



## SAFETY DATA SHEET

### 1. Identification

<b>Product identifier</b>	<b>Non-lead Centerfire Primer, Heavy Metal Free</b>
<b>Synonyms:</b>	<b>Zero Pollution Centerfire Primers</b>
<b>Product Codes:</b>	<b>Small Rifle ZP primer, Small Pistol ZP Primer, Large Rifle ZP Primer, 446SMRZP, 445SMZP</b>
<b>Recommended Use</b>	<b>Small Arms Ammunition</b>
<b>Recommended restrictions</b>	<b>None known.</b>

#### Manufacturer/Importer/Supplier/Distributor Information

<b>Company name:</b>	<b>Fiocchi of America</b>
<b>Address</b>	<b>6930 N. Fremont Rd. Ozark, MO 65721</b>
<b>Telephone</b>	<b>417 725 4118</b>
<b>Fax</b>	<b>417 725 1039</b>
<b>Website</b>	<b><a href="http://www.fiocchiusa.com">http://www.fiocchiusa.com</a></b>
<b>Emergency phone number</b>	<b>U.S.A: 800-424-9300 Canada: 703-741-5000</b>

### 2. Hazard(s) Identification

<b>Physical hazards</b>	Explosives	Division 1.4
<b>Health hazards</b>	Acute Toxicity (inhalation) Skin Sensitization Specific Target Organ Toxicity, Repeat Exposure	Category 4 Category 1A Category 2
<b>OSHA defined hazards</b>	None known	
<b>Label elements</b>		
<b>Hazard symbol</b>	None	
<b>Signal Word</b>	<b>WARNING</b>	
<b>Hazard Statement</b>	Fire or projection hazard.	
<b>Precautionary statement</b>		
<b>Prevention</b>	Keep away from heat. No smoking. Do not subject to shock. Wear eye protection. Avoid breathing decomposition products.	
<b>Response</b>	In case of fire: Evacuate area. Fight fire with normal precautions from a reasonable distance.	
<b>Storage</b>	Store in accordance with applicable fire codes. Keep only in original packaging.	
<b>Disposal</b>	Dispose of primer in accordance with local regulations.	

**Other information**

The hazardous components of this product are encased and are not biologically available. Therefore, some health hazards do not apply to the overall product. Use only outdoors or in a well-ventilated area. Do not attempt to open or dissect primer as it may explode causing projectiles dangerous to the eyes, skin and body. Keep stored in factory packaging in tray provided to avoid explosion risk.

**3. Composition / Information on Ingredients**

Chemical Name	CAS Number	%
Copper (Cup)	7440-50-8	61.6
Diazodinitrophenol	4682-03-5	3.4
Potassium Nitrate	7757-79-1	2.8
Nitrocellulose	9004-70-0	1.5-2.5
Nitroglycerin	55-63-0	0-1

**Composition Comments**

All concentrations are in percent by weight.

**4. First Aid Measures**

<b>Inhalation</b>	Remove to fresh air. If symptoms occur, get medical attention.
<b>Skin contact</b>	Wash exposed skin with plenty of soap and water. Get medical attention if irritation or other symptoms occur.
<b>Eye contact</b>	Do not rub eyes. Flush eyes with plenty of water. If eye irritation develops and persists, get medical attention.
<b>Ingestion</b>	Rinse mouth thoroughly with water. If symptoms develop get medical attention.

**Most important symptoms/effects, acute and delayed**

Fragments from fired primer can cause physical injury. When primer is fired or otherwise discharged, dust and/or fumes may be absorbed by the digestive system and can result in both acute and chronic overexposure. Symptoms may include gastrointestinal irritation, nausea, vomiting and diarrhea. High concentrations of dust and/or fumes may irritate throat and respiratory system and cause coughing. Ingestion of a complete primer can cause irritation to the digestive system, and possibly other unknown health effects. Nitroglycerin may cause a drop in blood pressure, headache, cyanosis and mental confusion.

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

Provide general supportive measures and treat symptomatically.

**General information**

In case of accident or if you feel unwell, seek medical advice immediately. Ensure that medical personnel are aware of the material(s) involved.

**5. Fire-Fighting Measures**

<b>Suitable extinguishing media</b>	Water spray; Water fog. Class A foam.
<b>Unsuitable extinguishing media</b>	None.
<b>Specific hazards arising from the chemical</b>	May ignite if heated to 250°F (121°C) causing projection of metal fragments. Mass explosion will not occur in factory packaging. Hazardous chemical and toxic by-products from chemical decomposition may be formed during fire. These products vary depending on fire conditions and other combustibles present during fire. These may include smoke, carbon monoxide, carbon dioxide, oxides of nitrogen.
<b>Personal protective equipment</b>	Self-contained breathing apparatus (SCBA) and full structural protective clothing should be worn for any fire or exposure to heat. This includes, but is not limited to, protective coat, pants, boots, firefighting gloves, SCBA with facepiece and helmet, protective hood and eye protection. (NFPA 1971)
<b>Fire suppression guidance</b>	Perform a risk assessment before engaging in offensive firefighting operations. Unless life safety risk or significant risk of property loss is present, consider taking defensive posture, protecting exposures and maintaining safe distance until material is consumed. For further information see the video "Ammunition and the Fire Fighter" by the Sporting Arms and Ammunition Manufacturers' Institute (SAAMI): <a href="http://www.youtube.com/watch?v=3SIOXowwC4c..">www.youtube.com/watch?v=3SIOXowwC4c..</a>

