

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 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: CAP-CHUR CHARGE
Chemical Name: Mixture- Metal Alloy
Synonyms: 1-3CC, 4-10CC and 15-20CC
Chemical Family: Mixture
Formula: Not applicable- mixture
Product Use/Description: Animal Tranquilizer Syringes/Darts / Rimless-Rimfire brass shell cases

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

Cap-Chur Charge is comprised of the following five (5) components. The hazardous chemicals contained in each are listed. The percent by weight of the hazardous ingredients in Cap-Chur Charges are listed in the table below.

1. Case..... Iron, Copper, Zinc
2. Primer..... Copper, Zinc, Normal Lead Styphnate, Barium Nitrate, Antimony Sulfide, Lead Thiocyanate
3. Firing Pin..... Brass, C3600D Half Hard
4. Spring..... 302 Stainless Wire, NI CT Coils Mercury Free
5. Pyrotechnic Mixture.... Charcoal, Potassium Nitrate, Potassium Perchlorate, Graphite (other ingredients are trade secrets, but can be disclosed per 29 CFR 1910.1200(i)). (EXCEPTION: 1-3CC Cap-Chur Charge does not contain this mixture)

Hazardous Ingredients	Percent by Weight	CAS Number	Exposure Limits (OSHA PEL)	Exposure Limits (ACGIH TLV)
Copper	55-96%	7440-50-8	0.1 mg/m3 (fume), 1 mr/m3 (dust and mist)	0.2 mg/m3 (fume), 1 mr/m3 (dust and mist)
Zinc	10-55%	7440-66-6	None established	None established
Iron	0-99%	7439-89-6	None established	None established
Stainless Steel	0.015-0.018%	12597-68-1	None established	None established
Normal Lead Styphnate	4-5%	15245-44-0	None established	None established
Barium Nitrate	3-3.5%	10022-31-8	0.5 mg/m3	0.5 mg/m3
Antimony Sulfide	1-5%	1345-04-6	0.5 mg/m3	0.5 mg/m3
Lead Thiocyanate	0.1-0.6%	592-87-0	None established	None established
Charcoal	Less than 1%	64365-11-3	None established	None established
Potassium Nitrate	Less than 1%	7757-79-1	None established	None established
Potassium Perchlorate	Less than 1%	7778-74-7	None established	None established
Graphite	Less than 1%	7782-42-5	None established	2.5 mg/m3 Respirable Dust

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 to 150F. 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*.

Accidental Release: See above.

VII. HANDLING AND STORAGE

Personnel Handling: Handle with care. Do not strike or crush the rounds. Always wash hands thoroughly after handling. Safety glasses recommended when handling or firing rounds. Do not drop. Do not subject to mechanical shock.

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, metal powders, 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 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

Form:	Solid	Evaporation Rate:	N/A
Color:	Variable	Melting Point:	N/A
Odor:	None	Solubility in Water:	N/A
Boiling Point:	N/A	pH:	N/A
Specific Gravity:	N/A		
Vapor Pressure:	N/A		
Vapor Density:	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 (150F or 65C, or above)

XI. TOXICOLOGICAL INFORMATION

For Product:		For Components		
		Copper	Zinc	Iron
Oral LD ₅₀	Not applicable for product	3.5 mg/kg (mouse, intraperitoneal)	No data	30 g/kg (rat)
Dermal LD ₅₀	Not applicable for product	375 mg/kg (rabbit, subcutaneous)	No data	No Data
Inhalation LC ₅₀	Not applicable for product. Particles generated from firing may be slightly toxic.	No data	No data	No data
Irritation	Not a skin or eye irritant as a solid	Respiratory irritant	No data	Eye irritant

XII. ECOLOGICAL INFORMATION

Aquatic Toxicity:

Lead (LC 50) to Bluegill: 2-5 mg/l

Barium to Stickleback: 400 mg/l

Barium Nitrate to Stickleback: 760 mg/l

Copper: The toxicity of copper to aquatic organisms varies significantly not only with the species, but also with the physical and chemical characteristics of the water, such as its temperature, hardness, turbidity and carbon dioxide content. Copper concentration varying from 0.1 to 1.0 mg/l have been found by various investigators to be not toxic for most fish. However, concentrations of 0.015 to 3.0 mg/l have been reported as toxic, particularly in softwater to many kinds of fish, crustacea, mollusks, insects and plankton.

Zinc: The following concentrations of zinc have been reported as lethal to fish:

Rainbow trout fingerlings: 0.13 mg/l, 12 - 24 hours

Bluegill sunfish: 6 hr TLM = 1.9 - 3.6 mg/l (soft water, 30 C)

Sticklebacks: 1 mg/l (soft water) 24 hrs.

The presence of copper appears to have a synergistic effect on the toxicity of zinc towards fish.

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 for disposal of hazardous and non-hazardous wastes.

EPA Hazardous Waste Code: D008 (lead)

XIV. TRANSPORTATION INFORMATION

SHIPPING INFORMATION

Proper Shipping Name: Cartridges for Weapons, Inert Projectile

Hazard Class: 1.4S

UN/NA No.: UN0012

Packing Group: II

Shipping Label: 1.4S Label

Special Information: EX-8805210

XV. OTHER INFORMATION

NFPA Rating: Not Established

HAZARD CLASSIFICATION:

Chronic Health: Headache, nausea, weakness

Acute Health: Anemia, embryotoxin

Fire Hazard: 0 (per HMIS Rating)

Pressure Hazard: Sudden release of pressure.

Reactivity Hazard: 0 (per HMIS Rating)

NPCA-HMIS Ratings:

Health: 2

Flammability: 3

Reactivity: 4

Explosive: 2

References:

Material Safety Data Sheet, Olin Winchester Ammunition, January 18, 2008,
Olin MSDS No.: 00060.0001, Revision No.: 13

Material Safety Data Sheet, Olin Winchester Ammunition, January 18, 2008,
Olin MSDS No.: 00069.0001, Revision No.: 11

Material Safety Data Sheet, U. S. Department of Labor

Material Certification, Industrial Steel & Wire Co., October 13, 2004
878315-00

Chemical Analysis/Mechanical Test, Bolion Metal Products, Bellefonte Works,
ISO 9001:2000 Registered

For additional information, please contact:

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(800) 294-9482

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. Palmer Cap-Chur Equipment, Inc. believes, yet makes no warranty, that all information contained in this document is current as of the date of publication.
