

Blue MZ™ Pellets

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Revision Date: 08/11/2015

Date of issue: 08/11/2015



Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Blue MZ

Intended Use of the Product

Propellant for muzzleloading firearms

Name, Address, and Telephone of the Responsible Party

Company

Alliant Powder

Federal Cartridge Company

900 Ehlen Drive

Anoka, MN 55303

T 1-800-635-7656

Emergency Telephone Number

Emergency Number : 1-800-424-9300 (Inside US), 01-703-527-3887 (Outside US) - (CHEMTREC, Day or Night)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Expl. 1.3 H203

Skin Irrit. 2 H315

Eye irrit. 2A H319

STOT SE 3 H335

Acute Tox. 4 (Oral) H302

Comb. Dust

Full text of H-phrases: see section 16

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H203 - Explosive; fire, blast or projection hazard.

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

May form combustible dust concentrations in air.

Precautionary Statements (GHS-US)

: P210 - Keep away from heat/sparks/open flames – No Smoking.

P250 - Do not subject to friction, grinding, shock.

P260 - Do not breathe dust, fume.

P262 - Do not get in eyes, on skin, or on clothing.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, and eye protection.

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P284 - In case of inadequate ventilation wear respiratory protection.
P301+P310 - IF SWALLOWED: Immediately call a poison center or doctor.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 - Get medical advice/attention if you feel unwell.
P330 - Rinse mouth.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P380 - In case of fire: Evacuate area.
P372 - Explosion risk in case of fire.
P373 - DO NOT fight fire when fire reaches explosives.
P391 - Collect spillage.
P401 - Store as defined in the Explosives Act of Canada and the provisions of the Bureau of Alcohol, Tobacco and Firearms regulations contained in 27 CFR part 555.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container as defined in the Explosives Act of Canada and the provisions of the Bureau of Alcohol, Tobacco and Firearms regulations contained in 27 CFR part 555.

Other Hazards

Accidental firing or explosion is likely to cause severe injury or death.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Sodium Benzoate	(CAS No) 532-32-1	20	Eye Irrit. 2A H319
Dextrin	(CAS No) 9004-53-9	5	Comb. Dust
Potassium Nitrate	(CAS No) 7757-79-1	50	Ox. Sol. 3 H272 Skin Irrit. 2 H315 Eye Irrit. 2A H319 STOT SE 3 H335
Potassium Perchlorate	(CAS No) 7778-74-7	25	Ox. Sol. 1 H271 Acute Tox. (Oral) 4 H302

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water or soap and water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Harmful if swallowed, in contact with skin or if inhaled.

Inhalation: May cause respiratory irritation including shortness of breath.

Skin Contact: Symptoms may include: Redness, itching, dryness, and dermatitis.

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Eye Contact: May cause eye irritation. Symptoms may include: burning, itching.

Ingestion: May cause vomiting.

Chronic Symptoms: None available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: DO NOT FIGHT FIRES INVOLVING EXPLOSIVES. Water may be applied through fixed extinguishing system (sprinklers) as long as people need not be present for the system to operate.

Unsuitable Extinguishing Media: DO NOT fight fires involving explosives.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: In case of fire involving explosives: Evacuate area. DO NOT fight fires involving explosives. Consult the most current Emergency Response Guidebook (ERG), Guide 112 for additional information.

Explosion Hazard: Explosives, Division 1.3 - Chemicals and items which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard. Extreme risk of explosion from shock, friction, fire or other sources of ignition. Substance may explode when in contact with flammable or organic substances and confined during a fire.

Reactivity: Reacts violently with many chemicals causing fire and explosion hazard. Material is sensitive to friction, shock, impact, and electrostatic discharge.

Advice for Firefighters

Precautionary Measures Fire: This product is an explosive with a fire, projection, or blast hazard. DO NOT FIGHT FIRES INVOLVING EXPLOSIVE MATERIALS.

Firefighting Instructions: DO NOT ATTEMPT TO FIGHT FIRE. Immediately evacuate all personnel from the area to a safe distance. Guard against re-entry. Thermal decomposition can lead to release of irritating gases and vapors.

Protection During Firefighting: When controlling fire before involvement of explosives, fire-fighters should wear positive pressure self-containing breathing apparatus (SCBA) and full turnout gear.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Metal oxides.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe dust or fumes. Keep away from heat, sparks, open flames, hot surfaces – No smoking. Eliminate every possible source of ignition. Evacuate danger area.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate danger area.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental Precautions

Prevent entry to sewers and public waters. Hazardous waste due to potential risk of explosion.

Methods and Material for Containment and Cleaning Up

For Containment: Absorb and/or contain spill with inert material, then place in suitable container.

Methods for Cleaning Up: Follow local, state and federal regulations. Clean up spills immediately using a soft bristle brush and a rubber or plastic pan or shovel. Avoid pinching material, metal to metal contact, impact with sharp objects, friction or other situations which may initiate the explosive. Avoid sand, glass, grit, and metal fragments which may sensitize the material to impact and/or friction.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

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SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: Must not be confined if burning. Confinement can cause deflagration or transition to detonation with extremely violent results. Explosives may be retained in fissures, cracks, and crevices of structures, equipment and containers which have been exposed to explosives. Property which may be contaminated by explosives must not be subjected to heat, sparks, or flame. Detonation can occur.

Hygiene Measures: This product is an explosive and should only be used under the supervision of trained and licensed personnel. Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Store as defined in the provisions of the Bureau of Alcohol, Tobacco and Firearms regulations contained in 27 CFR Part 555.

