This Material Safety Data Sheet has been prepared in compliance with Federal OSHA Hazard Communication Standard 29 CFR 1910.1200, ANSI Z400.1-1993 and the ISO Safety Data Sheet Standard. This product may be considered to be a hazardous chemical under 29 CFR 1910.1200. This information is required to be disclosed for safety in the workplace. This MSDS is applicable only to the product identified herein and only when used properly.

NOTE: Refer to Section XVII for List of Acronyms.

I. PRODUCT IDENTIFICATION

Product: CENTERFIRE PISTOL AMMUNITION (HEAVY METAL FREE - CTF FRANGIBLE)

<table>
<thead>
<tr>
<th>Hazardous Ingredients</th>
<th>Percent by Weight</th>
<th>CAS Number</th>
<th>Exposure Limits (PEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>70-85%</td>
<td>7440-50-8</td>
<td>TWA (dust) 1.0 mg/m³</td>
</tr>
<tr>
<td>Zinc</td>
<td>9-11%</td>
<td>7440-66-6</td>
<td>TWA (fume) 0.1 mg/m³, TWA (dust, mist) 1.0 mg/m³</td>
</tr>
<tr>
<td>Tin</td>
<td>5-9%</td>
<td>7440-31-5</td>
<td>TWA (dust/fume) 2.0 mg/m³</td>
</tr>
<tr>
<td>Nitroglycerin</td>
<td>0-1.6%</td>
<td>55-63-0</td>
<td>TWA CL 0.2 ppm (skin), STEL 0.1 mg/m³ (skin)</td>
</tr>
<tr>
<td>Graphite</td>
<td>Less than 1%</td>
<td>7440-44-0</td>
<td>(Natural) TWA 2.5 mg/m³, (Synthetic) Respirable Fraction: 5 mg/m³</td>
</tr>
<tr>
<td>Nitrocellulose</td>
<td>Less than 1%</td>
<td>9004-70-0</td>
<td>None established</td>
</tr>
</tbody>
</table>

Issued: September 4, 2008
III. HAZARDS IDENTIFICATION

Emergency Overview: Accidental fire may cause low-energy fragments to be emitted thus causing potential eye injury.

Potential Human Health Effects:
- **Skin Contact:** May cause irritation, dermatitis, allergic reaction (sensitization) in susceptible individuals.
- **Eye Contact:** Dust and fumes can irritate the eyes causing redness and discharge.
- **Inhalation:** Inhalation of dust or fumes may cause irritation to nose, throat, upper respiratory tract and lungs. Irritation may lead to sneezing, nausea, metal fume fever with flu-like symptoms, bronchitis, headache, lowering of blood pressure, and weakness.
- **Ingestion/Absorption:** Ingestion may cause severe headache, nausea, vomiting, abdominal pain, fatigue, diarrhea, trembling, ringing in ear and salivation.

Carcinogenicity Information: This product is not classified a carcinogen by IARC, OSHA, NTP or EPA.

IV. FIRST AID MEASURES

**Skin Contact:** Wash affected area thoroughly with soap and water. Remove contaminated clothing. Wash clothing thoroughly prior to reuse. Discard any contaminated leather items (i.e. shoes, etc.).

**Eye Contact:** If wearing contacts, immediately remove contact lenses. Hold eyelids apart and flush eyes thoroughly with water for at least 15 minutes. Obtain medical attention immediately.

**Inhalation:** Immediately remove to fresh air. Administer artificial respiration, if necessary. If breathing is difficult, administer oxygen. Obtain medical attention immediately.

**Ingestion/Absorption:** If conscious, drink large amounts of water. Induce vomiting. Immediately contact a physician or Poison Control Center. *Never* induce vomiting or give anything by mouth to an unconscious person.
V. FIRE HAZARDS

Flammable Properties: May ignite if heated above 130ºC. Will ignite when exposed to flame and high temperatures. Be cautious of low-energy fragments.

Extinguishing Media: Flood fire with water to fight fire and cool shells. If no water is available, use carbon dioxide, dry chemical or earth. Class D for metal dust generated from normal use, especially in indoor shooting ranges. Fine metal dust may present a fire hazard if allowed to accumulate and exposed to an ignition source. Finished non-powder components will not readily burn.

Fire-Fighting Instructions: Evacuate area immediately. Deluge area with water. Wear full fire-fighting protective gear including face shield or SCBA to protect from fragments.

VI. ACCIDENTAL RELEASE MEASURES

Safeguards: Remove from all sources of ignition. Airborne dust from indoor shooting ranges must be evacuated with an appropriate dust collection system, and the dust contained to avoid exposure in air exhaust stream.

Spill Cleanup: Use non-sparking equipment to clean up spill. Vacuum dust using a vacuum equipped with an appropriate filter to eliminate airborne dust in exhaust stream. Wet dust mop or other wet cleaning methods are acceptable if oxidizing cleaners are avoided. If disposal is necessary, refer to XIII. DISPOSAL CONSIDERATIONS.

