

----- MATERIAL SAFETY DATA SHEET -----

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----- PRODUCT IDENTIFICATION -----

PRODUCT NAME: SAFETY BOOSTERS

DESCRIPTION: ALSO CALLED POWERLOADS, SAFETY CARTRIDGES, BLANKS, OR SMALL ARMS AMMUNITION (25 CAL. SHORT, 27 CAL. SHORT, 27 CAL. LONG).

----- HAZARDOUS INGREDIENTS -----

INGREDIENTS:	% (WT.)	CAS NUMBER:	EXPOSURE LIMITS:
LEAD STYPHNATE	1	15245-44-0	PEL = 0.050 MG/M3 (PB) TLV = 0.15 MG/M3 (PB)
TETRACENE	0.1	00109-27-3	NONE ESTABLISHED
BARIUM NITRATE	1	10022-31-8	PEL = 0.5 MG/M3 (BA) TLV = 0.5 MG/M3 (BA)
NITROGLYCERIN	5-11	00055-63-0	STEL = 0.1 MG/M3 (SKIN) TLV = 0.5 MG/M3 (SKIN)
NITROCELLULOSE	7-17	09004-70-0	NONE ESTABLISHED
BRASS	55-85	NONE EST.	NONE ESTABLISHED

EL = OSHA PERMISSIBLE EXPOSURE LIMIT (AS REVISED 01/19/89). TLV = ACGIH THRESHOLD LIMIT VALUE. THESE ARE 8 HOUR TIME-WEIGHTED AVERAGES UNLESS OTHERWISE INDICATED BY "C" (CEILING) OR "STEL" (SHORT TERM EXPOSURE LIMIT). A "SKIN" NOTATION INDICATES EXPOSURE SHOULD BE CONTROLLED FOR THE CUTANEOUS ROUTES INCLUDING THE MUCOUS MEMBRANES, EYES, AND SKIN. AIRBORNE EXPOSURES AS WELL AS DIRECT CONTACT MUST BE CONSIDERED.

----- PHYSICAL DATA -----

APPEARANCE AND ODOR: BRASS CASING COLOR CODED ON STAR CRIMP.

BOILING POINT: NOT APPLICABLE	MELTING POINT: NOT APPLICABLE
VAPOR PRESSURE: NOT APPLICABLE	VAPOR DENSITY: NOT APPLICABLE
EVAPORATION RATE: NOT APPLICABLE	SOLUBILITY IN WATER: NOT APPLICABLE
SPECIFIC GRAVITY: NOT APPLICABLE	PH: NOT APPLICABLE

----- FIRE AND EXPLOSION HAZARD DATA -----

FLASH POINT: NOT APPLICABLE FLAMMABLE LIMITS: NOT APPLICABLE

EXTINGUISHING MEDIA: WATER

SPECIAL FIRE FIGHTING PROCEDURES: FLOOD AREA WITH WATER OR KEEP CARTRIDGES COOL WITH WATER SPRAY.

UNUSUAL FIRE AND EXPLOSION HAZARDS: CARTRIDGES CAN EXPLODE WHEN EXPOSED TO TEMPERATURES ABOVE 200 C.

----- REACTIVITY DATA -----

STABILITY: STABLE

INCOMPATIBILITY: STRONG ACIDS AND OXIDIZING MATERIALS.

HAZARDOUS DECOMPOSITION PRODUCTS: OXIDES OF NITROGEN, ACRID FUMES, AND LEAD.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS TO AVOID: ACIDS, EXCESS HEAT, CRUSHING, AND ELECTRICAL CURRENTS.

----- HEALTH HAZARD DATA -----

KNOWN HAZARDS: IRRITATION FROM FUMES AND GASES.

CARCINOGENICITY: NO INGREDIENTS ARE LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.

PRIMARY ROUTES OF EXPOSURE: DERMAL, INHALATION

SIGNS AND SYMPTOMS OF EXPOSURE: NONE EXPECTED. CAN CAUSE IRRITATION TO EYES, SKIN, & RESPIRATORY SYSTEM. ADVERSE HEALTH EFFECTS ARE NOT EXPECTED FROM LONG TERM EXPOSURE TO FUMES AND GASES; HOWEVER, GOOD PERSONAL HYGIENE PRACTICES ARE ESSENTIAL TO KEEP EXPOSURE TO A MINIMUM.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: NONE ANTICIPATED.

