



MATERIAL SAFETY DATA SHEET

1. COMPANY AND PRODUCT IDENTIFICATION

DUNCAN ENTERPRISES
5673 East Shields Avenue
Fresno, CA 93727
559-291-4444
559-291-9444 (Fax)

EMERGENCY TELEPHONE NUMBERS

Health Emergency: 559-291-4444 7:00 am – 3:30 pm
Pacific Standard Time
Spill and Off-Hour
Health Emergencies: 800-424-9300 U.S. and Canada
703-527-3887 Outside U.S. and
Canada (Collect)

Product Name: RAINBOW ROCK SODA ASH
Synonyms: Sodium Carbonate Anhydrous, Anhydrous Soda Ash,

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>CAS Number</u>
Sodium Carbonate	497-19-8

3. HAZARDS IDENTIFICATION

HMIS Hazard Ratings

Health:	2	0 = Minimal
Flammability:	0	1 = Slight
Reactivity:	0	2 = Moderate
Personal Protection:	See Section 8	3 = Serious
		4 = Severe
		* = Chronic Effects

NFPA Hazard Ratings

Health:	2
Flammability:	0
Reactivity:	0
Special Hazard:	0

Emergency Overview: White granular solid. Product is non-combustible. Reacts with acids to release carbon dioxide and heat. Irritating to the eyes. Continuous contact can irritate skin.

Health Effects: Direct contact with the product causes irritation of the eyes and continuous contact may cause skin irritation (red, dry, cracked skin).

4. FIRST AID MEASURES

Eye Contact: Immediately flush with water for at least 15 minutes, lifting the upper and lower lids occasionally. See a medical doctor immediately.

Skin Contact: Wash with plenty of water for 15 minutes. If irritation occurs and persists, obtain medical attention.

Inhalation: Remove from exposure. If discomfort occurs and persists, obtain medical attention.

Duncan Enterprises Material Safety Data Sheet – Rainbow Rock Soda Ash

4. FIRST AID MEASURES (Continued)

- Ingestion:** Rinse mouth with water. Dilute by giving one or two glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. See a medical doctor immediately.
- Notes 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:** Water, Water Fog, Carbon Dioxide (CO₂), Dry Chemical
- Special Firefighting Procedures:** Wear full protective clothing and self contained breathing apparatus.
- Fire and Explosion Hazard:** Not Applicable
- Hazardous Decomposition Products:** Heated to decomposition, it emits fumes of sodium oxide.

6. ACCIDENTAL RELEASE MEASURES

- Procedure for Release or Spill:** Sweep up and recycle into process if contamination does not present a problem. Use appropriate protective equipment if dust is generated or contact with eyes or skin is expected. Flush residues and liquid to holding area for neutralization before discharge.

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 generated.
- Ventilation:** Provide general mechanical and/or local exhaust ventilation to prevent release of the airborne dust into the work environment. Approved respiratory protection should be used when airborne dust is expected to be released.
- Storage:** Store in a cool dry area, away from acids.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

- Control Measures:** Minimize eye and skin contact by using appropriate protective equipment. Use local or general room ventilation to control airborne dust that may be generated into the work environment.
- Recommended Personal Protective Equipment**
- Respiratory:** Use approved dust respirators for low levels of airborne dust. High concentrations may require air supplied systems.
- Eyes:** Use cup type chemical goggles.
- Special Clothing:** Use arm protectors and aprons. If clothing becomes contaminated remove and launder before reuse.
- Footwear:** Industrial safety shoes

Duncan Enterprises Material Safety Data Sheet – Rainbow Rock Soda Ash

9. PHYSICAL AND CHEMICAL PROPERTIES

Melting/Freezing Point:	851° C
Boiling Point:	Decomposes
Vapor Pressure:	N/A
Vapor Density:	N/A
Appearance and State:	White, solid granular
Odor:	Odorless
Specific Gravity (Water = 1):	2.509
Solubility in Water:	33.2 Maximum
Percent Volatiles:	N/A
Evaporation Rate:	N/A
pH (as is):	N/A
pH (1% Solution):	11.4
Odor Threshold:	N/A
Density (g/ml):	Dense Grades 0.86 – 1.12; Light Grades 0.70 – 0.90
Partition Coefficient:	N/A
Flash Point:	Noncombustible
Autoignition Temperature:	N/A
Flammable Limits Upper:	N/A
Lower:	N/A
Explosive Properties:	N/A
Oxidizing Properties:	N/A
Solubility - Fat Solubility (Solvent – Oil):	Not Available

10. STABILITY AND REACTIVITY

Stability:	Stable
Incompatibilities:	Reacts with acids with release of large volumes of carbon dioxide gas and heat
Hazardous Decomposition Products:	None
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Contact with acids except under controlled conditions
Major Contaminants that Contribute to Instability:	None
Sensitivity to Mechanical Impact:	None
Sensitivity to Static Discharge:	None

11. TOXICOLOGICAL INFORMATION

Eye Contact:	Severe irritant (rabbit) Toxicology 23:281 – 291 (1982)
Skin Contact:	Non-irritating to intact skin. Minor irritation may occur on abraded skin. Non-sensitizing (humans, 0.25% sodium carbonate) Toxicology and Applied Pharmacology 31:481-190 (1975)
Skin Absorption:	No Data Available
Inhalation:	LC50 = 2.3 mg/l (rat, 2 hr.) Environ Res 31:138 (1983)

Duncan Enterprises Material Safety Data Sheet – Rainbow Rock Soda Ash

11. TOXICOLOGICAL INFORMATION (Continued)

Acute Effects from Overexposure: May cause severe irritation of the eyes, including corneal opacities. Dust mists are irritating to the skin, mucous membranes and upper respiratory tract.

