SDS-CAUSTICSODAF 13 Aug 2026

SAFETY DATA SHEET

CAUSTIC SODA FLAKES (98%)

CAS No.: 1310-73-2

This Safety Data Sheet is issued by Suraj Chemicals as the distributor/supplier of record, based on manufacturer and published GHS / regulatory reference data for this substance. Users should also consult the specific manufacturer's SDS where available.

1. IDENTIFICATION

GHS Product identifier

CAUSTIC SODA FLAKES (98%)
Sodium Hydroxide, Anhydrous; Caustic Soda
CAS: 1310-73-2

Other means of identification

Not relevant

Recommended use of the chemical and restrictions on use

Relevant uses: Chemical intermediate, pH adjustment/neutralization, soap and detergent manufacture, water treatment, pulp and paper processing. For industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3.

Supplier's details

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS:
Classification of this product has been carried out in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), using the standard, publicly documented classification for sodium hydroxide (solid), translated from the R/S phrases given in the source document (R34, R35, R36/37/38, R41).

Skin Corr. 1A	Skin corrosion, Category 1A, H314
Eye Dam. 1	Serious eye damage, Category 1, H318
Met. Corr. 1	Corrosive to metals, Category 1, H290

GHS label elements, including precautionary statements

GHS: Danger

Hazard statements

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

Precautionary statements

P234: Keep only in original container.
P260: Do not breathe dust/mist.
P264: Wash exposed skin thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
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.
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.
P405: Store locked up.
P406: Store in a corrosion-resistant container with a resistant inner liner.
P501: Dispose of contents/container in accordance with local/regional/national regulations.

Other hazards which do not result in classification

Repeated exposure may cause skin dryness or cracking (R66 in the source pre-GHS document).

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances

Chemical description: Sodium Hydroxide, Anhydrous (NaOH), flake form

In accordance with Annex 4.3.3 of the GHS, the product contains:

Identification	Chemical Name / Classification	Concentration
CAS: 1310-73-2	Sodium Hydroxide – Skin Corr. 1A: H314; Met. Corr. 1: H290 – Danger	Min. 96% (typical grade 98%)

To obtain more information on the hazards of the substances, consult sections 11, 12 and 16.

Mixtures

Non-applicable

4. FIRST AID MEASURES

Description of necessary first-aid measures

Seek medical aid immediately for all types of exposure, showing the SDS of this product.

By inhalation
Remove the victim from exposure. Support respiration; give oxygen if necessary.

By skin contact
Wash the affected area with plenty of water and soap. Remove contaminated clothes and shoes. Seek medical aid.

By eye contact
Wash with plenty of water for 15–20 minutes. Seek medical aid immediately.

By ingestion/aspiration
Give water or milk followed by dilute vinegar or fruit juice. Do not induce vomiting. If in doubt seek medical attention immediately.

Most important symptoms/effects, acute and delayed

Short term: severe irritation, burns to skin and eyes (eye damage, possible blindness), pulmonary edema (inhalation), nausea and vomiting (ingestion). Long term: dermatitis, visual disturbances; rare reports of bronchial inflammatory reaction on long-term inhalation.

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

Seek medical aid immediately for all types of exposure.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Suitable: Non-combustible material; use extinguishing agents appropriate for the surrounding fire.
Unsuitable: Do not use water directly on the material.

Specific hazards arising from the chemical

On combustion, emits fumes of sodium oxide (Na2O). Material is alkaline and may raise the pH of surface water with low buffering capacity if released.

Special protective actions for fire-fighters

Wear full protective clothing, goggles and masks. Move containers from the fire area if this can be done without risk. Keep out of water supplies and sewers.

Additional provisions
Material is not subject to spontaneous combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Avoid generation of dust. Avoid eye and skin contact. Avoid inhalation and ingestion. Wear appropriate personal protective equipment.

For emergency responders
Wear protective equipment as above. See section 8.

Environmental precautions

Prevent contamination of soil and water.

Methods and materials for containment and cleaning up

Do not touch spilled material. Prevent it entering sewers. Dry manual lifting of the spilled material is suggested without making dust. Wash the surface with plenty of water and soap.

Reference to other sections

See sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling

A. General precautions for safe use
Avoid contact with eyes, skin or clothing. Use only with adequate ventilation.

B. Technical recommendations for the prevention of fires and explosions
Keep away from heat, sparks and flames. Do not store in aluminium containers or use aluminium fittings/transfer lines, as flammable hydrogen gas may be generated on contact with moisture.

C. Technical recommendations on general occupational hygiene
Provide local exhaust ventilation where dust or mist may be generated. Ensure applicable exposure limits are not exceeded.

