



MATERIAL SAFETY DATA SHEET

RIMFIRE PRIMED CARTRIDGE CASE

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SECTION #1 - PRODUCT IDENTIFICATION:

RIMFIRE PRIMED CARTRIDGE CASE	
.22 Long Rifle / EP22LR	

SECTION #2 - CHEMICAL COMPOUNDS:

CHEMICAL COMPOUNDS			
	CAS NUMBER	TWA UNLESS OTHERWISE NOTED	
		OSHA PEL	ACGIH TLV
Cartridge Case - Brass (As Copper)	7440-50-8	1 mg/m ³ Fume: .1 mg/m ³	1 mg/m ³ Fume: .2 mg/m ³
*Zinc (As Zinc Oxide)	7440-66-6 1314-13-2	10 mg/m ³ (5 mg/m ³ as respirable dust) Fume: 5 mg/m ³	10 mg/m ³ Fume: 5 mg/m ³
Primer - *Lead Styphnate (As Lead)	12403-82-6	.05 mg/m ³	.05 mg/m ³
Tetracene	109-27-3	Not Established	Not Established
*Barium Nitrate (As Barium)	7440-39-3	.5 mg/m ³	.5 mg/m ³
*Antimony Sulfide (As Antimony)	7440-36-0	.5 mg/m ³	.5 mg/m ³

- * Indicates toxic chemical(s) subject to the reporting requirements of section 313 of title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR 372.

DEFINITIONS OF ACRONYMS

- OSHA PEL: Federal Occupational Safety and Health Administration's Permissible Exposure Limit. Some states and jurisdictions may have limits other than those listed. Contact your local authorities for Permissible Exposure Limits in your jurisdiction.
- ACGIH TLV: American Conference of Governmental Industrial Hygienists' Threshold Limit Values.
- TWA: Time Weighted Average.
- STEL: Short Term Exposure Limit, the 15 minute exposure which should not be exceeded at any time during a workday.
- CEILING: The concentration which is not to be exceeded at any time during a workday.
- CAS: Chemical Abstracts Service number.

SECTION #3 - PHYSICAL DATA

- | | |
|-------------------------|-------------------------------|
| Boiling Point: | Not Applicable |
| Melting Point: | Not Applicable |
| Vapor Pressure: | Not Applicable |
| Density: | 8.17 grams/cc |
| Solubility (Water): | Not Applicable |
| Evaporation Rate: | Not Applicable |
| Percent Volatiles: | Not Applicable |
| Vapor Density (Air= 1): | Not Applicable |
| Appearance: | Brass cylindrical metal case. |
| Odor: | None |
| Odor Threshold: | None |

SECTION #4 - FIRE FIGHTING & EXPLOSION DATA:

- | | |
|-----------------------------------|---|
| Flash Point (F): | Not Applicable |
| Auto Ignition Temperature (F): | Primed cases can ignite when heated over 250 degrees (may ignite independent of air). |
| Upper Explosive Limits (Percent): | Not Applicable |

Lower Explosive Limits (Percent): Not Applicable

Fire & Explosion Hazards:

Primed Cases:

Primed cases may explode if subjected to mishandling. Explosions may be caused by friction and by percussion, such as hammering, pounding, dropping, or bullet impact. Heating by fire, static electricity, sparks, hot tobacco ashes, or other uses may also cause primed cases to explode.

If primed cases are loose or in bulk, having contact one with another, one primed case exploding can, and may cause a simultaneous explosion of additional primed cases so situated.

Primed cases may “dust.” Small particles of priming compound may separate from the primed cases in the form of dust, especially when they are subjected to shaking or jolting. Accumulation of this dust in shipping containers, machines and work areas is extremely hazardous.

Extinguishing Media: Water

Special Fire Fighting Instructions:

Primed Cases:

If primed cases are stored or suspected of being stored in an involved structure, interior fire fighting tactics should not be employed. Exterior fire fighting using large hose streams should be accomplished using unmanned nozzles or from behind substantial barricades or heavy equipment.

