

# Caustic Soda Flakes

## Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)  
Issue date: 10/20/2024 Revision date: 10/19/2027 Version: 1.0

### SECTION 1: Identification

#### 1.1. GHS Product identifier

Product form : Substance  
Substance name : Caustic Soda Flakes

#### 1.2. Other means of identification

No additional information available

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

Recommended use : Manufacture  
Cleaning  
Water treatment chemicals  
pH control

#### 1.4. Supplier's details

##### Supplier

Chemical Marketing and Distribution Co. Ltd.  
Dammam 31431,  
P.O. Box 1053  
Saudi Arabia  
T +966138217777 - F +966138472648  
[sales@bci.com.sa](mailto:sales@bci.com.sa)

#### 1.5. Emergency phone number

Emergency number : +966138217777

### SECTION 2: Hazard identification

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

##### Classification according to the United Nations GHS

Skin corrosion/irritation, Category 1 H314  
Full text of H-statements: see section 16  
Adverse physicochemical, human health and environmental effects : Causes severe skin burns and eye damage.

#### 2.2. GHS Label elements, including precautionary statements

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN) :



Signal word (GHS UN) : Danger  
Hazard statements (GHS UN) : H314 - Causes severe skin burns and eye damage  
Precautionary statements (GHS UN) : P260 - Do not breathe dusts or mists.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P280 - Wear protective clothing, eye protection, face protection, protective gloves.  
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P302+P361+P354 - IF ON SKIN: Take off immediately all contaminated clothing.  
Immediately rinse with water for several minutes.  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P354+P338 - IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P316 - Get emergency medical help immediately.

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P321 - Specific treatment (see supplemental first aid instruction on this label).  
P363 - Wash contaminated clothing before reuse.  
P405 - Store locked up.  
P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards which do not result in classification

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : Caustic Soda Flakes  
CAS-No. : 1310-73-2  
Product identifiers: See section 1.1

Name	Product identifier	%	Classification according to the United Nations GHS
Sodium hydroxide	CAS-No.: 1310-73-2	> 98	Met. Corr. 1, H290 Skin Corr. 1A, H314

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general : Call a physician immediately. If you feel unwell, seek medical advice (show the label where possible).  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Obtain medical attention if breathing difficulty persists.  
First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately. Seek medical attention if ill effect or irritation develops.  
First-aid measures after eye contact : Rinse immediately with plenty of water. Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. Seek medical attention if ill effect or irritation develops.  
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact : Burns.  
Symptoms/effects after eye contact : Serious damage to eyes.  
Symptoms/effects after ingestion : Burns.

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

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Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released. Thermal decomposition can lead to the release of irritating gases and vapours.

### 5.3. Special protective actions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

General measures : Evacuate unnecessary personnel.

Personal Precautions, Protective Equipment and Emergency Procedures : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Prevention Measures for Secondary Accidents : Avoid release to the environment.

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear personal protective equipment. Wear suitable protective clothing. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

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

For containment : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Collect spillage.

Methods for cleaning up : Mechanically recover the product. On land, sweep or shovel into suitable containers. Minimise generation of dust. 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

Precautions for safe handling : Ensure good ventilation of the work station. Provide good ventilation in process area to prevent formation of vapour. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Handle in accordance with good industrial hygiene and safety procedures.

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

Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container closed when not in use. Store locked up. Store in a well-ventilated place. Keep cool.

Packaging materials : Polyethylene. Steel containers.

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Sodium hydroxide (1310-73-2)

##### USA - ACGIH - Occupational Exposure Limits

Local name	Sodium hydroxide
ACGIH OEL C	2 mg/m <sup>3</sup>
Remark (ACGIH)	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH 2024

#### 8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.
Other information	: Do not eat, drink or smoke during use.

#### 8.3. Individual protection measures, such as personal protective equipment (PPE)

##### Personal protective equipment:

Wear protective gloves. Wear protective clothing. Wear foot protection. Wear a mask.

Hand protection	: Impermeable protective gloves. protective gloves
Eye protection	: Chemical goggles or safety glasses. Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Wear suitable respiratory equipment in case of insufficient ventilation

##### Personal protective equipment symbol(s)



#### 8.4. Exposure limit values for the other components

No additional information available

### SECTION 9: Physical and chemical properties

#### 9.1. Basic physical and chemical properties

Physical state	: Solid
Colour	: White.
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: 318 °C
Freezing point	: Not applicable
Boiling point	: 1390 °C
Flammability	: Non flammable.
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: > 12 (Strongly alkaline)
pH solution	: Not available
Viscosity, kinematic (calculated value) (40 °C)	: Not applicable
Partition coefficient n-octanol/water (Log Pow)	: 2.13
Partition coefficient n-octanol/water (Log Kow)	: Not available

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Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Solubility	: Soluble in water. Ether: ≤ g/100ml
Particle size	: Not available

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

Explosive limits	: Not applicable
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Moisture, incompatible materials

### 10.5. Incompatible materials

Acids. ammonium salts. metals. organic halogens.

