



SODA ASH

PRODUCT INFORMATION

CHEMICAL NAME: Sodium carbonate, anhydrous.
SYNONYMS: Disodium carbonate, Calcined soda, Soda ash, lite soda ash, dense soda ash, carbonic acid, disodiumsalt
CHEMICAL FAMILY: Carbonate.
MOLECULAR FORMULA: Na₂CO₃
SHIPPING NAME: Sodium carbonate
PIN - (UN/NA): Not controlled. WHMIS: D.2B
PRODUCT USE:
Soda salts, Glass, Soap, Cleaners and water softeners, Pulp and paper, Photographic agent.
MANUFACTURER: OCI Chemical Corp. Two Corporate Drive Shelton, Ct. 06484
SUPPLIER: Panther Industries Inc. Box 628 Davidson, SK S0G 1A0
EMERGENCY TELEPHONE NUMBER: (306) 567-2814

HAZARDOUS INGREDIENTS

INGREDIENTS:	WEIGHT %	C.A.S. REGISTRY NUMBER:
Sodium carbonate	99.8	497-19-8

PHYSICAL DATA

PHYSICAL STATE: Solid. ODOUR AND APPEARANCE: Odourless, white powder.
ODOUR THRESHOLD: Not applicable.
VAPOUR PRESSURE: Not applicable. VAPOUR DENSITY: Not available.
EVAPORATION RATE: Not applicable. pH: 11.3 at 1 wt/wt%
BOILING POINT: Not available. MELTING POINT: 851oC
BULK DENSITY: 48-65 lbs./cu.ft. SPECIFIC GRAVITY: 2.53 @ 20oC
SOLUBILITY IN WATER: 7 Wt/wt% at 25oC MOLECULAR WEIGHT: 105.99
DECOMPOSITION POINT: 400oC begins to evolve CO₂
% VOLATILE BY VOLUME: Not applicable.
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available.

FIRE AND EXPLOSION DATA

CONDITIONS OF FLAMMABILITY: Non-flammable. Avoid extreme heat
MEANS OF EXTINGUISHING: Use extinguishing media appropriate for surrounding fire.
FLASH POINT: Not applicable.
LOWER & UPPER FLAMMABLE LIMIT: Not applicable.
AUTO IGNITION TEMPERATURE: Not applicable.
HAZARDOUS COMBUSTION PRODUCTS: Heating Soda ash liberates CO₂
SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear NIOSH/MSHA approved self contained breathing apparatus and full protective clothing. Dike area to prevent runoff & contamination of water sources. Dispose of fire control water later.
EXPLOSION HAZARDS: None known.

REACTIVITY DATA

STABILITY: Stable. HAZARDOUS POLYMERIZATION: Will not occur.
INCOMPATIBILITY: Contact with acids will release carbon dioxide gas. Can react violently with red hot aluminum metal, Fluorine gas, Lithium, and 2,4,6-trinitrotoluene.



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This material upon contact with certain food products or their residues which contain reducing sugars, may react to form deadly carbon monoxide gas. Proper tank entry and occupancy procedures should be observed. Monitor the tank atmosphere for the presence of carbon monoxide gas.

HAZARDOUS REACTIONS/DECOMPOSITIONS: Heating soda ash liberates CO₂.

CONDITIONS TO AVOID: Simultaneous exposure of Soda ash and Lime dusts(CaO) in the presence of moisture can result in the formation of corrosive Caustic soda which may cause burns. Hygroscopic; protect from moisture. Remixing of separated acid and sodium carbonate solutions could cause CO₂ evolution and severe splattering.

HEALTH HAZARD DATA

INHALATION: Inhalation of product may irritate nose, throat and lungs.

SKIN CONTACT: May cause skin irritation from prolonged contact, especially in hot weather. In acute skin irritation may cause redness & swelling

EYE CONTACT: May irritate or burn eyes.

INGESTION: Ingestion may be harmful. May cause nausea, vomiting, diarrhea, irritation, corrosion

CHRONIC EXPOSURE EFFECTS:

Excessive contact may produce "soda ulcers" on hands and perforation of the nasal septum. Sensitivity reactions may occur from prolonged and repeated exposure.

EXPOSURE LIMITS: Nuisance particulate 10 mg/m³.

IRRITANCY: Mild. MUTAGENICITY: Not a known mutagen.

TERATOGENICITY DATA: Not a known teratogen.