Storage Conditions: Store under moderate temperatures recommended by a technical services representative. Store under dry conditions in a well-ventilated magazine that has been approved for either detonator storage or explosive storage. Do NOT store explosives in a detonator magazine or detonators in an explosive magazine. Keep away from heat, spark and flames. Keep containers closed. Explosives should be kept well away from initiating explosives; protected from physical damage; separated from oxidizing materials, combustibles, and sources of heat. Isolate from incompatibles.

Incompatible Materials: Heat sources. Direct sunlight and ultraviolet light. Strong acids, strong bases, strong oxidizers.

Special Rules on Packaging: Keep only in the original container.

Specific End Use(s)

Smokeless powder for small arms.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

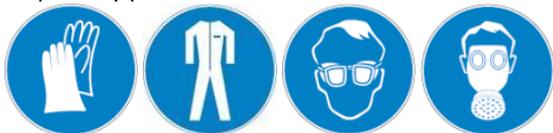
Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government

Exposure Controls

Appropriate Engineering Controls: Proper grounding procedures to avoid static electricity should be followed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Product to be handled in a closed system and under strictly controlled conditions. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Flame retardant protective clothing. Safety glasses. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: For explosive-handling workers, flame retardant caps and coveralls for full body (arms and legs) protection are recommended. Cotton coveralls, underwear, socks and conductive shoes are recommended to avoid human static discharge.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing. Wear long sleeves.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements and NIOSH standards. For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Environmental Exposure Controls: Do not allow the product to be released into the environment.

Consumer Exposure Controls: Do not eat, drink or smoke during use

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Blue granular pellets
Odor	: Not available
Odor Threshold	: Not available
pH	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Not available
Auto-ignition Temperature	: 750 °F
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Negligible at 20 °C (68 °F)
Relative Vapor Density at 20 °C	: Not available
Specific Gravity	: 1.5 (approximate)
Solubility	: Negligible at 20 °C (68 °F)
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available
Explosive Properties	: Explosives, Division 1.3 - Chemicals and items which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard
Explosion Data – Sensitivity to Mechanical Impact	: Sensitive to mechanical impact
Explosion Data – Sensitivity to Static Discharge	: Static discharge could act as an ignition source.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Reacts violently with many chemicals causing fire and explosion hazard. Material is sensitive to friction, shock, impact, and electrostatic discharge.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Avoid shock, heat, electrostatic discharge, impact, impingement, and friction. High explosive will detonate when exposed to sufficient energy level.

Incompatible Materials: Heat sources. Direct sunlight and ultraviolet light. Strong acids, strong bases, strong oxidizers.

Hazardous Decomposition Products: Thermal decomposition generates: Carbon oxides (CO, CO₂). Nitrogen oxides. Metal oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity:

LD50 and LC50 Data:

Blue MZ	
ATE US (oral)	4000 mg/kg (rat)

Skin Corrosion/Irritation: Skin irritant

Serious Eye Damage/Irritation: Eye irritant

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Not classified

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Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation and shortness of breath.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation and shortness of breath.

Symptoms/Injuries After Skin Contact: Symptoms may include: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: May cause eye irritation.

Symptoms/Injuries After Ingestion: Vomiting

Chronic Symptoms: Not classified

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Not available

Persistence and Degradability Not available

Bioaccumulative Potential Not available

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Hazardous waste due to potential risk of explosion. Dispose of waste material in accordance with all local, regional, national, and international regulations.

Waste Disposal Recommendations: Destroy and dispose of in accordance with applicable local, state, provincial, territorial, federal and international regulations. Comply with regulations as defined in the Explosives Act of Canada and the provisions of the Bureau of Alcohol, Tobacco and Firearms regulations contained in 27 CFR part 555.

SECTION 14: TRANSPORT INFORMATION

In Accordance with DOT (<100lbs)

Proper Shipping Name : SMOKELESS POWDER FOR SMALL ARMS(100 pounds or less)

Hazard Class : 4.1

Identification Number : NA3178

Label Codes : 4.1

Packing Group : I

Marine Pollutant :

ERG Number : 134



In Accordance with DOT

Proper Shipping Name : PROPELLANT, SOLID

Hazard Class : 1.3C

Identification Number : UN0499

Label Codes : 1.3C

Packing Group : II

Marine Pollutant :

ERG Number : 112



In Accordance with IMDG

Proper Shipping Name : Propellant, solid

Hazard Class : 1

Identification Number : UN0499

Label Codes : 1.3C

EmS-No. (Fire) : Check w/ carrier

EmS-No. (Spillage) : Check w/ carrier



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Marine pollutant : Marine pollutant

In Accordance with IATA

Proper Shipping Name : Forbidden.

Identification Number :

Hazard Class :

Label Codes :

ERG Code (IATA) :

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Blue MZ	
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Sudden release of pressure hazard
Sodium Benzoate (532-32-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Dextrin (9004-53-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Potassium Nitrate (7757-79-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 313 - Emission Reporting	1 % Nitrate compounds (water dissociable)
Potassium Perchlorate (7778-74-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

US State Regulations

No further information available.

Canadian Regulations

Blue MZ	
WHMIS Classification	Note: Explosives are not regulated under WHMIS. They are subject to the regulations of the Explosives Act of Canada.
Potassium Nitrate (7757-79-1)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class C - Oxidizing Material Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Potassium Perchlorate (7778-74-7)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	CLASS F: Dangerously reactive material.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 08/11/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Comb. Dust	Combustible Dust
Expl. 1.3	Explosive Category 1.3
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Irrit. 2	Skin Irritation Category 2

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STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H203	Explosive; fire, blast or projection hazard
	May form combustible dust concentrations in air
H302	Harmful if swallowed
H319	Causes serious eye irritation
H335	May cause respiratory irritation

Party Responsible for the Preparation of This Document

Alliant Powder
Federal Cartridge Company
900 Ehlen Drive
Anoka, MN 55303
1-800-635-7656

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS 2