

**ALL-CLEAR SODA ASH
Dense Soda Ash
Material Safety Data Sheet**

Manufactured by:
North American Chemical Company
8300 College Boulevard, Overland Park, Kansas 66210

1 CHEMICAL PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME: Dense Soda Ash
MANUFACTURER:
North American Chemical Company
8300 College Boulevard
Overland Park, KS 66210

EMERGENCY PHONE NUMBER:
24 Hour Information Service: 760-372-2291
CHEMTREC: 800-424-9300
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2 COMPOSITION/INFORMATION ON INGREDIENTS

Note: See Section 15 for Exposure Limits.

PRODUCT NAME: Dense Soda Ash

FORMULA: Na_2CO_3

CHEMICAL NAME: Sodium Carbonate

SYNONYMS: Bisodium carbonate, carbonic acid, disodium salt: carbonic acid sodium salt: crystal carbonate

COMPONENTS:

Material: Dense Soda Ash

CAS Number 497-19-8

Percent: 99.7%

Soda ash is hazardous under the OSHA Hazard Communication Standard based on animal chronic toxicity studies of similar organic borates.

3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Soda Ash is a white powdered substance that is not flammable, combustible, or explosive. Soda Ash decomposes at temperatures above 1,000°C, releasing carbon dioxide gas. Contact with eyes causes severe irritation and contact with skin or nose causes moderate irritation. Soda Ash has low toxic by ingestion, however, may cause burns of the gastrointestinal tract if swallowed.

ROUTES OF EXPOSURE; Inhalation, dermal and eye contact incidental ingestion.

INHALATION: Dust causes irritation to nose, throat and respiratory tract (see Section 15).

EYE CONTACT: Causes severe irritation.

DERMAL CONTACT: Dust causes irritation and redness of skin. Sensitivity reactions may occur from repeated topical use.

INGESTION: Low toxicity by ingestion. If swallowed, may cause burns of the mouth, nose and throat. Ingestion of large quantities may produce corrosion of the gastrointestinal tract, vomiting, diarrhea, circulatory collapse or death.

CANCER: Soda Ash (or any component of Soda ash) is not considered a carcinogen.

REPRODUCTIVE: No Available

TARGET ORGANS: No target organs have been determined in humans or animals from Soda ash.

SIGNS AND SYMPTOMS OF EXPOSURE: Symptoms of accidental over-exposure include severe eye irritation, burning sensation to the nose, throat and eyes, redness and irritation of the skin, and coughing or sneezing. Ingestion may cause severe inflammation of the gastrointestinal tract, vomiting, and diarrhea.

See Section 11 for details on Toxicological Data.

4 EMERGENCY & FIRST AID PROCEDURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, call a physician.

SKIN: Wash with soap and water until no evidence of chemical remains (15-20 minutes). Wash clothing before reuse. Thoroughly clean shoes before reuse.

INHALATION: Remove from exposure area to fresh air immediately. Treat

symptomatically and supportively.

INGESTION: If swallowed, do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Call a physician.

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FIRE FIGHTING MEASURES

GENERAL HAZARD: This product is not flammable and does not support combustion

UEL/LEL: Not Applicable

FLASH POINT: Not Applicable

AUTOIGNITION TEMPERATURE: Not Applicable

FLAMMABILITY CLASSIFICATION: Not Applicable

EXTINGUISHING MEDIA: Most fire extinguishing agents may be used in fires involving sodium sulfate.

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ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS OR LEAKS:

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HANDLING & STORAGE

GENERAL: Store in cool, dry area. Keep container tightly closed. Good housekeeping should be maintained to minimize dust accumulation and generation.

HYGIENIC PRACTICES: Wash hands thoroughly with soap and water after handling, and before eating, drinking, or smoking.

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EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use general dilution and local exhaust ventilation techniques to meet nuisance exposure limit (see Section 15).

EYE PROTECTION: Use goggles or vented safety glasses in excessively dusty conditions. Ensure eyewash fountain is located in immediate work area.

SKIN PROTECTION: Not required under normal conditions. Use if

excessively dusty or if skin is damaged. Wear gloves that will not allow alkaline solutions to penetrate.

RESPIRATORY PROTECTION: Use appropriate NIOSH/MSHA certified respirators when levels are expected to exceed exposure limits (see Section 15)

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PHYSICAL & CHEMICAL PROPERTIES

SOLUBILITY IN WATER: 16.3% at 22.6°C

APPEARANCE: White granular solid, odorless

MOLECULAR WEIGHT: 105.99

BOILING POINT: Not Applicable

MELTING POINT: 851 °C

pH VALUE: @ 20°C 1 % solution 11.37

FLASH POINT: Not Applicable

SPECIFIC GRAVITY: 2.533

VAPOR PRESSURE: Not Applicable

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STABILITY & REACTIVITY DATA

STABILITY: Stable under normal conditions. May react violently with strong acids. Carbon dioxide gas and large quantities of heat can be evolved. Reacts with hydrated lime in the presence of moisture to form caustic soda, a corrosive.

INCOMPATIBILITY: Keep away from aluminum powder, fluorine, phosphorous pentoxide, sulfuric acid, ammoniacal silver nitrate and molten lithium.

HAZARDOUS DECOMPOSITION PRODUCTS: Soda Ash decomposes at temperatures above 1000°C, releasing carbon dioxide gas (CO₂). Carbon dioxide is an asphyxiant and may affect respiration rate or interfere with breathing. The sodium oxide residue sublimates at 1275°C, forming vapors and mists of caustic soda on contact with moisture or water

HAZARDOUS POLYMERIZATION: Will not occur.

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TOXICOLOGICAL EFFECTS

EYES: Dry, powdered sodium carbonate, as 25% to 75% of a mixture with dry sodium sulfate, applied to eyes of rabbits and monkeys in a systematic study was judged "corrosive" or "harmful" to both species, whether or not followed by irrigation at two minutes after application. However, most monkey eyes exposed to 50% mixture showed little or no persistent injury 21 days after exposure.

SKIN: An aqueous solution, 50% weight/volume, of sodium carbonate was applied to the intact and abraded skins of rabbits and guinea pigs. The sites were examined at 4, 24, and 48 hours and scored for erythema, edema, or corrosion. The abraded skins of the guinea pigs were negligibly affected, but the rabbit skins showed moderate erythema and edema.

INHALATION: Male rats were exposed to an aerosol of a 2% aqueous solution of sodium carbonate, 4 hours a day, 5 days a week, for 3.5 months.

In observations from exposure at approximately 70 mg/cubic meter, the weight gain of the exposed group was 24% less than that of controls.

Inhalation LC50 in the rat was 2,300 mg/m³/2 hours, mouse - 1,200 mg/m³/2 hours, and guinea pig - 800 mg/m³/2 hours.

INGESTION: Low acute oral toxicity; reported LD₅₀s in rats was 4,090 mg/kg of body weight. Reported LD₅₀ in mice

CARCINOGENICITY: Soda Ash (or any of the components of Soda Ash) is not listed as a carcinogen by the Environmental Protection Agency (EPA), the State of California, or the International Agency for the Research on Cancer (IARC).

REPRODUCTIVE: An intrauterine dose of 0.085 mg/kg given to pregnant mice on day 4 of pregnancy caused preimplantation mortality.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Skin or eye disorders or damaged skin may be aggravated by exposure to this product.

Respiratory disorders may be aggravated by exposure to this product.

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