!

### **Appropriate Engineering Controls**

Product is not volatile therefore good natural ventilation should be adequate. Avoid generating mists or spray. If a mist is formed keep clear or else wear full protective clothing and self-contained breathing apparatus.

### **Respiratory Protection**

Atmospheric levels should be maintained below the exposure standard. If respiratory irritation is experienced, select and fit an approved air-purifying respirator in accord with to AS/NZS 1716\* and AS/NZS 1715\*.

### **Eye Protection**

It is imperative to prevent eye contact. Use approved (AS/NZS 1337\*) chemical goggles. Wear an approved full face shield which allows the use of chemical goggles or wear an approved(see section above) full-face respirator to protect the face and eyes when there is any likelihood of splashes. Guidance to recommended practices for eye protection in the workplace environment is provided in AS/NZS 1336\*.

An eye wash fountain/unit should be located and readily accessible in immediate work area.

### **Body Protection**

Avoid all contact with this product unless wearing appropriate protective clothing. Use approved protective clothing impervious to this material. Selection of protective clothing can be guided by reference to AS/NZS 4501\*. Selection of specific items will depend on operations. Wear long-sleeved overalls. Use elbow length PVC gloves, aprons and boots - leather boots are not recommended or suitable for proposed operations. A safety shower should be located in immediate work area. Launder clothing thoroughly before re-use. Contaminated leather items such as footwear, belts and watchbands should be removed and destroyed.

### **Hygiene Measures**

It is a good work practice to wash hands, arms, and face before eating, drinking or smoking or using toilet facilities and at the end of each working period, especially before departing for home.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

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### **Appearance**

Colourless to slightly hazy liquid. No odour.

### **Melting Point**

5.5°C

### **Boiling Point**

approximately 136°C

### **Solubility in Water**

Soluble in all proportions

### **Specific Gravity**

1.482 @ 20°C

### **pH**

14.

### **Vapour Pressure**

1.5 mm Hg @ 20°C (water). Sodium hydroxide is not volatile.

**Flash Point**

None

**Flammability**

Product is a non-combustible liquid.

**Flammable Limits - Lower**

Not applicable

**Flammable Limits - Upper**

Not applicable

## 10. STABILITY AND REACTIVITY

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**Reactivity**

Keep container closed when not in use otherwise carbon dioxide from atmosphere will be absorbed and react with the sodium hydroxide. Reacts vigorously with acids. Will react with aluminium, tin, brass and zinc releasing hydrogen - a flammable gas! Generates heat when diluted with water - refer to Section 7 and below re diluting procedure.

**Chemical Stability**

Stable under recommended storage conditions.

**Conditions to Avoid**

Heat is generated when concentrated sodium hydroxide solution is mixed with water. Spattering and boiling can occur. Control dilution processes by adding small portions of liquid sodium hydroxide to water while stirring.

Flammable hydrogen gas can be generated from contact with metals such as;

aluminium, brass, zinc & tin. Hydrogen can form explosive mixtures with air in confined spaces.

Avoid contact with acids, halogenated organic compounds, organic nitro compounds, glycols.

Sodium hydroxide solution reacts with various reducing sugars such as fructose, galactose, maltose, dry whey solids to produce carbon monoxide. Monitor bulk tank atmosphere for carbon monoxide to ensure safety of personnel.

Reaction with ammonium compounds will release toxic ammonia and with amines will release the toxic amine many of which are volatile.

**Incompatible materials**

Aluminium, zinc (galvanised containers), tin, brass.

## 11. TOXICOLOGICAL INFORMATION

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**Toxicology Information**

Acute lethality has not been determined.

Swallowing can result in vomiting, diarrhoea, abdominal pain and chemical burns to gastrointestinal tract.

**Ingestion**

Very CORROSIVE to tissue.

Will cause severe burns to the mouth and throat. Swallowing of the product will cause irritation and/or ulceration of the digestive tract.

**Inhalation**

Vapour not likely to cause injury due to very low vapour pressure. However inhalation of mists may cause severe irritation of the upper respiratory tract (nose and throat). Symptoms may include sneezing, sore throat or excessive mucous generation ("runny nose").

**Skin**

Very CORROSIVE. Brief single exposure may cause severe irritation and skin burns. Frequently repeated or prolonged contact will cause skin/tissue damage (necrosis).

**Eye**

Very CORROSIVE. If in eye will cause very severe irritation with corneal injury that may result in permanent impairment of vision and most probably blindness.

**Chronic Effects**

No relevant information found.