D. Technical recommendations to prevent environmental risks
Prevent contamination of soil and water; keep separated from incompatible substances.

Conditions for safe storage, including any incompatibilities

A. Specific storage requirements

Storage	Cool, dry, well-ventilated place; containers kept closed
Container material	Do NOT use aluminium containers/fittings

B. General conditions for storage
Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Keep separated from incompatible substances (water, acids, halogenated compounds, alkali-sensitive metals). Store on wooden pallets.

Specific end use(s)

Except for the instructions already specified, it is not necessary to provide any special recommendation regarding the uses of this product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Identification	Occupational Exposure Limit Type	Value
Sodium Hydroxide CAS: 1310-73-2	OSHA TWA	2 mg/m³
	OSHA Ceiling	2 mg/m³
	ACGIH Ceiling	2 mg/m³
	Mexico Peak	2 mg/m³

Appropriate engineering controls

Provide local exhaust ventilation where dust or mist may be generated to ensure exposure limits are not exceeded.

B. Respiratory protection

A NIOSH-approved respirator with N95 (dust, fume, mist) filters may be used where concentrations are expected to exceed exposure limits. A half-face piece air-purifying respirator may be used up to 10X the exposure limit; full facepiece up to 50X. Supplied air should be used above 50X or in uncontrolled release scenarios.

C. Specific protection for the hands

Suitable gloves: butyl rubber, natural rubber, neoprene or nitrile. Discard contaminated leather goods.

D. Eye and face protection

Chemical-resistant safety goggles; splash-resistant goggles with face shield for wet mixing. Provide an emergency eyewash fountain and quick drench.

E. Bodily protection

Protective clothing to minimize skin contact – Tychem® SL or similar chemical-protective suit for wet material; disposable overalls (Tyvek®) for dry material.

F. Additional emergency measures

Emergency eyewash fountain and quick-drench safety shower should be available.

Environmental exposure controls

Prevent contamination of soil and water resources; product is highly soluble in water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	
Physical state at 20°C	Solid
Appearance	White flakes
Color	White
Odor	Odourless
Odour threshold	Not applicable
Volatility	
Boiling point at atmospheric pressure	1390°C
Vapour pressure	Not pertinent
Evaporation rate	Not pertinent
Product Description	
Specific gravity	0.7–0.8 gm/cc at 25°C (bulk, flake form)
Molecular weight	40.00 g/mol
pH	Not applicable (solid); strongly alkaline in solution
Solubility in water	100% soluble
Solubility in organic solvents	Soluble in alcohol, methanol and glycerol
Decomposition temperature	Not established
Melting point/freezing point	318°C
Flammability	
Flash Point	Not pertinent
Flammability (solid, gas)	Not pertinent (non-combustible)
Autoignition temperature	Not pertinent
Lower / Upper flammability limit	Not pertinent

Other information

Explosive properties	No
Oxidising properties	No
Corrosive to metals	Yes – reacts with aluminium and other alkali-sensitive metals, generating flammable hydrogen gas

10. STABILITY AND REACTIVITY

Reactivity

Reactive with air (absorbs moisture, highly hygroscopic), water, acids and alkalis. Direct contact with water may cause a violent exothermic reaction.

Chemical stability

As supplied, stable at normal temperature and pressure. When exposed to air, it absorbs moisture.

Possibility of hazardous reactions

Carbon monoxide gas may form upon contact with reducing sugars, food and beverage products in enclosed spaces. Contact with powdered aluminium generates flammable hydrogen gas.

Conditions to avoid

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Not applicable	Absorbs moisture from air	Not applicable	Not applicable	Avoid contact with water/moisture

Incompatible materials

Water, acids, halogenated compounds, and prolonged contact with aluminium, brass, bronze, copper, lead, tin, zinc or other alkali-sensitive metals/alloys, nitromethane and nitro compounds.

Hazardous decomposition products

Not known under normal conditions; sodium oxide fumes on combustion.

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11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

In case of exposure that is repetitive, prolonged, or at concentrations higher than the recommended occupational exposure limits, adverse health effects may result depending on the means of exposure:

A. Ingestion (acute effect)
Severe irritation, burns, nausea, vomiting. LD50 (50% solution, oral, rat): 220 mg/kg.

B. Inhalation (acute effect)
Severe irritation, burns, pulmonary edema.

C. Contact with skin and eyes (acute effect)
Causes severe burns to skin; severe eye damage/blindness possible. LD50 (dermal, rabbit): 1350 mg/kg.

