



Aqua Chemical Supply, Inc.

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Sodium Carbonate, Anhydrous
 Alternate Product Name(s) Soda Ash, Disodium Carbonate Also: Dense Soda Ash, Soda Ash Light, Synthetic Light Soda Ash, Soda Ash Liquid, Natural Light Soda Ash, Natural Light HA Soda Ash
 Chemical Formula Na_2CO_3
 Product Use Glass manufacture, detergent manufacture, sodium chemicals and carbonate chemicals manufacture, pulp and paper, brine treatment, water hardness removal, pH adjustment in water or wastewater, flue gas desulphurization, coal treatment, ion exchange resin regeneration.
 Manufacturer/Supplier/Distributor:
 FMC Wyoming Corporation
 Alkali Chemicals Division
 1735 Market Street
 Philadelphia, PA 19103
 Emergency telephone number: For emergency assistance involving chemicals call CHEMTREC day or night at: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview: White, odorless, granular solid. Product is non-combustible. Reacts with acids to release carbon dioxide gas and heat. May irritate skin and eyes. Dusts may irritate respiratory tract. Not expected to be toxic to the environment, nor to aquatic organisms. Avoid simultaneous exposure to soda ash and lime dust. In the presence of moisture (i.e. perspiration) the two materials combine to form caustic soda (NaOH), which may cause burns.

Potential Health Effects:

Skin Prolonged contact may cause skin irritation (red, dry, cracked skin).

Eyes Irritating to the eyes.

Ingestions Although low in toxicity, ingestion may cause nausea, vomiting, stomach ache, and diarrhea.

Inhalation Prolonged inhalation of product dusts may irritate nose, throat, and lungs.

Chronic Effects Excessive, long term contact may produce "soda ulcers" on hands and perforation of the nasal septum. Sensitivity reactions may occur from prolonged and repeated exposure. This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Wt. %	EC No.	EC Class
Sodium Carbonate	497-19-8	99.8	207-838-8	Xi, R36

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. FIRST AID MEASURES

Skin Wash with plenty of soap and water. Get medical attention if irritation occurs and persists

Eyes Immediately flush with water for at least 15 minutes lifting the upper and lower eyelids intermittently. See a medical doctor or ophthalmologist as necessary.

Ingestions Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Contact a doctor or poison control center.

Inhalation Remove to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention.

Advice to Physician While internal toxicity is low, irritant effects of high concentrations may produce corneal opacities, and vesicular skin reactions in humans with abraded skin only. Treatment is symptomatic and supportive.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Not combustible, use extinguishing method suitable for surrounding fire.

Fire/Explosion Hazards: Not applicable.

Fire Fighting Procedures: Wear full protective clothing and self-contained breathing apparatus

Flammable Limits: Not applicable

Auto ignition Temperature: Not applicable

Hazardous Combustion

Products: Carbon dioxide.
 Sensitivity to Impact: None
 Sensitivity to Static Discharge: None

6. ACCIDENTAL RELEASE MEASURES

Extinguishing Media: Not combustible, use extinguishing method suitable for surrounding fire.
 Fire/Explosion Hazards: Not applicable.
 Fire Fighting Procedures: Wear full protective clothing and self-contained breathing apparatus
 Flammable Limits: Not applicable
 Auto ignition Temperature: Not applicable
 Hazardous Combustion
 Products: Carbon dioxide.
 Sensitivity to Impact: None
 Sensitivity to Static
 Discharge: None