----- EMERGENCY AND FIRST AID PROCEDURES -----

EYES: IF IRRITATION OCCURS, FLUSH WITH PLENTY OF WATER. CONSULT A PHYSICIAN IF SYMPTOMS PERSIST.

SKIN: PRACTICE GOOD HYGIENE BY WASHING WITH SOAP AND WATER AFTER USING AND BEFORE MEALS.

INHALATION: MOVE TO FRESH AIR. GET MEDICAL ATTENTION IF SYMPTOMS PERSIST.

INGESTION: GET IMMEDIATE MEDICAL ATTENTION.

OTHER: SEEK PROMPT MEDICAL ATTENTION IF PHYSICAL INJURY OCCURS FROM PINS, RIVETS, SHRAPNEL, ETC. FOR BLEEDING WOUNDS, PLACE CLEAN MATERIAL ON THE WOUND AND APPLY FIRM HAND PRESSURE. ELEVATE THE WOUND AND TRANSPORT IMMEDIATELY TO A MEDICAL FACILITY.

----- CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT -----

VENTILATION: GENERAL (I.E. NATURAL OR MECHANICALLY INDUCED FRESH AIR MOVEMENTS THAT MAINTAIN VAPOR CONCENTRATIONS BELOW RECOMMENDED EXPOSURE LIMITS).

EYE PROTECTION: SAFETY GLASSES WITH SIDE SHIELDS OR SAFETY GOGGLES.

RESPIRATORY PROTECTION: PARTICULATE RESPIRATOR (E.G. 3M8710) WHERE AIR MOVEMENT IS INADEQUATE TO MAINTAIN EXPOSURE BELOW RECOMMENDED LEVELS.

HEARING PROTECTION: MUFFS OR AURAL INSERTS. REFER TO THE APPLICABLE OSHA REGULATION 29 CFR 1910.95 OR 1926.101

OTHER: CLEANING POWDER ACTUATED TOOLS CAN RESULT IN SOME EXPOSURE TO LEAD. WEAR GLOVES OR WASH HANDS THOROUGHLY AFTER HANDLING AND BEFORE MEALS OR SNACKS.

----- PRECAUTIONS FOR SAFE HANDLING AND USE -----

HANDLING AND STORING PRECAUTIONS: STORE IN A COOL DRY PLACE. DO NOT CRUSH OR DROP. KEEP AWAY FROM EXCESS HEAT, ELECTRICAL CURRENT, STRONG ACIDS AND OXIDIZERS.

OTHER PRECAUTIONS: USE ONLY IN POWDER ACTUATED TOOLS DESIGNED TO HANDLE THESE BOOSTERS. EMPLOYEES MUST BE PROPERLY TRAINED AS PRESCRIBED BY APPLICABLE OSHA REGULATIONS 29 CFR 1910.243 (D) OR 1926.302 (E).

DISPOSAL METHODS: MISFIRES, BENT CARTRIDGES, ETC. SHOULD BE STORED IN A CONTAINER OF WATER TO WHICH DETERGENT HAS BEEN ADDED AS A "WETTING" AGENT. THE ONLY PROPER DISPOSAL METHOD IS TO INCINERATE IN SMALL AMOUNTS IN A BURNER

SPECIFICALLY DESIGNED FOR DESTROYING HAZARDOUS AMMUNITION.

----- REGULATORY INFORMATION -----

OSHA HAZARD COMMUNICATION: THIS MATERIAL SAFETY DATA SHEET HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD. THIS PRODUCT IS CONSIDERED TO BE A HAZARDOUS CHEMICAL UNDER THAT STANDARD.

DOT PROPER SHIPPING NAME: SMALL ARMS AMMUNITION/ORM-D.

TSCA INVENTORY STATUS: CHEMICAL COMPONENTS LISTED ON TSCA INVENTORY.

SARA TITLE III, SECTION 313: THIS PRODUCT CONTAINS 1% LEAD STYPHATE (CAS NO. 15245-44-0), 1% BARIUM NITRATE (CAS NO. 10022-31-8), AND 5-11% NITROGLYCERIN (CAS NO. 55-63-0) WHICH ARE SUBJECT TO REPORTING UNDER SECTION 313 OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372.

CONTACTS:

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