SAFETY DATA SHEET

SODA ASH DENSE

CAS No.: 497-19-8

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

SODA ASH DENSE
Sodium Carbonate; Disodium Carbonate; Carbonic Acid Sodium Salt; Soda Ash
CAS: 497-19-8

Other means of identification

EC No.: 207-838-8 | Molecular formula: Na_2CO_3 | Food additive: E500(i)

Recommended use of the chemical and restrictions on use

Relevant uses: Glass manufacturing, detergent and soap manufacturing, paper production, general chemical processing and manufacturing, pH control/water treatment, textile 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:
OSHA HazCom Standard 29CFR 1910.1200 / GHS classification:

Eye Irrit. 2A	Eye irritation, Category 2A, H319

GHS label elements, including precautionary statements

GHS: Warning

Hazard statements

H319 – Causes serious eye irritation.

Precautionary statements

P264: Wash skin thoroughly after handling.
P280: Wear eye protection/face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists, get medical advice/attention.

Other hazards which do not result in classification

Hazards not otherwise classified or not covered by GHS: None.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances

Chemical description: Sodium Carbonate (SODA ASH DENSE) – Chemical family: Alkali salt

Identification	Chemical Name / Classification	Concentration
CAS: 497-19-8 EC: 207-838-8	Sodium Carbonate – Eye Irrit. 2A: H319 – Warning	≥ 99%

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

Mixtures

Non-applicable

4. FIRST AID MEASURES

Description of necessary first-aid measures

General – check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on their back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim; give psychological aid; keep the victim calm and avoid physical strain. Depending on the victim's condition, transfer to doctor/hospital.

By inhalation

Remove victim to fresh air. If symptoms persist, get medical attention.

By skin contact

Rinse with water. Soap may be used. Do not apply chemical neutralizing agents. If symptoms persist, get medical attention.

By eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, get medical attention.

By ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything to an unconscious victim. If symptoms occur, get medical attention.

Most important symptoms/effects, acute and delayed	Inhalation: dry/sore throat, coughing, slight irritation; at high concentrations, irritation of the respiratory tract and nasal mucous membranes, and respiratory difficulties. Skin contact: prolonged contact may cause irritation. Eye contact: inflammation/damage of the eye tissue, corrosion of the eye tissue, lacrimation. Ingestion: nausea, vomiting, abdominal pain, irritation of the gastric/intestinal mucosa.
Indication of immediate medical attention and special treatment needed, if necessary	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use extinguishing agent suitable for the type of surrounding fire.
Specific hazards arising from the chemical	Fumes of sodium oxide; carbon oxides (CO_x).
Special protective actions for fire-fighters	Wear self-contained breathing apparatus and use personal protective equipment for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
Environmental precautions	Contain released substance. Do not release into surface water or sanitary sewer systems. Violent exothermic reaction with some acids, releasing harmful gases (carbon dioxide).
Methods and materials for containment and cleaning up	Prevent dust cloud formation. Scoop solid spill material into closed containers. Carefully collect the spill. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
Reference to other sections	For disposal, see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Use air conveying/mechanical systems for bulk transfer to storage. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment if release of airborne dust is expected.
Conditions for safe storage, including any incompatibilities	Store in original container. Keep in properly labeled containers. Keep container tightly closed. **Incompatible products** Aluminium, powdered aluminium and acids.
Specific end use(s)	Suitable packaging material: no data available. No additional requirement beyond the uses specified in section 1.2.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters	This product, as supplied, does not contain any hazardous material with occupational exposure limits established by region-specific regulatory bodies. Local nuisance dust standards apply.
Appropriate engineering controls	Where practical, provide general mechanical and/or local exhaust ventilation to prevent release of airborne dust into the work environment. An eye wash facility should be provided in storage and general work areas. **Personal Protective Equipment** **Eyes and Face:** For dusty or misty conditions, or where there is reasonable probability of eye contact, wear chemical safety goggles; do not wear contact lenses under these conditions. Safety glasses with side shields are recommended otherwise. **Skin and Body:** Wear suitable protective clothing, protective shoes or boots, and impervious gloves (rubber, neoprene) when handling solutions. **Respiratory:** In cases of inadequate ventilation, wear respirators and components approved by NIOSH/MSHA or EU CEN. **Control of environmental exposure** Prevent leaks and spills when it can be done safely. See sections 6.2, 6.3 and 13.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	
Appearance	White, granular solid
Odor	Odorless
Odor threshold	Not applicable
Product Description	
Molecular weight	105.99
pH	11.3 (1% solution in water)
Bulk density (dense grade)	0.9 – 1.1 g/l (dense grade)
Specific gravity	2.53 (vs. water)
Water solubility	212.5 g/l @ 20°C
Volatility / Thermal	
Melting point/freezing point	854°C (1569°F)
Boiling point/range	No information available
Decomposition temperature	400°C
Vapor pressure	No information available
Vapor density	No information available
Flammability	
Flash point	Not applicable
Flammability (solid/gas)	Not combustible, but may decompose to produce corrosive and/or toxic fumes
Upper/Lower flammability limit	No information available
Auto-ignition temperature	No information available

Other information

Physical hazards	No data available
Explosive properties	Not explosive
Oxidizing properties	Non-oxidizing
Viscosity, dynamic/kinematic	No information available
Partition coefficient	No information available

10. STABILITY AND REACTIVITY

Reactivity
None under normal use conditions.

