



Pyrodex® Propellants
MATERIAL SAFETY DATA SHEET
April 2009

The following Muzzleloading Propellants
are manufactured and distributed by Hodgdon Powder Company.

Granular

Pyrodex® RS
Pyrodex® P
Pyrodex® Select

Pellets

Pyrodex® BP5030
Pyrodex® BP5050
Pyrodex® P5030
Pyrodex® P5050
Pyrodex® P5460
Pyrodex® RP4430

Pyrodex®

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (as Used on Label and List)
Pyrodex®, a pyrotechnic mixture

Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's name HODGDON POWDER COMPANY, INC	Emergency Telephone Number Chem-Tel (800) 255-3924
Address (Number, Street, City, State and ZIP Code) 6231 Robinson	Telephone Number for Information (913) 362-9455
Shawnee Mission, KS 66202, USA	Date Prepared 03/16/2009
	Signature of Preparer (optional) Mark Wendt

Section II—Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity, Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Charcoal	N/A	N/A		
Sulfur	N/A	N/A		
Potassium Nitrate	N/A	N/A		
Potassium Perchlorate	N/A	N/A		
Graphite		2.5 mg/m ³	Respirable Dust	

Other: Other ingredients are trade secrets, but can be disclosed per 29CFR 1910.1200(l)

Section III—Physical/Chemical Characteristics

Boiling Point	N/A	Specific Gravity (H ₂ O = 1)	Bulk density is 0.75 (g/cc)
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water	Partially		
Appearance and Odor	Medium to dark gray granular solid. Slight odor when ignited.		

Section IV—Fire and Explosion Hazard Data

Flash Point (Method Used) 500°F	Auto-Ignition temperature: 740°F [pellets:	Flammable Limits N/A	LEL N/A	UEL N/A
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Extinguishing Media For unattended fire prevention, water can be used to disburse burning Pyrodex®. Pyrodex® has its own oxygen supply; flame smothering techniques are ineffective. Water may be used on unburnt Pyrodex® to retard further spread of fire.

Special Fire Fighting Procedures Pyrodex® is extremely flammable and may deflagrate. Get away and evacuate the area.

Unusual Fire and Explosion Hazards As with any pyrotechnic, if under confinement or piled in moderate quantities, Pyrodex® can explode. Toxic fumes such as sulfur dioxide are emitted while burning.

(Reproduce locally)

OSHA 174 Sept. 1985

Section V—Reactivity Data

Stability	Unstable		Conditions to Avoid Avoid storage at temperatures above 150°F, impact, hot embers, sparks, and static discharges.
	Stable	XX	
Incompatibility (Materials to Avoid) Metal powders and acids.			
Hazardous Decomposition or Byproducts CO, CO ² , SO ² , non-metallic oxides and suspended particulate matter from burning.			
Hazardous Polymerization	May Occur		Conditions to Avoid Not known to occur.
	Will Not Occur	XX	

Section VI—Health Hazard Data

Route(s) of Entry	Inhalation? Yes	Skin? Yes	Ingestion? Yes
Health Hazards (Acute and Chronic) TLV unknown for ingestion of dust. Acute oral LD ⁵⁰ in rats is calculated to be 4.0 [g/kg body weight]			
Carcinogenicity	NO	NTP? NO	IARC Monographs? NO
OSHA Regulated? NO			
Signs and Symptoms of Exposure Burning or itching of the eyes, nose or skin; shortness of breath			
Medical Conditions Generally Aggravated by Exposure Some people may be unusually sensitive to the product.			
Emergency and First Aid Procedures Remove the patient from exposure, and if skin contact, wash the affected area with copious amounts of water.			

Section VII—Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled	Do not smoke in the area. Powder should be scooped or swept up using non-sparking, conductive tools. This should be done in a manner so that no dusting occurs.
Waste Disposal Method	Wet thoroughly with water to dissolve the powder. Comply with all federal, state, and local laws.
Precautions to Be Taken in Handling and Storing	Pyrodax® is a solid propellant which is designed to propel a mass, or in some cases, break open a container. Thus appropriate care should be taken to avoid heavy confinement and ignition sources such as, but not limited to heat, static discharge, embers, friction and impact.
Other Precautions	In the area of use, avoid all possible sources of ignition and use explosion proof electrical equipment suitable for use with explosives dusts. Do not drop containers of powder. Store at temperatures of less than 150°F in approved magazines.

Section VIII—Control Measures

Respiratory Protection (Specify Type) Disposable NIOSH approved dust masks may be used, if desired.			
Ventilation	Local Exhaust	If used, should be equipped with well maintained, continuously active water washing system.	Special N/A
	Mechanical (General)	Use NEMA Class II, Division 1, Groups F&G motors or better.	Other N/A
Protective Gloves	May be used if sensitivity of skin occurs. Wash daily	Eye Protection	Use Goggles if sensitivity occurs.
Other Protective Clothing or Equipment "100%" cotton clothing and grounded work station are recommended to minimize static electricity.			
Work/Hygienic Practices Work with small quantities, keeping main supply in the closed container. Shower after exposure and wash clothing daily.			