In all cases, full fire fighter personal protection gear, including face shield and SCBA should be utilized.

SECTION #5A - EXPOSURE & EFFECTS – INHALATION

ROUTE OF EXPOSURE & EFFECTS – INHALATION

Acute: Inhalation of gases and particulates produced while firing may result in mild throat, eye, upper respiratory and lung irritation. The irritant effects may lead to lung symptoms such as bronchitis. An over exposure to gases or particulates, as a result of lead in the particulates, may also cause: anemia; nervous system symptoms which may include irritability, headache, restlessness, fatigue, muscle weakness, muscle tremor, convulsions, loss of memory, visual and hearing disturbances, loss of coordination; gastrointestinal effects such as vomiting, colic, diarrhea or constipation; circulatory symptoms such as a drop in blood pressure; reproductive effects including fertility problems, birth defects, miscarriages and possible kidney damage.

Chronic: Prolonged repeated over exposure to gases and particulates, as a result of lead in the particulates, may result in elevated blood lead levels and elevated zinc protoporphyrin levels. Symptoms of chronic overexposure to lead may include: anemia; lead lines on the gums; nervous system symptoms which may include irritability, headache, restlessness, fatigue, muscle weakness (i.e. wrist drop), muscle tremor, convulsions, loss of memory, visual and hearing disturbances, loss of coordination; gastrointestinal effects such as weight loss, vomiting, colic, diarrhea, constipation; circulatory symptoms such as a drop in blood pressure; reproductive effects including fertility problems, birth defects, miscarriages and possible kidney damage.

If acute or chronic symptoms should appear, contact a physician. Blood lead and zinc protoporphyrin levels are recommended and should be monitored as per OSHA 1910.1025.

First Aid: Remove person to fresh air. Seek medical attention.

SECTION #5B - EXPOSURE & EFFECTS – SKIN

ROUTES OF EXPOSURE & EFFECTS – SKIN

Acute: Elemental and inorganic lead compounds are not absorbed through the skin.

Chronic: Elemental and inorganic lead compounds are not absorbed through the skin.

First Aid: Wash exposed areas thoroughly with soap and water

SECTION #5C - EXPOSURE & EFFECTS – EYES

ROUTES OF EXPOSURE & EFFECTS – EYES

Acute: Contact with large volumes of smoke may cause minor eye irritation

Chronic: None reported

First Aid: Remove person to fresh air. If foreign body is suspected, wash eyes in fresh water for 15 minutes, contact physician.

SECTION #5D - EXPOSURE & EFFECTS – INGESTION

ROUTE OF EXPOSURE & EFFECTS – INGESTION

Acute: Acute ingestion of lead may occur from poor personal hygiene associated with the handling of lead bearing materials. The effects of lead ingestion would be similar to those listed under acute inhalation in addition to gastrointestinal irritation.

Chronic: Chronic ingestion of lead may occur from poor personal hygiene associated with the handling of lead bearing materials. The effects of lead ingestion would be similar to those listed under chronic inhalation.

Note: Wash hands thoroughly with soap and water before eating or smoking.

First Aid: In case of ingestion, contact physician.

SECTION #5E - EXPOSURE & EFFECTS -- CARCINOGENESIS DATA

N.T.P. No
I.A.R.C. Group 2B, possibly carcinogenic in humans
OSHA: No

SECTION #5F - EXPOSURE & EFFECTS - COMMENTS

Lead and barium are toxic metals that may be released during the firing of primed cases. Care should be taken in the cleaning of facilities to minimize the exposure potential to lead and barium. Persons engaged in these activities should wear protective clothing with an appropriate respirator. Operators should consult OSHA 1910.1025 for details pertaining to the handling of lead in the work environment.