### 10.6. Hazardous decomposition products

Sodium oxides (NaOx).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

Caustic Soda Flakes (1310-73-2)	
Unknown acute toxicity (GHS UN)Unknown acute toxicity (GHS UN)	99% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 99% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 99% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Skin corrosion/irritation	: Causes severe skin burns. pH: > 12 (Strongly alkaline)
Serious eye damage/irritation	: Assumed to cause serious eye damage pH: > 12 (Strongly alkaline)
Respiratory or skin sensitization	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

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### Caustic Soda Flakes (1310-73-2)

Viscosity, kinematic

Not applicable

Other information

: Likely routes of exposure: ingestion, inhalation, skin and eye.

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

### Sodium hydroxide (1310-73-2)

LC50 - Fish [1]

45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID)

EC50 - Crustacea [1]

40.4 mg/l Test organisms (species): Ceriodaphnia sp.

EC50 - Other aquatic organisms [1]

> 33 mg/l waterflea

### 12.2. Persistence and degradability

### Caustic Soda Flakes (1310-73-2)

Persistence and degradability

Rapidly degradable

### Sodium hydroxide (1310-73-2)

Persistence and degradability

Not rapidly degradable

### 12.3. Bioaccumulative potential

### Caustic Soda Flakes (1310-73-2)

Partition coefficient n-octanol/water (Log Pow)

2.13

Bioaccumulative potential

No additional information available

### Sodium hydroxide (1310-73-2)

Partition coefficient n-octanol/water (Log Pow)

-3.88

### 12.4. Mobility in soil

### Caustic Soda Flakes (1310-73-2)

Mobility in soil

No additional information available

### 12.5. Other adverse effects

Ozone : Not classified (Based on available data, the classification criteria are not met)

Other adverse effects : No additional information available

Effect on the ozone layer : No additional information available.

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose of in a safe manner in accordance with local/national regulations.

Ecological waste information : Avoid release to the environment.




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### SECTION 14: Transport information

In accordance with UN RTDG / IMDG / IATA /

UN RTDG	IMDG	IATA
<b>14.1. UN number</b>		
1823	1823	1823
<b>14.2. UN Proper Shipping Name</b>		
SODIUM HYDROXIDE, SOLID	SODIUM HYDROXIDE, SOLID	Sodium hydroxide, solid
<b>14.3. Transport hazard class(es)</b>		
8	8	8
		
<b>14.4. Packing group</b>		
II	II	II
<b>14.5. Environmental hazards</b>		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available		

### 14.6. Special precautions for user

#### UN RTDG

Limited quantities (UN RTDG) : 1 kg  
Excepted quantities (UN RTDG) : E2  
Packing instruction (UN RTDG) : P002, IBC08  
Special packing provisions (UN RTDG) : B2, B4  
Portable tank and bulk container special instructions (UN RTDG) : T3  
Portable tank and bulk container special provisions (UN RTDG) : TP33

#### IMDG

Limited quantities (IMDG) : 1 kg  
Excepted quantities (IMDG) : E2  
Packing instructions (IMDG) : P002  
IBC packing instructions (IMDG) : IBC08  
IBC special provisions (IMDG) : B21, B4  
Tank instructions (IMDG) : T3  
Tank special provisions (IMDG) : TP33  
EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE  
EmS-No. (Spillage) : S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES  
Stowage category (IMDG) : A  
Segregation (IMDG) : SGG18, SG35  
Properties and observations (IMDG) : White pellets, flakes, lumps or solid blocks, deliquescent. Reacts with ammonium salts, evolving ammonia gas. In the presence of moisture, corrosive to aluminium, zinc and tin. Causes burns to skin, eyes and mucous membranes. Reacts violently with acids.

#### IATA

PCA Excepted quantities (IATA) : E2  
PCA Limited quantities (IATA) : Y844  
PCA limited quantity max net quantity (IATA) : 5kg  
PCA packing instructions (IATA) : 859  
PCA max net quantity (IATA) : 15kg  
CAO packing instructions (IATA) : 863

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CAO max net quantity (IATA) : 50kg  
ERG code (IATA) : 8L

### 14.7. Transport in bulk according to IMO instruments

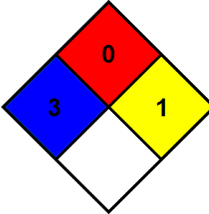
Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

## SECTION 16: Other information

NFPA health hazard	: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.	
NFPA fire hazard	: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.	
NFPA reactivity	: 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.	
NFPA specific hazard	: None	
Hazard Rating		
Health	: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given	
Flammability	: 0 Minimal Hazard - Materials that will not burn	
Physical	: 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.	
Issue date	: 10/20/2024	
Revision date	: 10/19/2027	

Other information : None.

Full text of H-statements:	
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A



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Full text of H-statements:	
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage

Safety Data Sheet (SDS), UN

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.