

SAFETY DATA SHEET 10% Caustic Soda Solution

according to Regulation (EC) No. 2015/830

Revision Date: 07-Jul-2021
Preparation Date 07-Jul-2021

Revision Number: 1
Internal ID Code HM009690

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

1.1. Product Identifier

Product Name 10% Caustic Soda Solution
Internal ID Code HM009690

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

Recommended Use Commodity Chemical
Uses advised against Consumer use

1.3. Details of the supplier of the safety data sheet

Halliburton Energy Services
Halliburton House, Howemoss Place
Kirkhill Industrial Estate
Dyce
Aberdeen, AB21 0GN
United Kingdom
+44 1224 776888

www.halliburton.com

For further information, please contact:

E-mail Address: fdunexchem@halliburton.com

1.4. Emergency telephone number

+44 8 08 189 0979 / 1-760-476-3961

Global Incident Response Access Code: 334305

Contract Number: 14012

Emergency telephone - Article 45 - (EC)1272/2008	
Austria	Poison Information Centre (AT): +43-(0)1-406 43 43
Belgium	Poison center (BE): +32 70 245 245
Bulgaria	Bulgarian poison centre: +359 2 915-44-09 or +359 2 915-43-46
Croatia	Centar za kontrolu otrovanja (CKO): (+385 1) 23-48-342 (Poison Control Center (PCC) - Institute for Medical Research and Occupational Health)
Cyprus	1401; +357 22 88 7171
Czech Republic	+420 224 919 293; +420 224 915 402
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
Estonia	16662 (Local Poison Information Centre); (+372) 626 93 90 (International Poison Information Centre)
Europe	112
Finland	Poison Information Centre (FI):+358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790
Greece	+30 210 779 3777
Hungary	+36 (06) 80 201-199
Iceland	543 2222 / 543 1000
Ireland	National Poisons Information Centre (IE): +353 1 8379964
Italy	Poison Center, Milan (IT): +39 02 6610 1029
Latvia	(+371) 67042473 (International number for the National Toxicology Centre)
Lithuania	+370 (85) 2362052
Luxembourg	(+352) 8002 5500
Malta	2122 4071
Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only

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	available to health professionals)
Norway	Poisons Information (NO):+ 47 22 591300
Poland	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
Portugal	CIAV - Centro de Informação Antivenenos (Portuguese Poison Centre): + 351 213 303 271
Romania	+40 21 318 36 06
Slovakia	+421 2 5477 4166
Slovenia	112
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	Poisons Information Center (SV):+46 8 33 12 31
Switzerland	Poison Center: Tel 145; +41 44 251 51 51
Turkey	Ulusal Zehir Danisma Merkezi (UZEM) :114 Acil Saglik Hizmetleri : 112
United Kingdom	NHS Direct (UK): +44 0845 46 47

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin Corrosion/Irritation	Category 1 A - H314
Substances/mixtures corrosive to metal.	Category 1 - H290

2.2. Label Elements

Hazard Pictograms



Signal Word: Danger

Hazard Statements:

H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage

Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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
P390 - Absorb spillage to prevent material damage

Contains

Substances

Sodium hydroxide

CAS Number

1310-73-2

2.3. Other Hazards

None known

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Mixture

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Substances	EINECS	CAS Number	PERCENT (w/w)	EU - CLP Substance Classification	REACH Reg. No
Sodium hydroxide	215-185-5	1310-73-2	10 - 30%	Met. Corr. 1 (H290) Skin Corr. 1A (H314) STOT SE 3 (H335)	No data available

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
Eyes	In case of contact, immediately flush eyes with plenty of water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Seek immediate medical attention/advice. Suitable emergency eye wash facility should be immediately available
Skin	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.
Ingestion	Rinse mouth with water many times. Get medical attention, if symptoms occur

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

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

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

Notes to Physician Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

Do NOT spray pool fires directly with water. A solid stream of water directed into hot burning liquid can cause splattering.

5.2. Special hazards arising from the substance or mixture

Special exposure hazards in a fire

Decomposition in fire may produce harmful gases.

5.3. Advice for firefighters

Special protective equipment for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use appropriate protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes and clothing.

