ALLFASTENERS.COM

CALIBER SHOT LOADS

.22 & .27 CALIBER SHOTS

CERTIFICATION | MATERIAL SAFETY DATA

FOR INSTALL SUPPORT
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FOR SPECIFICATION SUPPORT
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FOR CUSTOMER SUPPORT
888.859.6060

CALIBER SHOT LOADS

.22 & .27 CALIBER SHOTS

SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: Cartridges/Powder Loads for Powder Actuated Tools

Synonyms: Rimfire Cartridges for loads Power Device, Loads for Powder Actuated Fastening System, .22/.25/.27 Caliber Powder Loads, Power Loads, Industrial Loads, Shots, Loads, Powerloads, Safety Cartridges, or Safety Boosters, Blank Cartridges.

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

1.2.1.
Relevant identified uses: Used in Powder Actuated Fastening Tools

1.2.2.
Uses advised against: Not to be used in pistols, guns or other firearms

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company Name: Allfasteners USA LLC, 480 Meadow Lane Carlstadt, NJ 07072, United States

Telephone: 888.859.6060

Fax: 201.783.8840

Email: sales@allfasteners.com

1.4 EMERGENCY PHONE NUMBER

Emergency Telephone: 888.859.6060

SECTION 2: HAZARDOUS IDENTIFICATION

WARNING

THE CARTRIDGE IS EXPLOSIVE. KEEP AWAY FROM HEAT. DO NOT SUBJECT TO MECHANICAL SHOCK. THE CONTENT OF THE CARTRIDGE IS COMPLETELY SEALED WITHIN THE SHELL. UNDER NORMAL HANDLING OF THE CARTRIDGE, NO EXPOSURE OF ANY HARMFUL MATERIAL WILL OCCUR. PARTICLES FROM FIRING MAY BE HARMFUL IF INHALED. DO NOT TAKE INTERNALLY. DISMANTLING OF THE PRODUCT IS PROHIBITED.

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification: According to United Nations GHS (Rev. 4, 2011)

Explosive Division: 1.4

Hazard Statement H204: Fire or protection hazard

STOT RE Category: Category 1

Reproductive Toxicity Category: Category 1A

Aquatic Environment: Chronic II

2.2 LABEL ELEMENTS

Labeling per UN GHS (Rev.4, 2011)
Hazard Pictograms:

US DOT SYMBOLS

GHS HAZARD SYMBOLS

Signal Word: WARNING

Hazard Statements: H204 - Fire or protection hazard

Precautionary Statements: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources

P250 - Do not subject to shock

P280 - Wear eye protection

2.3 OTHER HAZARDS

No additional information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 SUBSTANCE

Not applicable

3.2 MIXTURE

Consists of the following four components:

TABLE 1: COMPONENT MIXTURES

COMPONENTS	MATERIAL	%
A) Shell Case	Steel	77-84%
B) Propellent	Smokeless	11-18%
C) Priming Mix/Primer	-	2-6%
D) Paper Wad	Paper	Non-Hazardous

3.2 MIXTURE CONTINUED

A) Shell Case

CAS or Chemical Name	Steel				
CAS Number	12597-69-2				
Percent Range	75-84%				
Hazardous Per 29 CFR 1910.2000	Yes (as dust or fume)				
Exposure Standards		OSHA (PEL)		AGGIH (TLV)	
		ppm	Mg/m^3	ppm	Mg/m^3
	TWA	N/A	1 (dust,fume) 0.1 (fume)	N/A	1 (dust,fume) 0.2 (fume)
	CEILING	None	None	None	None
	STEL	None	None	None	None

CAS or Chemical Name	Copper				
CAS Number	7440-50-8				
Percent Range	1-3%				
Hazardous Per 29 CFR 1910.2000	Yes (as dust or fume)				
Exposure Standards		OSHA (PEL)		AGGIH (TLV)	
		ppm	Mg/m^3	ppm	Mg/m^3
	TWA	N/A	15 (dust,fume) 5 (fume)	N/A	10 (dust,fume) 5 (fume)
	CEILING	None	None	None	None
	STEL	None	None	None	10 fume

B) Propellant

CAS or Chemical Name	Nitrocellulose
CAS Number	9004-70-0
Percent Range	8-13%
Hazardous Per 29 CFR 1910.2000	
Exposure Standards	Not established

3.2 MIXTURE CONTINUED

B) Propellant

CAS or Chemical Name	Nitroglycerine				
CAS Number	55-63-0				
Percent Range	4-7%				
Hazardous Per 29 CFR 1910.2000	Yes				
Exposure Standards		OSHA (PEL)		AGGIH (TLV)	
		ppm	Mg/m^3	ppm	Mg/m^3
	TWA	N/A	None	0.05	0.46 (skin)
	CEILING	0.2	1.0 (skin)	None	None
	STEL	None	None	None	10 fume

