

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 05/29/2015

Reviewed on 05/29/2015

## 1 Identification

- **Product identifier**
- **Trade name:** Black MZ
- **Article number:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Muzzleloading and Black Powder Cartridges
- **Restrictions on use:** See Sections 8 and 10 for further information.
- **Details of the supplier of the Safety Data Sheet**
- **Distributor/Supplier:**  
Alliant Powder  
2299 Snake River Avenue  
Lewiston, ID 83501  
800-379-1732  
email@email.com
- **Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924, +1 (813)248-0585

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS03 Flame over circle

Ox. Sol. 1    H271    May cause fire or explosion; strong oxidizer.



GHS08 Health hazard

Carc. 2    H351    Suspected of causing cancer.



GHS07

Acute Tox. 4    H302    Harmful if swallowed.

- **Additional information:**

There are no other hazards not otherwise classified that have been identified.

0 percent of the mixture consists of ingredient(s) of unknown toxicity.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS03 GHS07 GHS08

- **Signal word** Danger

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- **Hazard-determining components of labeling:**

potassium perchlorate  
Carbon black

- **Hazard statements**

H271 May cause fire or explosion; strong oxidizer.  
H302 Harmful if swallowed.  
H351 Suspected of causing cancer.

- **Precautionary statements**

P221 Take any precaution to avoid mixing with combustibles.  
P283 Wear fire/ flame resistant/retardant clothing.  
P210 Keep away from heat.  
P264 Wash thoroughly after handling.  
P280 Wear protective gloves / eye protection / face protection.  
P270 Do not eat, drink or smoke when using this product.  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P306+P360 If on clothing: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.  
P371+P380+P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.  
P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.  
P308+P313 If exposed or concerned: Get medical advice/attention.  
P330 Rinse mouth.  
P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Hazard description:**

- **WHMIS-symbols:** Explosive products are not classified under WHMIS.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 1  
Fire = 3  
Reactivity = 3

The substance possesses oxidizing properties.

- **HMIS-ratings (scale 0 - 4)**



HEALTH 1 Health = 1  
FIRE 3 Fire = 3  
REACTIVITY 3 Reactivity = 3

\* - Indicates a long term health hazard from repeated or prolonged exposures.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

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### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

7757-79-1	potassium nitrate	 Ox. Sol. 2, H272	40-60%
7778-74-7	potassium perchlorate	 Ox. Sol. 1, H271  Acute Tox. 4, H302	20-40%
1333-86-4	Carbon black	 Carc. 2, H351	<1%

- **Additional information:**

For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.

### 4 First-aid measures

- **Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

In case of irregular breathing or respiratory arrest provide artificial respiration.

- **After inhalation:**

Supply fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Seek medical treatment in case of complaints.

- **After skin contact:**

Brush off loose particles from skin.

Immediately wash with water and soap and rinse thoroughly.

If skin irritation is experienced, consult a doctor.

- **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed**

Blast injury if mishandled.

Breathing difficulty

Coughing

Dizziness

Methaemoglobinaemia

- **Danger**

Danger of blast or crush-type injuries.

Danger of disturbed cardiac rhythm.

Harmful if swallowed.

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May cause damage to organs through prolonged or repeated exposure.

- **Indication of any immediate medical attention and special treatment needed**

Monitor circulation, possible shock treatment.

Medical supervision for at least 48 hours.

Product may produce physical injury if mishandled. Treatment of these injuries should be based on the blast and compression effects.

## 5 Fire-fighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:**

DO NOT fight fire when fire reaches explosives.

Flood area with water. If no water is available, carbon dioxide, dry chemical or earth may be used. If the fire reaches the cargo, withdraw and let fire burn.

- **For safety reasons unsuitable extinguishing agents:** None.

- **Special hazards arising from the substance or mixture**

Explosive; fire, blast or projection hazard.

During heating or in case of fire poisonous gases are produced.

- **Advice for firefighters**

- **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

- **Additional information**

Eliminate all ignition sources if safe to do so.

In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

Flammability Classification: (defined by 29 CFR 1910.1200) Explosive. Can explode under fire conditions.

Individual devices will randomly explode. Mass explosion of multiple devices is possible under certain conditions. Burning material may produce toxic and irritating vapors. In unusual cases, shrapnel may be thrown from exploding devices under containment. See 2012 Emergency response Guidebook for further information.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Use respiratory protective device against the effects of fumes/dust/aerosol.

Isolate area and prevent access.

Remove persons from danger area.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Keep people at a distance and stay upwind.

Protect from heat

Keep away from ignition sources.

Take any precaution to avoid mixing with combustibles.

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

Send for recovery or disposal in suitable receptacles.