See Section 8 for additional information.

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

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6.3. Methods and material for containment and cleaning up

Dike far ahead of liquid spill for later disposal. Neutralize to pH of 6-8. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

6.4. Reference to other sections

See Section 8 and 13 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not breathe dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation. Use appropriate protective equipment. Avoid contact with eyes, skin, or clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Store in a well ventilated area. Store in original container. Store in corrosive resistant container with a resistant inner liner.

7.3. Specific end use(s)

Exposure scenario No information available

Other Guidelines No information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Substances	CAS Number	EU	UK	Netherlands	France
Sodium hydroxide	1310-73-2	Not applicable	STEL: 2 mg/m ³	Not applicable	TWA: 2 mg/m ³

Substances	CAS Number	Germany	Spain	Portugal	Finland
Sodium hydroxide	1310-73-2	Not applicable	2 mg/m ³ STEL [VLA-EC]	Ceiling: 2 mg/m ³	Not applicable

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Sodium hydroxide	1310-73-2	TWA: 2 mg/m ³ STEL" 4 mg/m ³	2 mg/m ³ STEL	TWA: 2 mg/m ³ STEL: 2 mg/m ³	Not applicable

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Sodium hydroxide	1310-73-2	Not applicable	TWA: 0.5 mg/m ³ STEL: 1 mg/m ³	TWA: 2 mg/m ³ STEL: 2 mg/m ³	TWA: 1 mg/m ³

Substances	CAS Number	Denmark	Romania	Croatia	Cyprus
Sodium hydroxide	1310-73-2	Ceiling: 2 mg/m ³	Not applicable	STEL: 2 mg/m ³	Not applicable

Substances	CAS Number	Bulgaria	Turkey
Sodium hydroxide	1310-73-2	TWA: 2.0 mg/m ³	Not applicable

Derived No Effect Level (DNEL)

No information available

Worker

Substances	Long-term exposure - systemic effects, Inhalation	Acute / short term exposure - systemic effects, Inhalation	Long-term exposure - local effects, Inhalation	Acute / short term exposure - local effects, Inhalation	Long-term exposure - systemic effects, Dermal	Acute / short term exposure - systemic effects, Dermal	Long-term exposure - local effects, Dermal	Acute / short term exposure - local effects, Dermal	Hazards for the eyes - local effects
Sodium hydroxide	Not available	Not available	1 mg/m ³	Not available	Not available	Not available	Not available	Not available	Not available

General Population

Substances	Long-term exposure - systemic effects,	Acute / short term exposure - systemic	Long-term exposure - local effects,	Acute / short term exposure - local	Long-term exposure - systemic effects,	Acute / short term exposure - systemic	Long-term exposure - local effects,	Acute / short term exposure - local	Long-term exposure - systemic effects,	Acute / short term exposure - local	Hazards for the eyes - local

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	Inhalation	effects, Inhalation	Inhalation	effects, Inhalation	Dermal	effects, Dermal	Dermal	effects, Dermal	Oral	effects, Oral	effects
Sodium hydroxide	Not available	Not available	1 mg/m ³	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas

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.

Hand Protection

Manufacturer's directions for use should be observed because of great diversity of types. Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Neoprene gloves.

Skin Protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron, rain jacket, pants or coverall, as appropriate, to prevent skin contact.

Eye Protection

Chemical goggles; also wear a face shield if splashing hazard exists. (EN-166)

Other Precautions

Eyewash fountains and safety showers must be easily accessible.

Environmental Exposure Controls

Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid

Color

Clear colorless

Odor: Odorless

Odor

No information available

Threshold:

Property

Values

Remarks/ - Method

pH:

13

Freezing Point / Range

Melting Point / Range

0 °C

Pour Point / Range

No data available

Boiling Point / Range

112 °C

Flash Point

No data available

Flammability (solid, gas)

No data available

Upper flammability limit

No data available

Lower flammability limit

No data available

Evaporation rate

No data available

Vapor Pressure

No data available

Vapor Density

No data available

Specific Gravity

1.08

Water Solubility

Soluble in water

Solubility in other solvents

No data available

Partition coefficient: n-octanol/water

No data available

Autoignition Temperature

No data available

Decomposition Temperature

No data available

Viscosity

No data available

Explosive Properties

No information available

Oxidizing Properties

No information available

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9.2. Other information

VOC Content (%)

No data available

SECTION 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 oxidizers. Contact with metals.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Inhalation

May cause respiratory irritation.