## 12. ECOLOGICAL INFORMATION

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### Environmental Protection

Material is slightly toxic to aquatic organisms on an acute basis. Avoid entry into watercourses, drains and sewers. Entry into watercourse or bodies may cause shifts in pH outside range 5 - 10 which may be toxic to aquatic organisms. Highly corrosive to animal and plant life.

## 13. DISPOSAL CONSIDERATIONS

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### Waste Disposal

Dispose of wastes in an approved waste disposal system in accordance with State, Territorial or Commonwealth regulations.

### Container Disposal

Triple rinse with water 'empty' containers before return to supplier.

## 14. TRANSPORT INFORMATION

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### Transport Information

Classified as a DANGEROUS GOOD, Class 8 - CORROSIVE, for transport by road, rail, sea or air. Road and rail transport should be in accord with the Australian Dangerous Goods Code.

Do not transport with food or foodstuff empties.

### U.N. Number

1824

### UN proper shipping name

SODIUM HYDROXIDE SOLUTION

### Transport hazard class(es)

8

### Packing Group

II

### Hazchem Code

2R

### IERG Number

37

## 15. REGULATORY INFORMATION

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### Regulatory information

Classified as a HAZARDOUS CHEMICAL - CORROSIVE, according to the GHS criteria\* approved by SWA with hazard classifications of:-

Corrosive to metals - Category 1;

Eye damage/irritation - Category 1 and

Skin damage/irritation - Category 1A.

Classified as a DANGEROUS GOOD according to the ADG Code\* - refer to section 14 above for details.

### Poisons Schedule

S6

### Packaging & Labelling

Container is marked (labelled) with a DANGEROUS GOOD; Class 8 - CORROSION pictogram in accord with the ADG Code\*.

In the workplace, decanted quantities of the product must be labelled in accord with Code of Practice for labelling workplace hazardous chemicals\*.

For labelling purposes pictogram, essential statements for hazard, response, prevention, storage and disposal are detailed in Section 2 of this SDS above. Note: that ADG Class 8 pictogram on label is acceptable as equivalent to the Hazardous Chemical pictogram for Corrosion.

### **Australia (AICS)**

Sodium hydroxide is included in the Australian Inventory of Chemical Substances (AICS)\*.

### **Other Information**

If this product is repacked for sale to the general public the packaging and labelling requirements of the relevant Act controlling the sale of scheduled poisons need to be adopted. Refer to SUSMP\* or NATIONAL POISONS STANDARD\*.

## **16. OTHER INFORMATION**

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### **Date of preparation or last revision of SDS**

Revised 10 May 2019 and re-issued. Safety Data Sheet(SDS) is prepared in accord with SWA Code of Practice\* for preparing a SDS. Revisions include Correction of product name to "LIQUID CAUSTIC SODA, 46%, added an Additional Statement in Section 1 to highlight the referral mark \* and minor editorial revisions to Sections 2,5,6,8,10,15 and 16.

### **References**

- \* Australian Dangerous Goods Code, 7th Edition.
- \* List of Hazardous Chemicals section of SWA Hazardous Chemicals Information system and Globally Harmonised Scheme (GHS) for Classifying and Labelling Hazardous Chemicals (3rd edition).
- \* Exposure Standards for Atmospheric Contaminants in the Occupational Environment in exposure standards section of HSIS, as amended by SWA.
- \* SWA = SAFE WORK AUSTRALIA formerly known as National Occupational Health and Safety Commission.
- \* AS = Australian Standard
- \* NZS = New Zealand Standard.
- \* AS/NZS1716: Respiratory protective devices.
- \* AS/NZS1715: Selection, use and maintenance of respiratory protective devices.
- \* AS/NZS1337: Eye protectors for the industrial applications.
- \* AS/NZS1336: Recommended practices for eye protection in the industrial environment.
- \* AS/NZS 4501.2:2006: Occupational protective clothing - General requirements.
- \* National Code of Practice for Labelling of Workplace Hazardous Chemicals. SWA. September 2015.
- \* The National Poisons Standard; Now published on Comlaw website.
- \* SUSMP = Standard for the Scheduling of Medicines and Poisons; Therapeutic Goods Authority.
- \* Australian Inventory of Chemical Substances (AICS) maintained by National Industrial Chemicals Notification and Assessment Scheme.
- \* National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals SWA. February 2016. AS/Law

### **Contact Person/Point**

BUSINESS HOURS: Product Information Officer, (03) 9335 4400

This SDS summarises our best knowledge of the health and safety hazard information of this product and how to safely handle and use the product in the workplace. Each user must review this SDS in the context of how the product will be handled and used in the workplace. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is available on our website at [www.culbeag.com.au](http://www.culbeag.com.au)

## **END OF SDS**

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