**Specific methods**

Evacuate personnel to a safe area according to pre-determined public protection zones. Refer to pre-incident response and structural plans to determine potential for involvement of other hazardous materials. Direct water streams at product to reduce projectile hazard from exploding cartridges. After the fire is controlled, heated products can still re-ignite and project pieces of metal posing risk to fire-fighters. Full PPE including respiratory protection should be worn during salvage, overhaul and fire investigation. Do not disturb the involved area until the fire is completely extinguished and the product and packaging are allowed to cool down to ambient temperatures.

**6. Accidental Release Measures****Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Eliminate all ignition sources. Wear appropriate personal protective equipment. Damaged primers can explode upon contact creating projectiles dangerous to eyes, skin and body. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**

Sweep up spillage and collect in original tray or submerge in oil. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid discharge into drains, water courses or onto the ground.

**7. Handling and Storage****Precautions for safe handling**

Projectiles from fired primer can cause physical injury. Do not handle until safety precautions have been read and understood. Do not subject to mechanical shock. Remove product from service if any of the following conditions occur: corrosion, physical damage, exposure to oil or spray lubricants. Provide appropriate exhaust ventilation. Avoid breathing decomposition products. Do not taste or swallow. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage**

Store in original container. Keep container tightly closed. Store in a cool, dry, well-ventilated place away from all sources of ignition. Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure Controls / Personal Protection****Occupational exposure limits**

Chemical Name	CAS Number	ACGIH TLV	OSHA PEL	Other Information
Copper	7440-50-8	0.2 mg/m <sup>3</sup> (fume)	0.1 mg/m <sup>3</sup> (fume) 1 mg/m <sup>3</sup> (dust)	
Diazodinitrophenol	4682-03-5	None established	None established	
Potassium Nitrate	7757-79-1	None established	None established	
Nitrocellulose	9004-70-0	None established	None established	
Nitroglycerin	55-63-0	0.05 ppm *Skin Designation	0.2 ppm 2.0 mg/m <sup>3</sup> *OSHA limit applies to skin	*Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	Wear appropriate protective clothing when cleaning equipment.
<b>Hand protection</b>	Wear protective gloves when cleaning equipment.
<b>Other</b>	
<b>Respiratory protection</b>	Not required under normal conditions of use.
<b>General hygiene Considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and Chemical Properties

<b>Appearance</b>	Brass Cup.
<b>Physical state</b>	Solid.
<b>Form</b>	Primer Cup
<b>Color</b>	Brass.
<b>Odor</b>	None.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not applicable.
<b>Melting point/freezing point</b>	Not applicable.
<b>Initial boiling point / boiling range</b>	Not applicable.
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.
<b>Flammability (solid, gas)</b>	Fire or projection hazard.
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Vapor pressure</b>	Not applicable.
<b>Vapor density</b>	Not applicable.
<b>Relative density</b>	>1
<b>Solubility(ies)</b>	Not applicable.
<b>Partition coefficient (n-octanol/water)</b>	Not applicable.
<b>Auto-ignition temperature</b>	250°F / 121°C
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not applicable.

## 10. Stability and Reactivity

<b>Reactivity</b>	May explode with friction, impact, heat, and low level electrical current.
<b>Chemical stability</b>	Risk of explosion by shock, friction, fire or other sources of ignition.
<b>Possibility of hazardous Reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Extreme temperatures. Avoid contact with incompatible materials. Heat, sparks, and flames.
<b>Incompatible materials</b>	Strong acids, bases, and oxidizers.
<b>Hazardous decomposition Products</b>	Carbon monoxide, carbon dioxide, oxides of nitrogen.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Fumes may irritate throat and respiratory system,
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<b>Skin contact</b>	Contact with decomposition products may cause skin irritation.
<b>Eye contact</b>	Contact with decomposition products may cause eye irritation.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation.

#### Symptoms related to the physical, chemical and toxicological characteristics

Projectiles from fired primer can cause puncture wounds. When primer is fired or otherwise discharged, dust and/or fumes may be absorbed by the digestive system and can result in both acute and chronic overexposure. Symptoms may include gastrointestinal irritation, nausea, vomiting and diarrhea. High concentrations of dust and/or fumes may irritate throat and respiratory system and cause coughing. Ingestion of a complete primer can cause irritation to the digestive system, and possibly other unknown health effects. Nitroglycerine may cause a drop in blood pressure, headache, cyanosis and mental confusion.