7. HANDLING AND STORAGE

Handling: Use air conveying / mechanical systems for bulk transfer to storage. For manual handling of bulk transfer use mechanical ventilation to remove airborne dust from railcar, ship or truck. Use approved respiratory protection when ventilation systems are not available. Selection of respirators is based on the dust cloud generation. Keep material out of lakes, streams, ponds and sewer drains.
 Avoid eye contact or prolonged skin contact. Avoid breathing dusts. When dissolving, add to water cautiously and with stirring; solutions can get hot. Use good personal hygiene and housekeeping.
 Storage: Store in a cool dry area, away from acids. Prolonged storage may cause product to cake from atmospheric moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:
 Where possible, provide general mechanical and/or local exhaust ventilation to prevent release of airborne dust into the work environment. Eye wash facility should be provided in storage and general work area.
 Personal Protective Equipment
 Eyes and Face: For dusty or misty conditions, or when handling solutions where there is reasonable probability of eye contact, wear chemical safety goggles and hardhat. Under these conditions do not wear contact lenses. Otherwise, appropriate eye and face protection equipment (ANSI Z87 approved) should be selected for the particular use intended for this material. Safety glasses with side shields are recommended.
 Respiratory: Whenever dust in the worker's breathing zone cannot be controlled with ventilation or other engineering means, workers should wear respirators or dust masks approved by NIOSH/MSHA, EU CEN or comparable certification organization to protect them against airborne dust.
 Hands, Arms, and Body: Wear long-sleeve shirt and trousers, and impervious gloves for routine product use. Cotton gloves are sufficient for dry product; wear impervious (e.g., rubber, neoprene, etc.) gloves when handling solutions.
 Exposure Guidelines: Federal guidelines treat the ingredient(s) in this product as a nuisance dust, as no product-specific guidelines have been issued for exposure. As with all nuisance dusts, worker breathing zone concentrations should be measured by validated sampling and analytical methods. The following limits (OSHA and MSHA) apply to this material:
 Particulates Not Otherwise Regulated:
 OSHA (PEL / TWA): 15 mg/m³ (total dust); 5 mg/m³ (resp fraction) MSHA (PEL / TWA): 10 mg/m³ (total dust)
 Avoid simultaneous exposure to soda ash and lime dust. In the presence of moisture (i.e. perspiration) the two materials combine to form caustic soda (NaOH), which may cause burns.
 The information noted above provides general guidance for handling this product. Specific work environments and material handling practices will dictate the selection and use of personal protective equipment (PPE).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White, granular solid
 Odor: Odorless
 Formula: Na₂CO₃
 Molecular Weight:
 Bulk Density (g/l) Dense grades: 0.9 – 1.1
 Natural light grade: 0.7 – 0.9 Synthetic light grade: 0.5 – 0.7
 Specific Gravity: 2.533 (vs. water)
 Boiling Point: Decomposes

Melting Point: 854oC (1569oF)
 Evaporation Rate: Not applicable
 Percent Volatile: 0%
 Vapor Density: Not applicable
 Vapor Pressure: Not applicable
 pH (1% solution) 11.3
 Flash Point None

10. STABILITY AND REACTIVITY

Stability: Stable
 Conditions to Avoid: Contract with acids will release carbon dioxide, heat. Contract with lime dust in the presence of moisture can produce corrosive sodium hydroxide.
 Materials to avoid May react with aluminum, acids, fluorine, lithium, and 2,4,6- Trinitrotoluene.
 Polymerization: Will not occur.
 Hazardous Decomposition Products When heated to decomposition, carbon dioxide is released.
 Other Precautions: When dissolving, add to water cautiously and with stirring; solutions can get hot.

11. TOXICOLOGICAL INFORMATION

Eye: Severe irritant (50 mg, rabbit).
 Skin: Mild irritant (500 mg/24hr, rabbit). Minor irritation may occur on abraded skin. Not a sensitizer (tested at 0.25% solution).
 Oral: LD50, rat: 4,090 mg/kg
 Inhalation: LC50, rat, 2hr 2.3 mg/l
 24 – hour LC50: 800 mg/m³, 20 h exposure (guinea pig) (moderate toxicity)
 Chronic: Excessive, long term contact may produce “soda ulcers” on hands and perforation of the nasal septum. Sensitivity reactions may occur from prolonged and repeated exposure.
 Carcinogenicity: Not designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

12. ECOLOGICAL INFORMATION

Acute ecotoxicity: 96 – hour LC50: 265 – 565 mg/l (daphnia magna) (low toxicity)
 300 – 320 mg/l (blue gill sunfish) (low toxicity)
 96 – hour TLm: 1200 mg/l (mosquito-fish)
 48 – hour TLm: 840 mg/l (mosquito-fish)
 48 – hour EC50: 265 mg/l (daphnia magna)
 5 Day EC 50: 242 mg/l (Nitzscheria linearis)
 Chronic ecotoxicity: 7 Day EC, biomass: 14 mg/l (phytoplankton)
 Mobility: Air: Not Applicable
 Water: Considerable solubility and mobility. Soil / sediments: Non-significant adsorption
 Abiotic degradation: Water (hydrolysis): degradation’s products: carbonate (pH>10) /carbonic acid / carbon dioxide (pH<6). Soil: Hydrolysis as a function of pH.
 Biotic degradation: Aerobic / anaerobic: Not applicable (inorganic compound)
 Potential for bioaccumulation: Not applicable (ionizable inorganic compound)
 Observed effects are related to alkaline properties of the product. Product is not significantly hazardous for the environment.