D. CMR effects (carcinogenicity, mutagenicity, reproductive toxicity)
No carcinogenicity data available; not mutagenic; no reproductive toxicity information available.

E. Sensitizing effects
No data available.

F. Specific target organ toxicity (STOT) – single exposure
Severe irritation/corrosive effects as noted above.

G. Specific target organ toxicity (STOT) – repeated exposure
Chronic effects due to long-term irritation: dermatitis, recurrent corneal ulceration and visual disturbances. Rare reports of long-term inhalation causing bronchial inflammatory reaction or obstructive airway dysfunction.

H. Aspiration hazard
No information available.

Product-specific toxicological information

Identification	Acute Toxicity	Genus
Sodium Hydroxide CAS: 1310-73-2	LD50 dermal: 1350 mg/kg	Rabbit
	LD50 oral (50% solution): 220 mg/kg	Rat

12. ECOLOGICAL INFORMATION

Exhibits slight toxicity to terrestrial organisms and moderate toxicity to aquatic flora and fauna.

Toxicity

Acute Toxicity	Species	Genus
Moderate toxicity (pH-driven effect)	Not specified	Aquatic flora & fauna

Persistence and degradability
This material is inorganic and not subject to biodegradation. It exists in the dissociated state in water.

Bioaccumulative potential
No bio-accumulation.

Mobility in soil

Koc	Henry	Dry Soil	Moist Soil
Not applicable	Not applicable	Highly soluble – contaminates water resources if released	

Results of PBT and vPvB assessment
Not applicable (inorganic substance).

Other adverse effects
May raise the pH of surface water with low buffering capacity.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Seal all waste in airtight containers for disposal as per the guidelines of national/regional regulations. Packing materials that become contaminated should be washed thoroughly with water before disposal by appropriate methods.

Refer to national and local regulations on waste management.

14. TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR/RID)

14.1 UN number	UN1823
14.2 UN proper shipping name	SODIUM HYDROXIDE, SOLID
14.3 Transport hazard class(es)	8 (Corrosive substance)
14.4 Packing group	II
14.5 Environmental hazard	No
14.6 Special precautions for user	Physico-chemical properties: see section 9
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not applicable

Transport of dangerous goods by sea (IMDG)

14.1 UN number	UN1823
14.2 UN proper shipping name	SODIUM HYDROXIDE, SOLID
14.3 Transport hazard class(es)	8 (Corrosive substance)
14.4 Packing group	II
14.5 Marine pollutant	No
14.6 Special precautions for user	Label: SODIUM HYDROXIDE SOLID
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not applicable

Transport of dangerous goods by air (IATA/ICAO)

14.1 UN number	UN1823
14.2 UN proper shipping name	SODIUM HYDROXIDE, SOLID
14.3 Transport hazard class(es)	8 (Corrosive substance)
14.4 Packing group	II
14.5 Environmental hazard	No
14.6 Special precautions for user	Physico-chemical properties: see section 9
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not applicable

15. REGULATORY INFORMATION

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

Danger symbols (per source pre-GHS classification): C (Corrosive), R (Reactive), N (Dangerous for the environment). Risk phrases: R20/21/22 (harmful by inhalation, skin contact and if swallowed), R34 (causes burns), R36/37/38 (irritating to eyes, respiratory system, skin), R41 (risk of serious damage to eyes), R50/53 (very toxic to aquatic organisms, long-term effects). These have been translated to the modern GHS H-statements shown in section 2.

Other legislation

Manufacture, Storage and Import of Hazardous Chemicals Rules 1989
The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)
The Chemical Accidents (Emergency Planning, Preparedness, and Response) Rules, 1996

16. OTHER INFORMATION

Legislation related to safety data sheets

This safety data sheet has been designed in accordance with Annex 4 – Guidance on the preparation of Safety Data Sheets of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The source manufacturer's MSDS used pre-GHS R/S phrase format; hazard statements in section 2 reflect the standard, publicly documented GHS translation for sodium hydroxide (solid).

Texts of the legislative phrases mentioned in sections 2 and 3

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

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

Advice related to training

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources

Manufacturer's reference MSDS for Caustic Soda Flakes (CAS 1310-73-2); publicly available GHS classification guidance for sodium hydroxide.

Abbreviations and acronyms

OSHA: Occupational Safety and Health Administration | ACGIH: American Conference of Governmental Industrial Hygienists | LD50: Lethal Dose 50 | ADR: European agreement concerning the international carriage of dangerous goods by road | IMDG: International maritime dangerous goods code | IATA: International Air Transport Association

Disclaimer: The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product; it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within Suraj Chemicals' awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

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