SAFETY DATA SHEET

# Caustic Soda (Sodium Hydroxide Solution), 5 - 51%

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

#### Trade name

Caustic Soda (Sodium Hydroxide Solution), 5 - 51%

#### Other names / Synonyms

Caustic Soda Liquor, Sodium Hydroxide Solution, Lye

The Poisons Act 1972, as amended by the Control of Poisons and Explosives Precursors Regulations 2015 and the Control of Explosives Precursors and Poisons Regulations 2023, applies to 'reportable poisons' supplied by Industrial Chemicals Limited, although there is no requirement to verfiy professional users:

Sodium hydroxide, above 12% w/w CAS No. 1310-73-2

Please be aware that the purchaser may have duties in relation to regulated and reportable substances. Further information is available from GOV.UK. e.g. see Guidance supplying explosives precursors and poisons.

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Relevant identified uses of the substance or mixture

Treatment of drinking water, European Committee Approval , Treatment of waste water, pH regulating, Manufacture of substance, Manufacturing soaps, Cleaning product
Restricted to professional users.

#### Use descriptors (UK REACH)

| Sectors of use | Description |
|---|---|
| | Intermediate Industrial use. pH regulating agent Treatment of drinking water, has received approval by the European Committee for Standardisation. Raw material. Washing and cleaning products Formulating packaged products Professional use Consumer use |

#### Uses advised against

None known.

### 1.3. Details of the supplier of the safety data sheet

#### Company and address

**Industrial Chemicals Limited**
Jupiter House,
Warley Hill Business Park,
The Drive,
Warley,
Brentwood,
Essex,
CM13 3BE
United Kingdom
+44 (0)1375 389000
+44 (0)1375 389110
www.icgl.co.uk

#### E-mail

sds@icgl.co.uk

#### Revision

10/04/2024

#### SDS Version

8.0

#### Date of previous version

12/02/2024 (7.0)

### 1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 “First aid measures”.

## SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

### 2.1. Classification of the substance or mixture

Met. Corr. 1; H290, May be corrosive to metals.
Skin Corr. 1A; H314, Causes severe skin burns and eye damage.
Eye Dam. 1; H318, Causes serious eye damage.

### 2.2. Label elements

#### Hazard pictogram(s)

#### Signal word

Danger

#### Hazard statement(s)

May be corrosive to metals. (H290)
Causes severe skin burns and eye damage. (H314)

#### Precautionary statement(s)

##### General

-

##### Prevention

Do not breathe vapour/mist. (P260)
Wear face protection/protective gloves/protective clothing. (P280)

##### Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . (P303+P361+P353)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)

##### Storage

Store in a container with a resistant inner liner. (P406)

##### Disposal

Dispose of contents/container in accordance with local regulation (P501)

#### Hazardous substances

sodium hydroxide;caustic soda

#### Additional labelling

Not applicable.

### 2.3. Other hazards

#### Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. ▼Mixtures

| Product/substance | Identifiers | % w/w | Classification | Note |
|---|---|---|---|---|
| sodium hydroxide;caustic soda | CAS No.: 1310-73-2<br>EC No.: 215-185-5<br>UK-REACH: 01-6126796028-6-0018<br>Index No.: 011-002-00-6 | 5-51% | Skin Corr. 1A, H314<br>Skin Corr. 1B, H314 (SCL: 2.00 %)<br>Skin Irrit. 2, H315 (SCL: 0.50 %)<br>Eye Irrit. 2, H319 (SCL: 0.50 %) | |

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

### Other information

-

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

#### Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

#### Skin contact

Flush exposed area with water for a long time - at least 30 minutes. It may be necessary to flush for several hours. Use a comfortable water temperature (20-30 °C). Contact Poison Information/doctor/hospital for further advice on follow-up and treatment.
Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

#### Eye contact

If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

#### Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit from returning to the mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

#### Burns

Not applicable.

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

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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

IF exposed or concerned:
Get immediate medical advice/attention.

### Information to medics

Bring this safety data sheet or the label from this product.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

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

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:
Some metal oxides

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.
Hazchem Code: 2R

## SECTION 6: Accidental release measures

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

Avoid direct contact with spilled substances.
Ensure adequate ventilation, especially in confined areas.
Contaminated areas may be slippery.

### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.
Keep unauthorized persons away from the spill

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

### 6.4. Reference to other sections

See section 13 “Disposal considerations” on handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid direct contact with the product.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

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

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Store in a container with a resistant inner liner.

#### Recommended storage material

Use containers made of the following materials: Suitable plastic material. Polyethylene-lined mild steel.

#### Storage temperature

Dry, cool and well ventilated
Vessels should not be open to air

#### Incompatible materials

Strong acids
Aluminium
Magnesium
Zinc
Tin
Bronze

### 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

sodium hydroxide;caustic soda
Short term exposure limit (15 minutes) (mg/m$^3$): 2

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002. EH40/2005 Workplace exposure limits (Fourth Edition 2020).

#### DNEL

sodium hydroxide;caustic soda

| Duration: | Route of exposure: | DNEL: |
|---|---|---|
| Long term – Local effects - Workers | Inhalation | 1 mg/m$^3$ |

#### PNEC

No data available.

### 8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

#### General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

#### Exposure scenarios

There are no exposure scenarios implemented for this product.

### Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

### Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.
Ensure that eyewash stations and safety showers are located within easy reach.
Apply standard precautions during use of the product. Avoid inhalation of vapours.

### Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

### Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

## Individual protection measures, such as personal protective equipment

### Generally

Use only UKCA marked protective equipment.

### Respiratory Equipment

| Type | Class | Colour | Standards |
|---|---|---|---|
| If mists are formed, a respirator must be worn. If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Particulate filter, type P2. | | | |

### Skin protection

| Recommended | Type/Category | Standards | |
|---|---|---|---|
| Chemical suit, PVC | | |  |

### Hand protection

| Material | Glove thickness (mm) | Breakthrough time (min.) | Standards | |
|---|---|---|---|---|
| Cotton/Latex | - | > 120 | EN374-2, EN374-3, EN388 |  |
| Vinyl/PVC | - | - | EN388 |  |
| Latex/Neoprene | 0.6 | - | EN374-2, EN388 |  |

### Eye protection

| Type | Standards | |
|---|---|---|
| Chemical splash goggles | | |
| Face shield | EN166 |  |

## SECTION 9: Physical and chemical properties

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

**Physical state**
Liquid

**Colour**
Colourless

**Odour / Odour threshold**
Odourless

**pH**
-

**pH in solution**
(14%)

**Density (g/cm$^3$)**
-

**Relative density**
For 50% Membrane grade (20 °C)

**Kinematic viscosity**
For 50% Membrane grade cP (20 °C)

**Particle characteristics**
Does not apply to liquids.

**Phase changes**

**Melting point/Freezing point (°C)**
12 For 50% Membrane grade

**Softening point/range (waxes and pastes) (°C)**
Does not apply to liquids.

**Boiling point (°C)**
142°C @ For 50% Membrane grade

**Vapour pressure**
Testing not relevant or not possible due to the nature of the product.

**Relative vapour density**
Testing not relevant or not possible due to the nature of the product.

**Decomposition temperature (°C)**
Testing not relevant or not possible due to the nature of the product.

**Data on fire and explosion hazards**

**Flash point (°C)**
Testing not relevant or not possible due to the nature of the product.

**Flammability (°C)**
Testing not relevant or not possible due to the nature of the product.

**Auto-ignition temperature (°C)**
Testing not relevant or not possible due to the nature of the product.

**Lower and upper explosion limit (% v/v)**
Testing not relevant or not possible due to the nature of the product.

**Solubility**

**Solubility in water**
Miscible with Water

**n-octanol/water coefficient (LogKow)**
Testing not relevant or not possible due to the nature of the product.

**Solubility in fat (g/L)**
Testing not relevant or not possible due to the nature of the product.

### 9.2. Other information

**Decomposition temperature (Self-reactive substances and mixtures) (°C)**
Thermally stable to boiling point; does not decompose. Precipitation of metal hydroxide crystals can occur below 12C.

**Oxidizing properties**
Testing not relevant or not possible due to the nature of the product.

**Other physical and chemical parameters**
No data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity
No data available.