Chronic* Effects from Overexposure: May cause inflammation of the mucous membranes in the respiratory tract and of the skin.

* Effects considered include: sensitivities, carcinogenicity, teratogenicity, mutagenicity, synergistic products, and any medical conditions generally recognized as being aggravated by exposure.

12. ECOLOGICAL INFORMATION

Environmental Fate: Biodegradability does not apply to inorganic substances. No other data available.

Environmental Effects: 96 Hr LC50 (Daphnia Magna) = 265 – 565 mg/l
96 Hr LC50 (Bluegill Sunfish) = 300 – 320 mg/l

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Salvage as much material as possible and return to process if contamination does not present a problem. Dispose in an approved landfill in accordance with accepted governmental regulations.

14. TRANSPORT INFORMATION

DOT Proper Shipping Name: Sodium Carbonate

IATA: N/A

IMDG: N/A

DOT Classification: Nonhazardous

DOT Labels: N/A

DOT Marking : N/A

DOT Placard: N/A

U.N. Number: N/A

Hazardous Substance / RQ: N/A

49 STCC Number: N/A

Precautions to be Taken in Transportation: Sweep up, return to container and mark as waste for disposal

Other Shipping Information: Sodium Carbonate is generally regarded as safe (GRAS) when used with current good manufacturing practices.

15. REGULATORY INFORMATION

Label Language (U.S. and Canada)

Health: Dust may cause severe irritation of eyes and slight irritation of nose and throat. Repeated contact may cause redness and dry, cracked skin.

Physical: Not Applicable

Handling and Storage: Do not store close to acids. Wear eye protection and approved dust respirator when excessive dust is present.

First Aid: In case of contact, immediately flush eyes with water for at least 15 minutes. If irritation persists, obtain medical attention. Flush skin with water.

Duncan Enterprises Material Safety Data Sheet – Rainbow Rock Soda Ash

15. REGULATORY INFORMATION (Continued)

State Regulations:

California Proposition 65: Safe Water and Toxic Enforcement Act of 1986; The following Chemicals have been detected:

Arsenic, as As₂O₃: 0.03 ppm
 Chromium: 0.03 ppm
 Lead: < 1 ppm
 Cadmium: < 0.1 ppm

All other listed chemicals are not detected or not suspected to be present.

<p>OSHA Exposure Limits Substance : Sodium Carbonate OSHA PEL – TWA : N/A STEL: N/A Ceiling: N/A Skin Designation: N/A ACGIH TLV-TWA: N/A STEL: N/A Ceiling: N/A Skin Designation: N/A Target Organ Effects: Eye Carcinogenic Potential No Regulated by OSHA: No Listed on NTP Report: No IARC Group 1, 2A, 2B: No U.S. EPA Requirements Release Reporting CERCLA (40 CFR 302) Listed Substance: Not Listed RQ: N/A Category: N/A RCRA Waste Number: N/A Unlisted Substance: N/A RQ: N/A Category: N/A RCRA Waste Number: N/A SARA Title III Section 313 (40 CFR 372) Listed Toxic Chemical: Not Listed</p>	<p>Inventory Reporting SARA Title III Section 311/312 (40 CFR 370) Substance: Sodium Carbonate Hazard Category: Immediate (Acute) Health Hazard (Irritant) 10,000 Pounds Planning Threshold: Emergency Planning SARA Title III Section 302/303 (40 CFR 355) Listed Substance: N/A RQ: N/A Planning Threshold: U.S. TSCA Status: Listed Canada Ingredient Disclosure List Substance: Sodium Carbonate Yes Controlled Product: Toxic Hazard Symbols: Class D, Division 2, Subdivision B Class & Division: Subdivision B Product Identification Number: N/A Domestic Substance List: Listed Not Listed CEPA Priority List: Carcinogenicity Not Listed ACGIH Appendix A: A1: Confirmed Human: Not Listed A1: Suspected Human: Not Listed No IARC Group 1 or 2:</p>
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16. OTHER INFORMATION

Table of Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
ANSI	American National Standards Institute
ASTM	American Society for Testing Materials
°C	Degrees Centigrade
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CPR	Controlled Products Regulations
DOT	Department of Transportation
EPA	Environmental Protection Agency
°F	Degrees Fahrenheit
FDA	Food & Drug Administration
Hg	Mercury
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
LD	Lethal Dose
mg / kg	Milligram per kilogram
mm	Millimeter
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration
N / A	Not Applicable
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
ppm	Parts per million
SARA	Superfund Amendment and Reauthorization Act
STEL	Short-Term Exposure Limit
TSCA	Toxic Substances Control Act
TWA	Time - Weighted Average
U.N.	United Nations
WHMIS	Workplace Hazardous Materials Information System
>	Greater Than
<	Less Than

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Disclaimer

The information given and the recommendations made herein apply to our product(s) alone and not combined with any other product(s). Such are based on our research and on data from other reliable sources and are believed to be accurate. No guarantee of accuracy is made. It is the purchaser's responsibility before using any product to verify this data under their own operating conditions and to determine whether the product is suitable for their purposes.