

MATERIAL SAFETY DATA SHEET MATERIAL: Primers, Cap Type	MSDS N°: 006	Rev. 01
	Date : June, 20, 2002	
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	PREPARED BY: Carlos V. Ferrero, Responsible Chemist	

1- IDENTIFICATION

Product Name : Primes, Small Arms Ammunition
 Synonyms : Primers, Large Rifles
 Primers, Small Rifles
 Primers, Large Pistol and Revolvers
 Primers, Small Pistol and Revolvers
 Chemical Family : Not Applicable
 Formula : Not Applicable
 Trade Name : Not Applicable
 CAS N° : Not Applicable

2- CHEMICAL COMPONENTS

	<u>CAS N°</u>	<u>TLV/TWA</u>
Primer Cup		
Brass	----- x -----	Not Applicable
Primer anvil		
Brass	----- x -----	Not Applicable
Primer Mix 5074		
Lead Styphnate	7439-92-1	0.05 g/m ³ (as lead fumes)
Tetrazene	109-27-3	Not applicable
Barium Nitrate	7440-39-3	0.5 mg/m ³
Aluminium	7429-90-5	10 mg/m ³
Antimony Sulfide	7440-36-0	0.5mg/m ³

3- PHYSICAL DATA

Boiling Point : Not Applicable
Melting Point : Not Applicable
Vapor Pressure : Not Applicable
Specific Gravity (Water = 1) : Not Applicable
Solubility (water) : Not Applicable

pH	:	Not Applicable
Volatiles	:	Not Applicable
Evaporation Rate	:	Not Applicable
Vapor Density (Air=1)	:	Not Applicable
Appearance	:	Not Applicable
Odor	:	Not Applicable
Odor Threshold	:	Not Applicable

4- SPECIAL PRECAUTIONS

Storage

- a) Quantity not exceeding 750,000 may be stored in a building if more than 100,000 are stored in any one pile and piles are at least 4.6m (15 ft) apart.
- b) Quantities exceeding 750,000 may be stored in a building if the following conditions are met:
 - The warehouse or storage room shall not be accessible to unauthorized personnel.
 - Primers shall be stored in cabinets. No more than 200,000 primers shall be stored in any one cabinet.
 - Shelves in cabinets shall have vertical separation of at least 0.6m (2 fts).
 - Cabinets shall be located against walls of the warehouse or storage room with at least 12.2m (40 ft) between cabinets.
 - Separation between cabinets may be reduced to 6.1m (20 ft) if barricades twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades shall extend at least 3m (10 ft) outward, shall be firmly attached to the wall, and shall be constructed of 6.4mm (1/4 in) boiler plate, 5mm (2 in) thick wood, brick or concrete block.
 - Primers shall be separated from materials classified as flammable liquids, flammable solids and oxidizing materials by a distance of 7.65m (25 ft) or by a fire partition having a fire resistance of at least 1 hour.
 - The building shall be protected by an automatic sprinkler system installed according approved regulations or standards.
- c) Small arms ammunition primers not stored according to (a) and (b) shall be stored in a magazine meeting the requirements of NFPA 495 - Chapter 6.
- d) Storage cabinets containing only primers are recommended. These cabinets shall be ruggedly constructed of wood at least 25mm (1 inch) nominal thickness, to delay or minimize the transmission of heat in the event of fire.

- e) Keep the storage area clean. Make sure the surrounding area is free of trash or other readily combustible materials.
- f) Be sure the storage area is free from any possible sources of excessive heat and is isolated from open flame, furnaces, water heaters, etc. Do not store primers where they will be exposed to the direct rays of the sun. Avoid storage in areas where mechanical or electrical equipment is in operation.
- g) Do not store primers in the same area with solvents, flammable gases, or highly combustible materials.
- h) Store primers only in their original factory containers. Do not transfer the primers from this approved container into one which is not approved. The use of glass bottles, fruit jars, plastic or metal containers, or other bulk containers for primer storage is extremely hazardous.
- i) Do not smoke in areas where primers are stored. Place appropriate “NO SMOKING” signs in these areas.
- j) Do not store primers in any area where they might be exposed to gun fire, bullet impact, or ricochets.
- k) Do not store primers with propellant powders or any other highly combustible materials so as to avoid as much as possible involving primers in a fire.
- l) No more than 10,000 small arms ammunition primers may be displayed in commercial establishments.
- m) No more than 10,000 small arms ammunition primers may be stored in residences.

Handling

- Avoid striking or shock in handling, storage or use.
- Avoid heating by fire, static electricity, sparks, hot tobacco ashes, or other unspecified abuses.
- Avoid handling, storage or use primers in bulk. Having contact one with another, one primer exploding can, and usually will, cause a violent simultaneous explosion of all primers so situated. In other words, one primer exploding for any reason under these conditions will normally cause all of the primers to explode in one violent blast.
- Avoid to expose to water, or any organic solvent, such as paint thinner, gasoline, kerosene, oil, grease, etc. The primers may deteriorate, resulting in misfires or poor ignition.
- Avoid buildup of static electricity. Precautions shall be taken on the person when handling primers or conducting handloading procedures. Loading cartridges equipment shall be electrically grounded.

