



# Liquid Caustic Soda

## Safety Data Sheet

According to ABNT NBR 14725-4

Date of issue: 06 June 2017 Revision date: 06 June 2017 Supersedes: 14 March 2013 Version: 2.0

### SECTION 1: Identification of Product and Company

#### 1.1. Product identifier

Trade name : Liquid Caustic Soda  
Recommended use : Industrial use

#### 1.2. Company identification

Braskem S.A.  
Rua Oxigênio, 765 – Polo Petroquímico  
CEP: 42810-000 - Camaçari/BA – Brasil

Braskem S.A.  
Av. Assis Chateaubriand, 5260 – Pontal da Barra  
CEP: 57010-900 - Maceió/AL – Brasil

productsafety@braskem.com

Emergency number : +55 71 3413-3399  
0800 821 660

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Corrosive to metals, Category 1  
Skin corrosion/irritation, Category 1A  
Serious eye damage/eye irritation, Category 1

#### 2.2. Label elements

##### GHS-BR labelling

Hazard pictograms (GHS-BR)



GHS05

Signal word (GHS-BR) : Danger

Hazard statements (GHS-BR) : H290 - May be corrosive to metals  
H314 - Causes severe skin burns and eye damage

Precautionary statements (GHS-BR) : P234 - Keep only in original container  
P260 - Do not breathe mist, spray  
P264 - Wash hands thoroughly after handling  
P280 - Wear eye protection, protective gloves, protective clothing  
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  
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 doctor, a POISON CENTER  
P363 - Wash contaminated clothing before reuse  
P390 - Absorb spillage to prevent material damage  
P405 - Store locked up  
P406 - Store in corrosive resistant container with a resistant inner liner  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

#### 2.3. Other hazards not contributing to the classification

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%
Sodium hydroxide	(CAS-No.) 1310-73-2	50

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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible). Remove immediately contaminated clothing. Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: Immediately call a POISON CENTER or doctor/physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after eye contact	: 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/physician.
First-aid measures after ingestion	: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Rinse mouth.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.
Symptoms/effects after skin contact	: Causes severe burns. Prolonged skin contact may cause a severe effect, progressing to a delayed burn.
Symptoms/effects after eye contact	: Causes serious eye damage. Can cause blindness.
Symptoms/effects after ingestion	: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Ingestion may cause nausea, vomiting and diarrhea.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Note to physician	: Treat symptomatically.
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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam. Carbon dioxide. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Under fire conditions, hazardous fumes will be present.
Explosion hazard	: No direct explosion hazard.
Reactivity	: Reacts violently with (some) acids. Thermal decomposition generates: Corrosive vapours.

#### 5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent firefighting water from entering the environment.
Protective equipment for firefighters	: Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

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

General measures	: Wear recommended personal protective equipment. Avoid contact with skin and eyes.
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##### 6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Ventilate spillage area. Stop leak if safe to do so. Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

##### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Equip clean-up crew with proper protection.
Emergency procedures	: Evacuate unnecessary personnel. Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection. Stop leaks if it can be done without personal risk. Keep upwind. Ventilate area.

#### 6.2. Environmental precautions

Avoid release to the environment. Prevent contamination of soil, drains and surface waters. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Small spillages: Dilute with plenty of water. Drench affected area with water for at least 15 minutes. Large quantities: Contain large spillage with sand or earth. Collect all waste in suitable and labelled containers and dispose according to local legislation. Neutralise spill carefully with any weak acid and flush remainder with plenty of water. Flush residue with large amounts of water. Store away from other materials.
- Other information : Dispose of materials or solid residues at an authorized site.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : May be corrosive to metals.
- Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing mist or spray. NEVER pour water into this substance; when dissolving or diluting always add it slowly to the water.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

- Technical measures : Comply with applicable regulations.
- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Incompatible materials. Store in a well-ventilated place. Keep cool. Keep container closed when not in use.
- Incompatible materials : Acids. Halogenated compounds. May be corrosive to metals.
- Packaging materials : Store in a corrosion resistant container with a resistant inner liner.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Sodium hydroxide (1310-73-2)		
USA	Local name	Sodium hydroxide
USA	ACGIH Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA	Regulatory reference	ACGIH 2017

### 8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Environmental exposure controls : Avoid release to the environment.

