MATERIAL SAFETY DATA SHEET
IDENTITY- STANDARD DRY CHEMICAL

SECTION I. Chemical Product and Company Identification

Product Name: Standard Dry Chemical Fire Extinguishant
Synonym: Sodium Bicarbonate, STD
Manufacturer: Buckeye Fire Equipment Company
110 Kings Road
Kings Mountain, NC 28086
Telephone: 704.739.7415
Emergency: CHEMTREC 1.800.424.9300

Revision Date: 7/10

SECTION II. Hazard Identification and Emergency Overview

Emergency Overview: Product is a white, fine solid powder that is odorless.

Adverse Health Effects and Symptoms: Product is a mild irritant to the respiratory system and eyes. Symptoms may include shortness of breath, coughing, and irritation to the eyes, lungs, and skin. Ingestion may cause gastric irritation and fluid retention (edema).

Exposure Guidelines:

	OSHA PEL	ACGIH TLV
Sodium Bicarbonate	Particulates Not Otherwise Classified Total Dust- 15 mg/m³ Respirable Fraction- 5 mg/m³	Particulates Not Otherwise Classified Total Dust- 10 mg/m³ Respirable Fraction- 3 mg/m³
Silica	6 mg/m³	10 mg/m³
Stannous ocetate	.1 mg/m³	.1 mg/m³
Silicone	Not Regulated	Not Regulated

Hazard Symbols:

HMIS RATINGS:

Health 1
Flammability 0
Reactivity 0
Personal Protective Equipment: use N-95 dust mask (See Section 8)

WHMIS (Canadian Workplace Hazardous Materials Identification)
None

SECTION III. Composition/Information on Ingredients

	Weight %*	CAS #
Sodium Bicarbonate	97	144-55-8
Silica	< 3	7631-86-9
Stannous ocetate	< 1	301-10-0
Silicone (Methylhydrogen siloxane)	< .1	63148-57-2

* % is rounded to the nearest appropriate number. Values are not to be considered product specifications

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SECTION IV. First Aid Measures

Eye Exposure- Flush eyes with water until pain-free. If irritation develops or persists, seek medical attention.

Skin Exposure- Wash with plenty of soap and water. If irritation develops or persists, seek medical attention.

Inhalation- Move victim to fresh air. If irritation develops or persists, seek medical attention.

Ingestion- If victim is conscious and alert, give 2-3 glasses of water to drink. Do not induce vomiting. If vomiting occurs and the victim is conscious, give additional water to further dilute the chemical. Prevent aspiration of swallowed product by laying victim on side with head lower than their waist. Seek medical attention. Do not leave victim unattended.

Medical Conditions Possibly Aggravated by Exposure- Inhalation of the product may aggravate existing chronic respiratory conditions such as asthma, emphysema, or bronchitis. Contact with the skin may aggravate an existing skin disease. Chronic overexposure may cause pneumoconiosis ("Dusty Lung" disease).

SECTION V. Firefighting Measures

Extinguishing Media: N/A. This product is an extinguishing agent. It is nonflammable and noncombustible.
Special Firefighting Procedures: N/A
Unusual Fire and Explosion Hazards: This product may decompose in fire and release carbon monoxide and carbon dioxide (Refer to Section X).
Sensitivity to Mechanical Impact or Static Discharge: None

SECTION VI. Accidental Release Measures

In case of accidental release, use the appropriate respiratory protection. Clean up the product using a vacuum or wet sweep and shovel to minimize the generation of dust. Bag or drum the product for disposal. If the product is used and/or contaminated, use personal protective equipment and containment means that are appropriate for the composition of the mixture. Product should be prevented from entering waterways.

SECTION VII. Handling and Storage

Avoid eye, respiratory, and skin exposure. Use the appropriate personal protective equipment when handling. Wash thoroughly after handling (Refer to Section VIII). Product should be stored in its original container or extinguisher. When the product is contained under pressure (e.g., an extinguisher), inspect the container for rust or damage that may compromise the container integrity. Do not store the product in high humidity and do not mix with other extinguishing agents.

SECTION VIII. Exposure Controls and Personal Protection

During the use of this product on fires, exhaust gases and products of incomplete combustion are the main respiratory hazards. In the manufacture of this product, employers and employees must use their collective judgment in determining the on-the-job settings where the use of a dust mask or respirator is prudent. The need for respiratory protection is not likely for short-term use in well-ventilated areas.

Respiratory Protection: Use an N-95 dust mask for limited exposures and use air-purifying respirators with high efficiency particulate air filters (HEPA filters) for prolonged exposures.

Eye Protection: Wear chemical goggles or full-face air-purifying respirator.