Eye Contact

Causes serious eye damage.

Skin Contact

Causes severe burns.

Ingestion

Causes burns of the mouth, throat and stomach.

Chronic Effects/Carcinogenicity

No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

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

Rat = Rat, Rabbit = Rabbit, dust = dust

Substances	CAS Number	Skin corrosion/irritation
Sodium hydroxide	1310-73-2	Causes severe burns

Substances	CAS Number	Serious eye damage/irritation
Sodium hydroxide	1310-73-2	Causes severe eye burns. (Rabbit)

Substances	CAS Number	Skin Sensitization
Sodium hydroxide	1310-73-2	Did not cause sensitization on laboratory animals (guinea pig)

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

Substances	CAS Number	Mutagenic Effects
Sodium hydroxide	1310-73-2	Did not show mutagenic effects in animal experiments In vitro tests did not show mutagenic effects.

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Substances	CAS Number	Carcinogenic Effects
Sodium hydroxide	1310-73-2	No data of sufficient quality are available.

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

Substances	CAS Number	STOT - single exposure
Sodium hydroxide	1310-73-2	May cause respiratory irritation.

Substances	CAS Number	STOT - repeated exposure
Sodium hydroxide	1310-73-2	No significant toxicity observed in animal studies at concentration requiring classification. Not applicable due to corrosivity of the substance.

Substances	CAS Number	Aspiration hazard
Sodium hydroxide	1310-73-2	Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity effects

Product is not classified as hazardous to the environment.

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.)

growth rate = growth rate, similar substance = similar substance, activated sludge = activated sludge, reproduction = reproduction

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

12.5. Results of PBT and vPvB assessment

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Substances	PBT and vPvB assessment
Sodium hydroxide	Not applicable

12.6. Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods

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

Contaminated Packaging

Follow all applicable national or local regulations.

SECTION 14: Transport information

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

ADN

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

ADR/RID

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

IATA/ICAO

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

14.1. UN Number

UN1824

14.2. UN proper shipping name:

Sodium Hydroxide Solution

14.3. Transport Hazard Class(es): 8

14.4. Packing Group

II

14.5. Environmental Hazards:

Not applicable

14.6. Special Precautions for User None

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

SECTION 15: Regulatory information

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

International Inventories

US TSCA Inventory All components listed on inventory or are exempt.
Canadian Domestic Substances List (DSL) All components listed on inventory or are exempt.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

Germany, Water Endangering WGK 1: Low hazard to waters.

Classes (WGK)

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.
Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

Substances	CAS Number	Seveso III	TA LUFT
Sodium hydroxide	1310-73-2	Not applicable	Not applicable

Substances	CAS Number	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization
Sodium hydroxide	1310-73-2	Not applicable	Not applicable

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

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
H335 - May cause respiratory irritation

Key or legend to abbreviations and acronyms used in the safety data sheet

bw – body weight
CAS – Chemical Abstracts Service
CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures
EC – European Commission
EC10 – Effective Concentration 10%
EC50 – Effective Concentration 50%
EEC – European Economic Community
ErC50 – Effective Concentration growth rate 50%
IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL0 – Lethal Loading 0%
LL50 – Lethal Loading 50%
MARPOL – International Convention for the Prevention of Pollution from Ships
mg/kg – milligram/kilogram
mg/L – milligram/liter
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration
NTP – National Toxicology Program

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OEL – Occupational Exposure Limit
PBT – Persistent Bioaccumulative and Toxic
PC – Chemical Product category
PEL – Permissible Exposure Limit
ppm – parts per million
PROC – Process category
REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL – Short Term Exposure Limit
SU – Sector of Use category

Key literature references and sources for data

www.ChemADVISOR.com/

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Revision Note
Initial Release

This safety data sheet complies with the requirements of Regulation (EC) No. 2015/830

Disclaimer Statement

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End of Safety Data Sheet