- For loading or reloading cartridges, is not recommended the use of primer feeds, unless adequate protection from the hazard of explosion is provided. The placing of primers in tubes or columns or using other bulk systems in which the explosion of any primer may cause the explosion of all primers, is a potentially hazardous condition. It is the responsibility of the manufacturers of primer handling systems to provide safety and protective features for their equipment.
It is recommended that primers be handled individually unless adequate safeguards and used.
- All loading or reloading cartridges equipment and adjacent areas must be kept scrupulously clean and free of primer dust and powder accumulations. Work areas and loading equipment must be cleaned by wiping with a damp cloth or sponge which should be thoroughly rinsed after each use.
- Fired primers, primer cups, anvils or other bits of hard, abrasive materials are a hazard during loading or reloading operations as contact with them may cause primers to fire.
Accidentally spilled primers shall be picked up immediately as they may explode when stepped upon.
- An absolute minimum of primers shall be maintained at the loading operation. Only one packing tray at time shall be removed from the primer storage.
- When a priming operation is completed, any remaining primers shall be returned to the package in which they were originally contained.
- Keep out the primers of reach of children, house hold pets, and persons which not have a notion of the potentially hazardous of the primers.
- Never have an open flame, source of sparkes, or hot particles in the vicinity of primers.
- Avoid disassembly primers.

5- PROTECTIVE EQUIPMENT

- Eyes** : Recommendable approved protective glasses, when performing any and all cartridges loading operations.
- Gloves** : Not generally required
- Respirators** : Not generally required.

- Ears** : Hearing protection recommended during loading cartridges operations.
- Ventilation** : Use in well ventilated area.
- Additional protection** : Machine guards are strongly recommended for loading cartridges operations.

6- FIRE FIGHTING & EXPLOSION DATA

- Flash Point** : Not Applicable
- Auto Ignition Temperature** : Not Applicable
- Classification (OSHA):** : Explosive
- Upper Explosive Limits (%)** : Not Applicable
- Lower Explosive Limits (%)** : Not Applicable

Fire and Explosion Hazards

When primers in their original factory package (primers not in intimate contact) are subjected to fire, they usually explode a box at a time. There are no records which indicate that an explosion is to be expected under these conditions.

When primers have been removed from their original factory package and are in intimate contact with each other, it is known definitely that mass explosion occurs in cases of fire.

If heated to 250°F (120°C), primers may ignite, independent of air.

Ignited primers can produce small metallic fragments which may cause eye injury or superficial skin wounds if unprotected by standard fire fighter turnout gear.

Flood with water to fight fire and to

7- HEALTH HAZARD DATA

7.1- Exposure and Effects - Inhalation

7.1.1- Acute: Inhalation of dust or fumes of ignited primers may produce mild throat and eye irritation.

7.1.2- First aid: Remove person to fresh air.

7.2- Exposure and Effects - Eyes

7.2.1- Acute: Contact with large volume of fumes may cause minor eye irritation.

7.2.2- Chronic: None reported.

7.2.3- First Aid: Remove person to fresh air and wash with water. If an irritation develops contact a physician.

7.3- Exposure and Effects - Skin

7.3.1- Acute: Contact of skin with primers presents no health hazard.

7.3.2- Chronic: Contact of skin with primers presents no health hazard.

7.3.3- First Aid: Wash hands with soap and water before eating or smoking.

7.4- Exposure and Effects - Carcinogenicity

Contents not known to be carcinogenic.

8- REACTIVITY AND POLYMERIZATION

Stability	:	Stable under normal use conditions.
Conditions to Avoid-Stability	:	If is struck or is exposed to excess heat the primer ignite. May explode if heated above 250°F (120°C).
Incompatible Materials	:	Paint thinner, gasoline, kerosene, oil, grease, water, acids, alkalis, ammonia and other corrosive materials.
Hazardous Decomposition Products	:	When primer is ignited oxides of barium, lead, antimony, aluminium, nitrogen and carbon are produced.
Polymerization	:	Will not occur.
Conditions to Avoid	:	Listed previously.

9- SPILLS, LEAKS, HANDLING AND DISPOSAL OF SCRAPS

- Spills and Leaks: If container should rupture, spilled primers should be picked up immediately and carefully. Avoid striking or shock the primers. Place all spilled primers from broken shipping boxes in a container of water to which detergent has been added as a wetting agent. The only proper disposal method for scrap, is to incinerate in small amounts in a burner specifically designed for destroying the primers.
- After primers has been destroyed by proper incineration, the remaining scrap should be disposed off in accordance with local, state and federal codes which govern disposal.

10- SHIPPING DATA

1- IATA

UN N°	:	0044
Class	:	1.4S
Subsidiary Risk	:	-
Hazard Label	:	Explosive 1.4
Packing Group	:	-

Passenger Aircraft : Pkg Instr. -133
Max Net Qty/Pkge - 25Kg
Cargo Aircraft : Pkg Instr. -133
Max Net Qty/Pkge - 100Kg

1- IMDG

UN N° : 0044
Class : 1.4S
Subsidiary Risk : -
Label : Explosive 1.4
Packing Group : -
EmS N° : 1-08
MFAG Table N° : Subsection 7.3.

11- NOTES

- 11.1-** All hazards listed are not expected to be present unless the primers are ignited so that dust or fumes are created. Normal handling and shipping should not cause exposure to these hazards. This should also apply to the personal protective equipment.
- 11.2-** The conditions or methods of handling, storage or use and disposal of the primers are beyond our control and may be beyond our knowledge.
For these reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.
- 11.3-** The statements and recommendations made in this MSD do not supersede local, state, or Federal regulations. Proper authorities should be consulted on regulations for storage, handling or transportation and use of Small Arms Ammunition Primers, in each specific community.