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- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Handle with care. Avoid jolting, friction and impact.  
Use only in well ventilated areas.  
Prevent formation of dust.  
Any deposit of dust which cannot be avoided must be regularly removed.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect from heat.  
Keep respiratory protective device available.  
Emergency cooling must be available in case of nearby fire.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Provide ventilation for receptacles.  
Avoid storage near extreme heat, ignition sources or open flame.  
Protect from humidity and water.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Store away from flammable substances.  
Do not store together with oxidizing and acidic materials.
- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed receptacles.  
Keep away from heat.  
This product is hygroscopic.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

### Components with limit values that require monitoring at the workplace:

#### 1333-86-4 Carbon black

PEL (USA)	Long-term value: 3.5 mg/m <sup>3</sup>
REL (USA)	Long-term value: 3.5* mg/m <sup>3</sup> *0.1 in presence of PAHs; See Pocket Guide Apps.A+C

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TLV (USA)	Long-term value: 3* mg/m <sup>3</sup> *inhalable fraction
EL (Canada)	Long-term value: 3 mg/m <sup>3</sup> IARC 2B
EV (Canada)	Long-term value: 3.5 mg/m <sup>3</sup>
LMPE (Mexico)	Long-term value: 3* mg/m <sup>3</sup> A3, *fracción inhalable

• **Additional information:** The lists that were valid during the creation were used as basis.

• **Exposure controls**

• **Personal protective equipment:**

• **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid close or long term contact with the skin.

• **Engineering controls:** No further relevant information available.

• **Breathing equipment:**

Not required under normal conditions of use.

Use suitable respiratory protective device in case of insufficient ventilation.

For spills, respiratory protection may be advisable.

• **Protection of hands:**

Gloves not required under normal conditions of use.

Wear protective gloves to handle contents of damaged or leaking units.

• **Eye protection:**



Safety glasses

• **Body protection:**

Not required under normal conditions of use.

Protection may be required for spills.

• **Limitation and supervision of exposure into the environment**

No further relevant information available.

• **Risk management measures**

Organizational measures should be in place for all activities involving this product.

## 9 Physical and chemical properties

• **Information on basic physical and chemical properties**

• **General Information**

• **Appearance:**

<b>Form:</b>	Granular
<b>Color:</b>	Grey to Black.
<b>Odor:</b>	Odorless

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- **Odor threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
  - Melting point/Melting range:** Undetermined.
  - Boiling point/Boiling range:** Undetermined.
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Auto-ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Explosive when mixed with combustible material.
- **Explosion limits:**
  - Lower:** Not determined.
  - Upper:** Not determined.
- **Oxidizing properties** Oxidizer
- **Vapor pressure:** Not determined.
- **Density:** Not determined.
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with**
  - Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic:** Not determined.
  - Kinematic:** Not determined.
- **Other information** No further relevant information available.

### 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**  
Explosive; fire, blast or projection hazard.  
Reacts with strong acids.  
Acts as an oxidizing agent on organic materials such as wood, paper and fats.  
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.

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- **Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide  
Chlorine compounds  
Nitrogen oxides (NO<sub>x</sub>)

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Subacute to chronic toxicity:** Suspected of causing cancer.
- **Additional toxicological information:** Harmful

- **Carcinogenic categories**

<b>· NTP (National Toxicology Program)</b>
None of the ingredients is listed.
<b>· OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
None of the ingredients is listed.

- **Probable Routes of Exposure**

Inhalation.  
Eye contact.  
Skin contact.  
Ingestion.

- **Acute effects (acute toxicity, irritation and corrosivity):**

Danger of blast or crush-type injuries.  
Harmful if swallowed.

- **Repeated Dose Toxicity:** May cause damage to organs through prolonged or repeated exposure.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** The product contains materials that are harmful to the environment.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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· **Other adverse effects** No further relevant information available.

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## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Incinerate in accordance with local, state and federal regulations.  
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- **UN-Number**
- **DOT**
- **ADR, IMDG**
- **IATA**
- **UN proper shipping name**
- **DOT**
- **ADR**
- **IMDG**
- **IATA**
- **Transport hazard class(es)**
- **DOT**
- 
- **Class**
- **Label**
- **ADR, IMDG**
- 
- **Class**
- **Label**
- **IATA**
- **Packing group**
- **DOT**

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· <b>ADR</b>	Not Regulated
· <b>IMDG</b>	II
· <b>IATA</b>	Forbidden
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special marking (IATA):</b>	FORBIDDEN BY AIR.
· <b>Special precautions for user</b>	Warning: Explosive substances und articles
· <b>EMS Number:</b>	F-B,S-Y
· <b>Segregation groups</b>	Perchlorates
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: Forbidden On cargo aircraft only: Forbidden
· <b>Remarks:</b>	NA3178 designation is only to be used for shipments of 100 lbs. or under.
<hr/>	
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
<hr/>	
· <b>IATA</b>	FORBIDDEN.
· <b>UN "Model Regulation":</b>	UN0499, Propellant, Solid, 1 (1.3C)

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

7757-79-1 | potassium nitrate

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

1333-86-4 | Carbon black

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

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- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

7778-74-7 | potassium perchlorate

NL

- **IARC (International Agency for Research on Cancer)**

1333-86-4 | Carbon black

2B

- **TLV (Threshold Limit Value established by ACGIH)**

1333-86-4 | Carbon black

A4

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

1333-86-4 | Carbon black

- **State Right to Know Listings**

Contact manufacturer.

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

- **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

- **Canadian Ingredient Disclosure list (limit 1%)**

1333-86-4 | Carbon black

- **Other regulations, limitations and prohibitive regulations**

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

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Date of preparation / last revision** 05/29/2015 / -

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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Ox. Sol. 1: Oxidising Solids, Hazard Category 1  
Ox. Sol. 2: Oxidising Solids, Hazard Category 2  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Carc. 2: Carcinogenicity, Hazard Category 2

**Sources**

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