13. DISPOSAL CONSIDERATION

Disposal Method: When this product is discarded or disposed of, as purchased, it is neither a characteristic nor a listed hazardous waste according to US Federal RCRA regulations (40 CFR 261). As a non-hazardous waste the material may be disposed of in a landfill in accordance with government 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. Under Federal regulations, it is the generator’s responsibility to determine if a waste is a hazardous waste.

14. TRANSPORT INFORMATION

Proper Shipping Name: Not regulated
 Primary Hazard Class / Division: Not regulated
 UN / NA Number: Not applicable
 Label(s), Placard(s), Marking(s): Not applicable
 Reportable Quantity (RQ) None
 49 STCC Number: Not Applicable
 ADR (EU), TDG (Canada) Not regulated

IMDG (sea) , ICAO (air), IATA (air) Not regulated

15. REGULATORY INFORMATION

UNITED STATES:

SARA Title III (Superfund Amendments and Reauthorization Act)

Section 302 Extremely Hazardous

Substances: 40CFR355, Appendix A Not listed

Section 311 Hazard Class 40CFR370 Immediate (acute)

Section 312 Threshold Planning

Quantity (TPQ) 40CFR370 No TPQ listed for sodium carbonate.

Section 313 Reportable Ingredients

40CFR372 Not listed

CERCLA (Comprehensive Environmental Response Compensation and Liability Act): 40CFR302.4 –

There is no listed RQ (reportable quantity) for this product.

TSCA (Toxic Substance Control Act)

This product is listed on the TSCA Inventory of Chemical Substances. No other TSCA rules affect this product

State Regulations: This product does not contain any components that are regulated under California Proposition 65.

Other: Clean Water Act (CWA) – Section 301/ 311: Not listed

Clean Air Act (CAA) – Section 112: Not regulated

CANADA:



WHMIS Classification: D2B Toxic Class E Corrosive Symbol: This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Ingredient Disclosure List Listed

DSL Status (Domestic substances list) Listed on DSL

EUROPEAN UNION:

EINECS Inventory Listed: 207-838-8

Annex I (Substances Directive) Listed: 011-005-00-2 Xi, R-36 (See label details in Section 16)

German Water Classification hazard class 1, low hazard to waters

EU - Food Additives Directive (95/2/EC)

- Annex I - Generally Permitted for Use in Foodstuff E500

INTERNATIONAL:

This product is also found on the chemical inventories of Australia, China, Korea, Japan and the Philippines.

16. OTHER INFORMATION

HMIS (Hazardous Material Identification System)

Health 2

Flammability 0

Physical Hazard 0

Personal Protection (PPE) B

Protection = B (Safety glasses and gloves)

4 = Severe, 3 = Serious, 2 = Moderate, 1 = Slight, 0 = Minimal

NFPA (National Fire Protection Association System)

Health 2

Flammability 0

Reactivity 0

Special None 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Insignificant

EC Labeling

Name of substance to appear on label. Sodium Carbonate

Symbol(s) Xi – irritating

Label Phrases R36: Irritating to eyes.

S2: Keep out of reach of children. S22: Do not breathe dust.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Other Information: Soda ash is produced in three principal grades: Dense, natural light and synthetic light soda ash. When these products are mixed in water they may be known as liquid soda ash. These grades differ only in physical characteristics such as bulk density and size and shape of particles, which influence flow characteristics and angle of repose. Other physical properties, as well as chemical as chemical properties of solutions, are common to each grade of soda ash.

Certified to ANSI / NSF 60 Concentration not to exceed 100 ppm when used for corrosion control or scale control pH adjustment.

Notice

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Do not use ingredient information and/or ingredient percentages in this SDS as a product specification. For product specification information refer to a product specification sheet and/or a certificate of analysis. These can be obtained from your local Aqua Chemical Supply, Inc. sales office.

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