### 8.3. Personal protective equipment

- Hand protection : Impermeable protective gloves. Polyvinyl alcohol or nitrile-butyl rubber gloves.
- Eye protection : Chemical goggles or face shield.
- Respiratory protection : An approved organic vapour respirator/supplied air or self-contained breathing apparatus must be used when vapour concentration exceeds applicable exposure limits.

## SECTION 9: Physical and chemical properties

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

- Physical state : Liquid
- Appearance : Clear.
- Colour : Colourless
- Odour : Odourless
- Odour threshold : Not available
- pH : Not available
- Melting point : 12 °C (53.6 °F)
- Freezing point : Not available
- Boiling point : 140 - 145 °C (284 - 293 °F)
- Flash point : Not applicable
- Relative evaporation rate (butylacetate=1) : Not available
- Flammability (solid, gas) : Not available
- Explosive limits : Not applicable
- Vapour pressure : Not available

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Relative vapour density at 20 °C	: Not available
Relative density	: Not available
Specific gravity / density	: 1.53
Solubility	: Water: Soluble
Log Pow	: Not available
Log Kow	: Not available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
Viscosity, kinematic	: > 25.39 mm²/s (20 °C)
Viscosity, dynamic	: Not available

### 9.2. Other information

Not available

## SECTION 10: Stability and reactivity

Chemical stability	: Stable at ambient temperature and under normal conditions of use
Conditions to avoid	: High temperature
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates: Corrosive vapours
Incompatible materials	: Acids, Halogenated compounds. May be corrosive to metals
Possibility of hazardous reactions	: Organic materials, Strong acids. Gives off hydrogen by reaction with metals
Reactivity	: Reacts violently with (some) acids. Thermal decomposition generates: Corrosive vapours

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not available
Acute toxicity (dermal)	: Not available
Acute toxicity (inhalation)	: Not available
Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not available
Germ cell mutagenicity	: Not available
Carcinogenicity	: Not available
Reproductive toxicity	: Not available
STOT-single exposure	: Not available
STOT-repeated exposure	: Not available
Aspiration hazard	: Not available
Potential Adverse human health effects and symptoms	: Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.
Symptoms/effects after skin contact	: Causes severe burns. Prolonged skin contact may cause a severe effect, progressing to a delayed burn.
Symptoms/effects after eye contact	: Causes serious eye damage. Can cause blindness.
Symptoms/effects after ingestion	: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Ingestion may cause nausea, vomiting and diarrhea.

## SECTION 12: Ecological information

### 12.1. Toxicity

Acute aquatic toxicity	: Not available
Chronic aquatic toxicity	: Not available

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

GWPmix comment	: No known effects from this product.
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### SECTION 13: Disposal considerations

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose of at authorized waste collection point. Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Do not allow into drains or water courses. Avoid release to the environment.

### SECTION 14: Transport information

#### Classification for LAND transport: ANTT

UN Number	: UN1824
Proper Shipping Name	: HIDRÓXIDO DE SÓDIO SOLUÇÃO
Class / Division	: 8
Risk Number	: 80
Packing Group	: II
Environmental Hazards	: Product is not considered environmentally hazardous

#### Classification for SEA transport: IMO - IMDG

UN Number	: UN1824
Proper Shipping Name	: SODIUM HYDROXIDE SOLUTION
Class / Division	: 8
Packing Group	: II
Environmental Hazards	: Product is not considered marine pollutant based on available data
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	
Product name	: Sodium hydroxide solution

#### Classification for AIR transport: IATA - ICAO

UN Number	: UN1824
Proper Shipping Name	: Sodium hydroxide solution
Class / Division	: 8
Packing Group	: II
Environmental Hazards	: Product is not considered environmentally hazardous

This information does not intend to convey all specific regulatory or operational requirements/information relating to the product, therefore it cannot be considered exhaustive. Consult ANTT, IMO and ICAO regulations before transporting the product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

### SECTION 15: Regulatory information

No additional information available

### SECTION 16: Other information

Other information : None.

Braskem - SDS\_Brazil (modified 170525)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. It warns that the handling of any chemical substance requires the previous knowledge of its hazards for the user. It is up to the user of the product company providing this SDS to and promote the training of its employees about possible risks come upon of the product. The information contained herein is not absolute, but only general information on the use of the chemical and indication of safety and security measures.*