### 10.2. Chemical stability
The product is stable under the conditions, noted in section 7 “Handling and storage”.

### 10.3. Possibility of hazardous reactions
None known.

### 10.4. Conditions to avoid
None known.

### 10.5. Incompatible materials
Strong acids
Aluminium
Magnesium
Zinc
Tin
Bronze

### 10.6. Hazardous decomposition products
Thermal decomposition may produce corrosive vapours.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

#### Acute toxicity
Based on available data, the classification criteria are not met.

#### Skin corrosion/irritation
Causes severe skin burns and eye damage.

#### Serious eye damage/irritation
Causes serious eye damage.

#### Respiratory sensitisation
Based on available data, the classification criteria are not met.

#### Skin sensitisation
Based on available data, the classification criteria are not met.

#### Germ cell mutagenicity
Based on available data, the classification criteria are not met.

#### Carcinogenicity
Based on available data, the classification criteria are not met.

#### Reproductive toxicity
Based on available data, the classification criteria are not met.

#### STOT-single exposure
Based on available data, the classification criteria are not met.

#### STOT-repeated exposure
Based on available data, the classification criteria are not met.

#### Aspiration hazard
Based on available data, the classification criteria are not met.

### 11.2. Information on other hazards

#### Long term effects
Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

#### Endocrine disrupting properties
This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

#### Other information
None known.

## SECTION 12: Ecological information

### 12.1. Toxicity
No data available.

### 12.2. Persistence and degradability
Based on available data, the classification criteria are not met.

### 12.3. Bioaccumulative potential
Based on available data, the classification criteria are not met.

### 12.4. Mobility in soil
No data available.

### 12.5. Results of PBT and vPvB assessment
This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

### 12.6. Endocrine disrupting properties
This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

### 12.7. Other adverse effects
None known.

## SECTION 13: Disposal considerations

### Waste treatment methods
Product is covered by the regulations on hazardous waste.
HP 8 – Corrosive
Dispose of contents/container to an approved waste disposal plant.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

### EWC code
Not applicable.

### Specific labelling

### Contaminated packing
Packaging containing residues of the product must be disposed of similarly to the product.

## SECTION 14: Transport information

| | 14.1 UN / ID | 14.2 UN proper shipping name | 14.3 Hazard class(es) | 14.4 PG* | 14.5 Env** | Other information: |
|---|---|---|---|---|---|---|
| ADR | UN1824 | SODIUM HYDROXIDE SOLUTION | Transport hazard class: 8<br>Label: 8<br>Classification code: C5<br>  | II | No | Limited quantities: 1 L<br>Tunnel restriction code: (E)<br>See below for additional information. |
| IMDG | UN1824 | SODIUM HYDROXIDE SOLUTION | Transport hazard class: 8<br>Label: 8<br>Classification code: C5<br>  | II | No | Limited quantities: 1 L<br>EmS: F-A S-B<br>See below for additional information. |
| IATA | UN1824 | SODIUM HYDROXIDE SOLUTION | Transport hazard class: 8<br>Label: 8<br>Classification code: C5<br>  | II | No | See below for additional information. |

* Packing group

** Environmental hazards

### Additional information

ADR / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.
IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.
IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.
This product is within scope of the regulations of transport of dangerous goods.
Hazchem Code: 2R

### 14.6. Special precautions for user

Not applicable.

### 14.7. Maritime transport in bulk according to IMO instruments

No data available.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Restrictions for application

Restricted to professional users.
People under the age of 18 shall not be exposed to this product.

#### Demands for specific education

No specific requirements.

#### SEVESO - Categories / dangerous substances

Not applicable.

#### Additional information

Not applicable.

#### Sources

The Management of Health and Safety at Work Regulations 1999.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.
Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.
Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

### 15.2. Chemical safety assessment

No

## SECTION 16: Other information

### ▼Full text of H-phrases as mentioned in section 3

H314, Causes severe skin burns and eye damage.
H315, Causes skin irritation.
H319, Causes serious eye irritation.

### The full text of identified uses as mentioned in section 1

= Intermediate Industrial use. pH regulating agent Treatment of drinking water, has received approval by the European Committee for Standardisation. Raw material. Washing and cleaning products Formulating packaged products Professional use Consumer use

### Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CE = Conformité Européenne (European conformity)
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement
EuPCS = European Product Categorisation System
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

### Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

### ▼The safety data sheet is validated by

LWetton

### ▼Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: GB-en