Skin Protection: Use nitrile, latex, or similar gloves and coveralls to minimize exposure. Good personal hygiene practices are essential. After handling the product, avoid food, tobacco products, or other means of transferring the product from hand to mouth until after thoroughly washing.

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SECTION IX. Physical and Chemical Properties

Appearance and Odor: White fine powder that is odorless.
Apparent Density: 0.90
Solubility: The product is coated with water repellant silicone. Not immediately soluble in water.
pH: Approximately 8 - 9 for a 1% solution
Flash Point: N/A
Flammability: N/A
Vapor Pressure: N/A
Boiling Point: N/A
Explosive or Oxidizing Properties: None

SECTION X. Stability and Reactivity

Stability: Stable
Incompatibles: Reacts with strong acids to form carbon dioxide, creating a possible asphyxiation hazard. Hazardous reaction may occur from contact with monoammonium phosphate or sodium potassium.
Decomposition Products: This product may decompose in fire and release carbon monoxide and carbon dioxide.
Hazardous Polymerization: Will not occur
Hazardous Reactions: None

SECTION XI. Toxicological Information

Acute Toxicity: Sodium bicarbonate LD50 (rat): 4220 mg/kg body weight.
TDLo (infant): 1260 mg/kg body weight, symptoms including pulmonary and kidney damage.
Target organs in humans: respiratory system and eyes. The product is a mild irritant to eyes and respiratory system. No indication that the product causes sensitization.

Chronic Toxicity: Pneumoconiosis, or "Dusty Lung" disease, may result from chronic exposure to any dust.

Reproductive Toxicity: The reproductive system was not found to be a target organ in humans.
Intraperitoneal TDLo (mouse): 40mg/kg body weight, teratogen

SECTION XII. Ecological Information

Ecotoxicity: No known negative effects.
Degradability: Degrades rapidly in wet or humid environment.
Bioaccumulation: Little, extent unknown.
Mobility in Soil: Water-soluble. May leech in to groundwater.

SECTION XIII. Considerations for Disposal

This product is not a RCRA characteristically hazardous or listed hazardous waste. Dispose of according to state or local laws, which may be more restrictive than federal regulations. Be aware that product used on a fire may be altered or contaminated and thereby require different disposal considerations.

SECTION XIV. Transportation Information

This product is not defined as a hazardous material under U.S. Department of Transportation 49 CFR 172, or by Transport Canada "Transportation of Dangerous Goods" regulations.

Please Note: Although this material is not considered hazardous, when contained in a stored pressure fire extinguisher pressurized with a nonflammable gas, the extinguisher itself is considered hazardous material by the U.S. Department of Transportation (USDOT) and Transport Canada (TC). Packaging of the fire extinguisher shall be identified with the Proper Shipping Name (Fire Extinguisher) and the UN Identification Number (UN 1044). The USDOT hazard class/division is 2.2 Nonflammable Gas. Packing Group = N/A

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SECTION XV. Regulatory Information

International Inventory Status: Sodium bicarbonate is on the following inventories

Country	Agency
U.S.A.	TSCA
Canada	DSL
Europe	EINECS/ELINCS
Australia	AICS
Japan	MITI
South Korea	KECL

European Risk and Safety Phrases:

EU Classification- Harmful

R Phrases-	22	Harmful if swallowed
	36/37	Irritating to eyes and respiratory system
S Phrases-	26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

U.S. Federal Regulatory Information:

None of the chemicals in this product are under SARA reporting requirements or have SARA Threshold Planning Quantities or CERCLA Reportable Quantities, or are regulated under TSCA 8(d).

State Regulatory Information:

Chemicals in this product are covered under the specific State regulations noted:

Alaska	Designated Toxic and Hazardous Substances- None
California	Permissible Exposure Limits for Chemical Contaminants- None
Florida	Substance list- Mica dust
Illinois	Toxic Substance List- None
Kansas	Section 302/303 List- None
Massachusetts	Substance list- Mica dust
Minnesota	List of Hazardous Substances- None
Missouri	Employer Information/Toxic Substance List- None
New Jersey	Right to Know Hazardous Substance List- None
North Dakota	List of Hazardous Chemicals, Reportable Quantities- None
Pennsylvania	Hazardous Substance List- None
Rhode Island	Hazardous Substance List- Mica dust
Texas	Hazardous Substance List- No
West Virginia	Hazardous Substance List- None
Wisconsin	Toxic and Hazardous Substances- None

California Proposition 65- No component is listed on the California Proposition 65 List

SECTION XVI. Other Information

This MSDS conforms to the requirements under U.S., U.K., Canadian, Australian, and EU Regulations or Standards. It conforms to the proposed 2003 ANSI Z400.1 format.

The information contained herein is given in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made.