

**Remington Arms****Material Safety Data Sheet**

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: 45 Colt 200 GR. BARNES COPPER SOLID**

**HMIS Rating**

**Health: 1**

**Flammability: 0**

**Reactivity: 1**

**IN EVENT OF EMERGENCY  
(Spill, Leak, Fire, Exposure, Accident)  
CALL CHEMTREC DAY OR NIGHT  
(800) 424-9300  
In Arlington, VA 741-5000  
Outside Continental U.S.A. (703) 741-5000**

**II. HAZARDOUS COMPONENT INFORMATION**

Centerfire Rifle Ammunition is comprised of the following four (4) components. The hazardous chemicals contained in each are listed. The percent by weight of the hazardous ingredients in Centerfire Rifle Ammunition are listed in the table below.

- |                           |  |
|---------------------------|--|
| <b>1. Projectile</b>      | Copper   |
| <b>2. Brass Shellcase</b> | Copper, Zinc   |
| <b>3. Propellant</b>      | Nitrocellulose, Nitroglycerin, Dinitrotoluene, Dibutyl phthalate, Graphite                             |
| <b>4. Primer</b>          | Copper, Zinc, Antimony, Aluminum, Barium, Diazodinitrophenol, Tetrazene, Nitrocellulose, Nitroglycerin |

Hazardous Ingredients	Percent by Weight	CAS Number	Exposure Limits (PEL)
Copper	72-78%	7440-50-8	TWA (dust) 1.0 mg/m <sup>3</sup>
Zinc	10-15%	7440-66-6	TWA (fume) 0.1 mg/m <sup>3</sup> TWA (dust, mist) 1.0 mg/m <sup>3</sup>
Aluminum	Less than 0.1%	7429-90-5	TWA 10 mg/m <sup>3</sup>
Antimony	Less than 0.1%	7440-36-0	TWA 0.5 mg/m <sup>3</sup>
Barium	Less than 0.1%	7440-39-3	TWA 0.5 mg/m <sup>3</sup>
Tetrazene	Less than 0.1%	109-27-3	None Established
Diazodinitrophenol	Less than 0.1%	87-31-0	None Established
Nitroglycerin	1-3%	55-63-0	TWA CL 0.2 ppm (skin) STEL 0.1 mg/m <sup>3</sup> (skin)

Graphite	Less than 1%	7440-44-0	(Natural) TWA 2.5 mg/m <sup>3</sup> (Synthetic) Respirable Fraction: 5 mg/m <sup>3</sup>
Dibutyl phthalate	Less than 1%	84-74-2	TWA 5 mg/m <sup>3</sup>
Nitrocellulose Cellulose Tetranitrate	Less than 1%	9004-70-0	None established

### 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 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 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 130°C. 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.

**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.

**Spill Cleanup:** Use non-sparking equipment to clean up spill. 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 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.

**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

<b>Form:</b>	Solid	<b>Evaporation Rate:</b>	N/A
<b>Color:</b>	Variable	<b>Melting Point:</b>	N/A
<b>Odor:</b>	None	<b>Solubility in Water:</b>	N/A
<b>Boiling Point:</b>	N/A	<b>pH:</b>	N/A
<b>Specific Gravity:</b>	N/A		
<b>Vapor Density:</b>	N/A		

#### 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:**

Barium to Stickleback: 400 mg/l  
Barium Nitrate to Stickleback: 760 mg/l

**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.

EPA Hazardous Waste Code: D005 (Barium)

#### 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:**

*Code of Federal Regulations, Monthly Summary*, CFR 1910.1200(g) and Appendix E (B.), Regulations Management Corporation, Bloomington, Indiana, July 1, 1994.

*Hazardous Chemical Desk Reference: Third Edition*, Richard J. Lewis, Sr., Van Nostrand Reinhold, Copyright 1993.

*American National Standards Institute*, Z400.1-1993

*International Standards Organization Safety Data Sheet Standard.*

**XVII. LIST OF ACRONYMS**

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

**For additional information, please contact:**

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

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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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