CARCINOGENICITY: Not a known carcinogen.

SENSITIZATION TO PRODUCT: Not available.

REPRODUCTIVE TOXICITY: Not available.

ANIMAL TOXICITY DATA: Oral LD₅₀ (rat): 3160 mg/kg (2), 4090 mg/kg (3)

Inhalation LC₅₀ (rats): 2300 mg/m³/2H (3)

Skin Effects (rabbits): Non-irritant 4 hr. exposure (2)

Mild irritant 24 hr. exposure (3)

Eye Effects (rabbits): Severe irritant (2)

Mild irritant (100 mg with 30 sec rinse) (3)

OTHER HEALTH EFFECTS: None known.

FIRST AID MEASURES

INHALATION: Remove to fresh air & if difficulty breathing administer oxygen if available. If victim is not breathing give artificial respiration. Obtain immediate medical attention.

SKIN CONTACT: Wash area of contact with copious amounts of soap and water. Remove contaminated clothing and wash before reuse. If irritation persists seek medical attention.

EYE CONTACT: Hold eyelids open & flush eyes with running water for minimum of 15 minutes. If irritation persists seek medical attention.

INGESTION: If conscious, give 2 to 3 glasses of water to drink to dilute chemical. Seek immediate medical attention. Do not leave victim alone. DO NOT INDUCE VOMITING. If vomiting occurs spontaneously & victim is conscious give water to further dilute the chemical. If victim unconscious do not give anything by mouth. Lay victim on his side to prevent aspiration of swallowed product.

EFFECTS OF REPEATED OVEREXPOSURE: Repeated exposure may lead to irritation and/or sensitivity of the skin.

OTHER EFFECTS OF OVEREXPOSURE: Concentrated solutions in contact with skin and eyes may cause chemical burns. EXISTING MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE: Skin contact may aggravate existing skin diseases.



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Breathing dust may aggravate acute or chronic asthma and other chronic pulmonary diseases.

NOTES TO PHYSICIANS: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. If burns result from overexposure, treat in the following manner: Ingestion- Treat asphyxia from glottal edema by maintaining an adequate airway. Treat shock. Maintain normal blood pressure by transfusion and by the administration of 5% dextrose in saline. If symptoms are severe and perforation of the stomach or esophagus is suspected, give nothing by mouth until endoscopic examination has been done. Maintain nutrition, give carbohydrate or hyperalimentary fluid intravenously. Give prednisolone, 2 mg/kg/d in divided doses for 10 days, to reduce progression of fibrocystic and hyaline lung disease. Esophageal stricture may require dilation.

PREVENTATIVE MEASURES

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved dust and mist respirator if dust concentration exceeds exposure limit.

SKIN PROTECTION: Wear a long sleeve shirt, trousers, and gloves when handling the product. Wash clothes after working with product.

EYE/FACE PROTECTION: Wear chemical safety goggles or safety glasses. Do not wear contact lenses.

SPECIAL HANDLING PROCEDURES: Wash thoroughly after handling. Do not get in eyes, on skin or on clothing.

STORAGE REQUIREMENTS: Store in a cool, dry, well ventilated area away from acids. Prolonged storage may cause product to cake and become wet from atmospheric moisture.

ENGINEERING CONTROLS: Use local exhaust in areas where dust may be a problem.

SPECIAL SHIPPING REQUIREMENTS: None known.

ENVIRONMENTAL PROTECTION DATA

STEPS IN THE EVENT OF A LEAK OR SPILL: If air born particles exist wear protective clothing to minimize contact and wear an approved respiratory mask if necessary. Sweep and shovel up spilled material and dispose of in DOT approved waste containers. Keep out of sewers, storm drains, surface waters and soil.

DEACTIVATING CHEMICALS: Use an acid to neutralize after the soda ash has been made into a solution.

WASTE DISPOSAL METHODS: If permitted by applicable disposal regulations, bury in a solid waste landfill or dissolve and neutralize as follows: Dissolve in water using caution as solution can get hot. Neutralize with acid and flush to sewer with plenty of water. Use good ventilation due to release of CO₂ gas. Consult federal, provincial and local regulations on chemical waste disposal.

PREPARATION INFORMATION

MSDS PREPARED BY: Technical Department
Panther Industries Inc.

TELEPHONE NUMBER: (306) 567-2814

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REFERENCES:

1. Various Manufacturers MSDS