VII. HANDLING AND STORAGE

Personnel Handling: Handle with care. Do not strike or crush the rounds.

Storage: Store in original containers in a cool, dry, well-ventilated area away from all sources of ignition. Do not subject to mechanical shock. Keep out of reach of children. This product must not be stored with acids, strong oxidizers or caustics.

VIII. PERSONAL PROTECTION/EXPOSURE CONTROLS

Engineering Controls: Local exhaust ventilation is recommended if significant dusting occurs. Otherwise, use general exhaust ventilation.

Personal Protective Equipment: Safety glasses or goggles recommended when handling or firing rounds. Hearing protection recommended when firing rounds. Use of a NIOSH/MSHA-approved respirator is recommended when concentrations to fumes and/or dust exceed the PEL or TLV. Wash after contact and before eating or drinking.

Exposure Guidelines: • Keep product away from sources of accidental ignition.

Exposure Limits: • Exposure limits listed with each hazardous chemical.
IX. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Solid</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Color</td>
<td>Variable</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
</tbody>
</table>

X. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal use conditions. Will not react with water.

Other Hazards:
- Incompatibility: Incompatible with acids, strong oxidizers and caustics.
- Polymerization: Will not occur.

Conditions to Avoid: Flames, sparks, percussion, shock, static, high temperatures (266°F or 130°C, or above)

XI. TOXICOLOGICAL INFORMATION

Oral LD 50: No available data.
Dermal LD 50: No available data.
Inhalation LC 50: No available data.
Irritation: Not a skin or eye irritant.

XII. ECOLOGICAL INFORMATION

Aquatic Toxicity: None

Environmental Impact: When used and disposed of properly, there is no known environmental impact.

XIII. DISPOSAL CONSIDERATIONS

This product is considered a characteristic hazardous waste per 40 CFR 261.24 for disposal purposes only. Dispose of as required by local, state and federal laws and regulations.
XIV. TRANSPORTATION INFORMATION

SHIPPING INFORMATION

Proper Shipping Name: Cartridges, Small Arms
Hazard Class: ORM-D
UN/NA No: N/A
Packing Group: N/A
Shipping Label: None required.
Special Information: May be reclassified internationally as:

  Hazard Class: 1.4S
  UN/NA No.: UN0012
  Packing Group: II
  Shipping Label: 1.4S label (or marked 1.4S)

XV. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA Inventory Status: Included on list.

This product contains a toxic chemical or chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

XVI. OTHER INFORMATION

NFPA Rating: Not established.

HAZARD CLASSIFICATION

  Chronic Health: Headache, nausea, weakness
  Acute Health: None
  Fire Hazard: 0 (per HMIS Rating)
  Pressure Hazard: Sudden release of pressure.
  Reactivity Hazard: 1 (per HMIS Rating)

NPCA-HMIS Ratings:
  Health: 1
  Flammability: 0
  Reactivity: 1

References:


  American National Standards Institute, Z400.1-1993

  International Standards Organization Safety Data Sheet Standard.

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XVII. LIST OF ACRONYMS

ACGIH  American Conference of Governmental Industrial Hygienists
AIHA WEEL American Industrial Hygiene Association-Workplace Environmental Exposure Level
ANSI  American National Standard Institute
BEI  Biological Exposure Indexes
CAS  Chemical Abstract Service
CFR  Code of Federal Regulations
CL  Ceiling Limits (not to be exceeded)
DSL  Domestic Substances List
EPA  Environmental Protection Agency
HMIS  Hazardous Materials Identification System
IARC  International Agency for Research on Cancer
IATA  International Air Transport Association
ICAO  International Civil Aviation Organization
ISO  International Standards Organization
LC  Lethal Concentration
LD  Lethal Dose
MITI  Ministry of International Trade and Industry (Japan)
MSHA  Mine Safety and Health Appliance
NFPA  National Fire Protection Association
NIOSH  National Institute for Occupational Safety and Health
NTA  National Transportation Agency (Canada)
NTP  National Toxicology Program
OSHA  Occupational Safety and Health Administration
ORM  Other Regulated Materials
PEL  Permissible Exposure Limit (OSHA)
SCBA  Self-contained Breathing Apparatus
STEL  Short-Term Exposure Limit
TLV  Threshold Limit Values (ACGIH)
TSCA  Toxic Substances Control Act
TWA  Time Weighted Average
UN/NA United Nations/North American (Identification number)
SARA  Superfund Amendments and Reauthorization Act
RCRA  Resource Conservation and Recovery Act

For additional information, please contact:

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P.O. Box 700, 870 Remington Road
Madison, NC 27025-0700
(800) 243-9700

The information contained in this Material Safety Data Sheet is provided to all individuals who are or will be exposed to this product through use, handling, storage or transport. Remington believes, yet makes no warranty, that all information contained in this document is current as of the date of publication.

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