Chemical stability
Stable. Decomposes by reaction with strong acid.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoid

Prolonged Air/Moisture Exposure
Avoid exposure to air or moisture over prolonged periods

Incompatible materials
Aluminium, powdered aluminium and acids.

Hazardous decomposition products
Sodium oxides, carbon oxides (CO_x).

Other precautions: when dissolving, add to water cautiously and with stirring, as solutions can get hot.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Route	Value	Species
Oral LD50	2,800 mg/kg	Rat
Dermal LD50	> 2,000 mg/kg	Rabbit
Inhalation LC50	2.3 mg/l, 2-hour exposure	Rat

Corrosion/Irritation
Skin (rabbit): mild irritant, 24 hours. Eyes: severe irritant, 24 hours.

Respiratory or skin sensitization, germ cell mutagenicity, reproductive toxicity, STOT (single/repeated exposure), aspiration hazard
No data available.

Carcinogenicity
No data available. Not recognized as carcinogenic by ACGIH, IARC, NTP or OSHA.

Chronic effects from short and long-term exposure
On continuous/repeated exposure/contact: red skin, dry skin, tingling/irritation of the skin, affection of the nasal septum.

12. ECOLOGICAL INFORMATION

Toxicity

Duration	Species	Value	Units
96 hour, LC50	Bluegill sunfish	300 – 320	mg/l
96 hour, TL_m	Mosquito-fish	1200	mg/l
48 hour, TL_m	Mosquito-fish	840	mg/l
48 hour, EC50	Daphnia magnia	265	mg/l
5 day, EC50	Nitszcheria linearis	242	mg/l

Persistence and degradability
Not applicable as an inorganic substance.

Bioaccumulative potential
Does not bioaccumulate.

Mobility in soil
Air: not applicable. Water: considerable solubility and mobility. Soil/sediments: low potential for absorption.

Results of PBT and vPvB assessment
Not applicable, inorganic substance.

Other adverse effects
No data available.

13. DISPOSAL CONSIDERATIONS

Disposal methods
When this product is discarded or disposed of as purchased, it is neither a characteristic nor a listed hazardous waste according to standard hazardous-waste criteria. As a non-hazardous waste the material may be disposed of in accordance with governmental regulations; check local or state regulations for applicable requirements prior to disposal. Any processing, usage, alteration, chemical additions to, or contamination of the product may alter the disposal requirements. It is the generator's responsibility to determine if a waste is hazardous.

14. TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR/RID)

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	No
14.6 Special precautions for user	Physico-chemical properties: see section 9
14.7 Transport in bulk	Not relevant

Transport of dangerous goods by sea (IMDG)

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	No
14.6 Special precautions for user	None
14.7 Transport in bulk	Not relevant

Transport of dangerous goods by air (IATA)

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	No
14.6 Special precautions for user	None
14.7 Transport in bulk	Not relevant

15. REGULATORY INFORMATION

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

This product is listed on the EU EINECS inventory (207-838-8) and classified under Annex I of the Substances Directive as Xi; R-36. It is generally permitted for use in food under EU Food Additives Directive 95/2/EC (E500) and by FSSAI (India), subject to prescribed limits. German Water Hazard Class: 1 (low hazard to waters).

Other legislation

The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)
Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989

Certifications (reference manufacturing grade)

The manufacturing-grade reference material is reported as NSF/ANSI 60 certified for drinking water treatment use (maximum use limit 200 mg/L for corrosion/scale control pH adjustment), and available to Kosher (OU) and Halal (IFANCA) certified specification. Certification status of the specific lot supplied by Suraj Chemicals should be confirmed at the time of order.

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).

Texts of the legislative phrases mentioned in sections 2 and 3

H319: Causes serious eye irritation.

The phrase indicated does not refer to the product itself; it is present merely for informative purposes and refers to the individual component which appears in section 3.

Advice related to training

Minimal training is recommended to prevent industrial risks for staff using this product, to facilitate comprehension of this safety data sheet and the product label.

Principal bibliographical sources

Manufacturer's Safety Data Sheet for Sodium Carbonate, Anhydrous (covering Dense, Natural Light and Synthetic Light Soda Ash grades).

Abbreviations and acronyms

SARA: Superfund Amendments and Reauthorization Act | CERCLA: Comprehensive Environmental Response, Compensation and Liability Act | TSCA: Toxic Substances Control Act | WHMIS: Workplace Hazardous Materials Information System (Canada) | DSL: Domestic Substances List | EINECS: European Inventory of Existing Commercial Chemical Substances | LD50: Lethal Dose 50 | LC50: Lethal Concentration 50 | EC50: Effective Concentration 50 | TL_m: Median Tolerance Limit

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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