

**SAFETY DATA SHEET
PURPLE K DRY CHEMICAL**

SECTION I. Chemical Product and Company Identification

Product Name: Purple K Dry Chemical Fire Extinguishant
(Fire Extinguishing Agent, Non-pressurized and Pressurized)
Synonym: Potassium Bicarbonate, PK
Manufacturer: Shield Fire Protection
PO Box 428
Kings Mountain, NC 28086
Telephone: 704.739.7415
Web Address: www.shieldprotects.com
Email Address: info@shieldprotects.com
Recommended Use: Fire suppression, not for human or animal drug use.
Emergency: CHEMTREC 1.800.424.9300
Revision Date: 04/2019

SECTION II. Hazard Identification and Emergency Overview

Note: This SDS covers both pressurized and non-pressurized containers of the product.

GHS – Classification (Pressurized):

Hazard Classification: Gas Under Pressure-Compressed Gas

GHS Label Elements:



Hazard Symbols:

Signal Word: WARNING

Hazard Statements: Contents Under Pressure: may explode if heated

Precautionary Statements: P251 Pressurized container; do not pierce or burn, even after use.

GHS – Classification (Non-pressurized):

Eye Irritation: Class 2B
Skin Irritation: Class 3
Inhalation: Class 5

GHS Label Elements:



Hazard Symbols:

Signal Word: WARNING

Hazard Statements:

H313 May be harmful in contact with skin.
H320 Causes eye irritation
H333 May be harmful if inhaled.

Precautionary Statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P234 Keep in original container.
P251 Pressurized container; do not pierce or burn, even after use
P261 Avoid breathing dust
P264 Wash hands and face thoroughly after handling
P270 Do not eat, drink, or smoke when using this product
P281 Use personal protective equipment as required

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P285	In case of inadequate ventilation, wear respiratory protection
P301+322	If swallowed, drink 2-3 glasses of water.
P302+352	If on skin, wash with soap and water
P304+313+341	If inhaled, and if distress occurs, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice/attention.
P305+351+338	If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do, and continue to rinse.
P337+313	If eye irritation persists, get medical advice/attention.
P401+402+403	Store in original container in a dry, well ventilated place.

SECTION III. Composition/Information on Ingredients

This product is a mixture.

Chemical Name	Weight %*	CAS #
Potassium Bicarbonate (Potassium Hydrogen Carbonate)	93	298-14-6
Barium Sulfate	1.5	7727-43-7
Mica (Potassium Aluminum Silicate)	4	12001-26-2
Silicone (Methylhydrogen siloxane)	0.5	63148-57-2
Pigment	< 0.1	6358-30-1
Note: Pressurized product uses nitrogen as the expellant		7727-37-9

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

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 and induce vomiting. 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 oxides of carbon, potassium, and nitrogen (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.

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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, particularly ammonium phosphate based agents.

SECTION VIII. Exposure Controls and Personal Protection

Exposure Guidelines:

	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Potassium Bicarbonate	Particulates Not Otherwise Classified Total Dust- 15 mg/m ³ Respirable Fraction- 5 mg/m ³	Particulates Not Otherwise Classified Total Dust- 10 mg/m ³ Respirable Fraction- 3 mg/m ³
Barium Sulfate	Particulates Not Otherwise Classified Total Dust- 15 mg/m ³ Respirable Fraction- 5 mg/m ³	Particulates Not Otherwise Classified Total Dust- 10 mg/m ³ Respirable Fraction- 3 mg/m ³
Mica	6 mg/m ³	3 mg/m ³
Silicone	Not Regulated	Not Regulated
Pigment	Not Regulated	Not Regulated

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. 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.

SECTION IX. Physical and Chemical Properties

Chemical Agent

Appearance and Odor: Light purple fine powder that is odorless.

Apparent Density: 0.88

Solubility: The product is coated with water repellent silicone. Not immediately soluble in water.

pH: Approximately 9-10 for a 10% solution

Flash Point: N/A

Flammability: N/A

Vapor Pressure: N/A

Boiling Point: N/A

Explosive or Oxidizing Properties: None

Expellant- Nitrogen

Appearance and Odor: Colorless and odorless.

Specific Gravity: 0.075 lb/ft³@ 70°F as vapor

Solubility: N/A

pH: N/A

Flash Point: Nonflammable

Flammability: Nonflammable

Vapor Pressure: N/A

Boiling Point: -321°F

Explosive or Oxidizing Properties: None

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SECTION X. Stability and Reactivity

Reactivity: Pressurized containers may rupture or explode if exposed to high heat

Stability: Stable

Incompatibles: Ammonium phosphate, lithium, and strong acids

Decomposition Products: This product may decompose in fire and release carbon monoxide, carbon dioxide, and oxides of potassium and nitrogen.

Hazardous Polymerization: Will not occur

Hazardous Reactions: None

SECTION XI. Toxicological Information

Acute Toxicity: Potassium bicarbonate LD50 (rat): Not Known. Testing has not been conducted. This product is relatively non-toxic.

Target organs in humans: respiratory system. The product is a mild irritant to eyes, mucous membranes, and skin. It may aggravate dermatitis. No indication that the product causes sensitization.

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

Reproductive Toxicity: This product is not known to have any reproductive effects.

Nitrogen: Simple asphyxiant. Exposure at high concentrations can cause suffocation by reducing the available oxygen.

SECTION XII. Ecological Information

Ecotoxicity: Negative effects are unknown. Provides nutrient phosphorus to plant life.

Degradability: Degrades rapidly in wet or humid environment.

Bioaccumulation: Unknown extent.

Mobility in Soil: Water-soluble. May leech in to groundwater.

SECTION XIII. Disposal Considerations

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 a hazardous material by the U.S. Department of Transportation (USDOT) and Transport Canada (TC). The proper shipping name shall be Fire Extinguisher and the UN Identification Number is UN 1044. The USDOT hazard class is Limited Quantity when pressurized to less than 241 psig and when shipped via highway or rail. For shipment by Air or Water consult the current IATA or IMDG Regulations respectively.

SECTION XV. Regulatory Information

International Inventory Status: All ingredients are on the following inventories

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

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European Risk and Safety Phrases:

EU Classification-	Irritant	
R Phrases-	20	Harmful by inhalation
	36/37	Irritating to eyes and respiratory system
S Phrases-	22	Do not breathe dust
	24/25	Avoid contact with skin and eyes
	26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
	36	Wear suitable protective clothing

U.S. Federal Regulatory Information:

Non-pressurized; 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).
Pressurized: SARA Title III Section 311/312 Categorization is Pressure Hazard

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	Pennsylvania	Hazardous Substance List- None
Illinois	Toxic Substance List- None	Rhode Island	Hazardous Substance List- Mica dust
Kansas	Section 302/303 List- None	Texas	Hazardous Substance List- No
Massachusetts	Substance list- Mica dust	West Virginia	Hazardous Substance List- None
Minnesota	List of Hazardous Substances- None	Wisconsin	Toxic and 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		

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

SECTION XVI. Other Information

This Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

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)

D2B- May irritate eyes, mucous membranes, and/or skin

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.