Severe lead intoxication has been associated in the past with sterility, abortion, and stillbirth. Modern information confirming that lead poisoning affects birth rates or cause injury to the fetus in man is not conclusive.

SECTION #5G - AGGRAVATION OF PRE-EXISTING HEALTH CONDITIONS

AGGRAVATION TO PRE-EXISTING HEALTH CONDITIONS

Exposure to lead can aggravate pre-existing anemia, cardiovascular and respiratory diseases and conditions related to the gastrointestinal, reproductive, renal (kidney), and central nervous systems.

Reference: Industrial Toxicology, Safety and Health Applications in the workplace;
Williams/B.

SECTION #6 - REACTIVITY & POLYMERIZATION

Stability: Stable under normal use conditions

Conditions to Avoid: Vibration, heat (over 200 degrees F), moisture, concussion, electrostatic discharge, compression, open flame, and sparks.

Incompatible Materials: Acids, Alkalis, and other Corrosive Chemicals, Oils, Solvents, Water.

Hazardous Decomposition Materials: Oxides of Barium, Lead, Antimony, Nitrogen, Carbon, Sulfur and Antimony Fumes

Polymerization: Will not occur

SECTION #7 - SPILLS, LEAKS & DISPOSAL PROCEDURES

STEPS TO BE TAKEN - SPILLS:

Avoid conditions detailed in Section #6. Carefully pick up all primed cases and place them in storage containers. Damaged primed cases not suitable for use should be carefully placed into a water-filled container. Maintain water level above components at all times and secure container.

Waste Disposal Methods: Contact Manufacturer - Product Service (763) 323-3706

SECTION #8 - SPECIAL PROTECTIVE EQUIPMENT

Ventilation: Use in a well-ventilated area. Consult the current edition of ACGIH Industrial Ventilation Manual for recommendations.

Protective Equipment:

Eyes: Protected eyewear conforming to ANSI Z-87 must be worn when performing any and all operations. Additional protection, such as face shield and/or machine guards, are strongly recommended.

Gloves: Not generally required

Respirators: Not generally required

Hearing Protection: Not Applicable

SECTION #9 - SPECIAL PRECAUTIONS -- STORAGE & HANDLING

STORAGE:

Primed Cases:

Keep storage areas clean. Make sure the surrounding area is free of trash or other readily combustible materials.

The storage area should be free from any possible ignition sources or excessive heat. Do not store primed cases where they will be exposed to the direct rays of the sun. Avoid storage in areas where mechanical or electrical equipment is in operation.

Do not store primed cases in the same area with solvents, flammable gases, or highly combustible materials.

Observe all applicable local, state, and federal regulations regarding quantity and methods of storage.

HANDLING:

Primed Cases:

Care must always be exercised in any operation to avoid rough handling and undue force where a primed case is involved. Any malfunction of equipment must be cleared with extreme caution.

Avoid build-up of static electricity on the person when handling primed cases. Manufacturing equipment should be electrically grounded.

All equipment and adjacent areas must be kept scrupulously clean and free of primer dust. Work areas and equipment must be cleaned by wiping with a damp cloth or sponge, which should be thoroughly rinsed after each use. Maintain work area free of bits of hard, abrasive material during operations.

An absolute minimum of primed cases should be maintained at the immediate operation.

Accidentally spilled primed cases should be picked up immediately as they may explode when stepped upon (see Section #7).

When an operation is completed, any remaining primed cases should be returned to the package in which they were stored.

Keep primed cases away from children, household pets, or persons not recognizing them as potentially hazardous.

Never have an open flame, sources of sparks, or hot particles in the vicinity of primed cases.

Do not smoke near primed cases.

SECTION #10 – TRANSPORTATION INFORMATION

This material is a US Department of Transportation Hazardous Material.

US DOT Proper Shipping Name:	Cases, Cartridge, Empty with primer
Hazard Classification:	1.4S
UN Identification Number:	UN0055
Packing Group:	II

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