#### Information on toxicological effects

**Acute toxicity** Not expected to be acutely toxic under normal conditions of use.

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Nitroglycerin	55-63-0	685 mg/kg (Rat)	>2000 mg/k (Rat)	(ATE) 0.05 mg/l/4h

<b>Skin corrosion/irritation</b>	May cause skin irritation.
<b>Serious eye damage/eye irritation</b>	May cause eye irritation.
<b>Respiratory sensitization</b>	No data available.
<b>Skin sensitization</b>	Not expected to cause skin sensitization under normal conditions of use.
<b>Germ cell mutagenicity</b>	This product or any of its ingredients are not known or reported to be mutagenic.
<b>Carcinogenicity</b>	This product or any of its ingredients are not known or reported to be carcinogenic.
<b>Reproductive toxicity</b>	This product or any of its ingredients are not known or reported to be reproductive hazards.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	None known under normal conditions of use.
<b>Aspiration hazard</b>	Due to the physical form of the product it is not an aspiration hazard.
<b>Chronic effects</b>	Prolonged or repeated exposure to decomposition products may cause chronic effects.

## 12. Ecological Information

<b>Ecotoxicity</b>	Not expected to be hazardous to the aquatic environment in its present form.
<b>Persistence and degradability</b>	No data available on product mixture.
<b>Bioaccumulative potential</b>	No data available on product mixture.
<b>Mobility in soil</b>	No data available on product mixture.
<b>Other adverse effects</b>	No other adverse environmental effects known.

## 13. Disposal Considerations

#### Disposal instructions

Dispose of in accordance with applicable federal, state, and local regulations. Do not discharge into drains, water courses or onto the ground. Primers should be returned to the package in which they were originally contained. These packages have been specifically designed to protect primers during shipment and storage and also to protect the consumer. If this is not possible, submerge in oil.

#### Local disposal regulations

Dispose of in accordance with local regulations.

#### Waste from residues / unused products

Care must be taken to prevent environmental contamination from the use of this material. The user has the responsibility to dispose of unused material, residues, and containers in compliance with all relevant laws and regulations. Dispose in accordance with all applicable regulations. Do not discharge into drains, water courses or onto the ground.

#### Contaminated packaging

Dispose of in accordance with federal, state and local regulations.

**14. Transport Information****DOT**

UN Number: UN 0044  
 UN Proper Shipping Name: Primers, cap type  
 Transport Hazard Class(es): 1.4S  
 Packing Group: II  
 Special precautions for user: This material is a dangerous good for transport. All involved staff must be appropriately trained.  
 Other information: Above classification relates to the specific packaging in which this material is supplied by the manufacturer. If the material is repackaged, this classification may no longer be relevant.

**IATA**

UN Number: UN 0044  
 UN Proper Shipping Name: Primers, cap type  
 Transport Hazard Class(es): 1.4S  
 Packing Group: II  
 Special precautions for user: This material is a dangerous good for transport. All involved staff must be appropriately trained.  
 Other information: Above classification relates to the specific packaging in which this material is supplied by the manufacturer. If the material is repackaged, this classification may no longer be relevant.

**IMDG**

UN Number: UN 0044  
 UN Proper Shipping Name: Primers, cap type  
 Transport Hazard Class(es): 1.4S  
 Packing Group: II  
 Special precautions for user: This material is a dangerous good for transport. All involved staff must be appropriately trained.  
 Other information: Above classification relates to the specific packaging in which this material is supplied by the manufacturer. If the material is repackaged, this classification may no longer be relevant.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

**15. Regulatory Information****US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Copper (5000 lbs); Zinc (1000 lbs); Nitroglycerine (10 lbs)

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**  
 Immediate Hazard - No  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - Yes  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical**

Yes

**SARA 313 (TRI reporting)**

Copper (7440-50-8); Zinc (7440-66-6); Nitroglycerin (55-63-0)

**US state regulations****US. Massachusetts RTK - Substance List**

Copper (7440-50-8); Zinc (7440-66-6); Barium Nitrate (10022-31-8); Potassium Nitrate (7757-79-1); Nitrocellulose (9004-70-0); Nitroglycerin (55-63-0)

**US. New Jersey Worker and Community Right-to-Know Act**

Copper (7440-50-8); Zinc (7440-66-6); Diazodinitrophenol (4682-03-5); Barium Nitrate (10022-31-8); Potassium Nitrate (7757-79-1); Nitrocellulose (9004-70-0); Nitroglycerin (55-63-0);

**US. Pennsylvania Worker and Community Right-to-Know Law**

Copper (7440-50-8); Zinc (7440-66-6); Barium Nitrate (10022-31-8); Potassium Nitrate (7757-79-1); Nitrocellulose (9004-70-0); Nitroglycerin (55-63-0)

**US. Rhode Island RTK**

Copper (7440-50-8); Zinc (7440-66-6); Nitroglycerin (55-63-0)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This product does not contain any chemicals known to the state of California to cause cancer, birth defects, or any other reproductive harm.

**Toxic Substance Control Act**

Components of this product are listed on the United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory.

**16. Other Information, including date of preparation or last revision**

**Issue date** 12/31/2015.

**Revision date** 12/31/2015

**Version #** 01

**Disclaimer**

The information in this safety data sheet should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. The information in the sheet was written based on the best knowledge and experience currently available and is believed to be reliable and up to date as of the date of publication, but no warranty is expressed or implied. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.