CAS or Chemical Name	Dibutyl Phthalate				
CAS Number	84-74-2				
Percent Range	0.5-2%				
Hazardous Per 29 CFR 1910.2000	Yes				
Exposure Standards		OSHA (PEL)		AGGIH (TLV)	
		ppm	Mg/m^3	ppm	Mg/m^3
	TWA	None	5	None	5
	CEILING	None	None	None	None
	STEL	None	None	None	None

C) Priming Mix/Primer

CAS or Chemical Name	Copper
CAS Number	7440-50-8
Percent Range	0-5%
Exposure Standards	See copper above

3.2 MIXTURE CONTINUED

B) Priming Mix/Primer

CAS or Chemical Name	Zinc
CAS Number	7440-66-6
Percent Range	0-2%
Exposure Standards	Not established

CAS or Chemical Name	Lead Styphnate				
CAS Number	15245-44-0				
Percent Range	0-1%				
Hazardous Per 29 CFR 1910.2000	Yes				
Exposure Standards As inorganic lead (See 29 CFR 1910.1025)		OSHA (PEL)		AGGIH (TLV)	
		ppm	Mg/m^3	ppm	Mg/m^3
	TWA	N/A	0.05	None	0.05
	CEILING	None	None	None	None
	STEL	None	None	None	None
	ACTION LEVEL	None	0.03	None	None

CAS or Chemical Name	Barium Nitrate				
CAS Number	10022-31-8				
Percent Range	0-1%				
Hazardous Per 29 CFR 1910.2000	Yes				
Exposure Standards Soluble barium compounds as Ba		OSHA (PEL)		AGGIH (TLV)	
		ppm	Mg/m^3	ppm	Mg/m^3
	TWA	N/A	0.05	None	0.05
	CEILING	None	None	None	None
	STEL	None	None	None	None

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

General: IF exposed or concerned: Get medical advice/attention.

Inhalation: Not normally a hazard due to physical form of product.

When the product is fired, a small amounts of particles may be generated which may be slightly irritating to the respiratory tract and may be harmful. Assure fresh air breathing. Allow the victim to rest.

Skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

Eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

Ingestion: Not a likely route of exposure as a cartridge. Not normally a hazard due to physical form of product.

If swallowed, rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Not expected to present a significant hazard under anticipated conditions of normal use.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No additional information available.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Suitable extinguishing media: Foam. Water Spray. Sand. Dry Powder. Carbon Dioxide.

Unsuitable extinguishing media: DO NOT use heavy water stream.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

No additional information available.

5.3 ADVICE FOR FIRE-FIGHTERS

Firefighting instructions: Use water spray or foam for colling exposed containers. Use caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting: DO NOT enter the fire area without proper protective equipment, including respiratory protections.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Keep unnecessary personnel away. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

6.2 ENVIRONMENTAL PRECAUTIONS

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Spills of this material should be handled carefully. Do not subject materials to mechanical shock. A spill of this material will normally not require emergency response team capabilities. Collect material and place in a designated, labeled waste container. See Section 13 for waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Handle in accordance with good industrial hygiene and safety practice. Avoid direct contact with heat and ignition sources. Avoid prolonged skin contact, contact with eyes, and ingestion. It is recommended that product is used in well ventilated areas. Wash hands before eating, drinking, and/or smoking. No smoking or open flames should be in the vicinity of the product. Provide for appropriate exhaust ventilation and dust collection at machinery. Avoid dust formation.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage conditions:	Keep only in the original container in a cool, well-ventilated place away from direct sunlight, heat sources. Store in a dry place.
Incompatible products:	Strong bases. Strong acids
Incompatible materials:	Sources of ignition. Direct sunlight
Storage Temperature:	5-25°C
Prohibitions on mixed storage:	KEEP SUBSTANCE AWAY FROM: highly flammable materials.
Storage area:	Store away from heat.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Protective measure: Wear appropriate personal protective equipment. Use of hearing protection is recommended when using this product.

Eye protection: Wear goggles or safety glasses.

Hand protection: Not normally needed, general purpose work gloves recommended.

Skin & body protection: Wear long sleeve shirt/long pants and other clothing as required to minimize contact.

Respirator protection: An approved respirator should be worn whenever workplace conditions warrant respirator use.

General Hygiene: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Engineering Controls: When using indoor good general ventilation should be used. Use explosion-proof ventilation. Provide eyewash station and emergency shower.

8.2 EXPOSURE CONTROLS

TABLE 2: EXPOSURE CONTROLS

EXPOSURE LIMITS			
COMPONENTS	OSHA (PEL)	ACGIH (TLV)	NIOSH
Copper (CAS 7440-50-8)	0.1 mg/m^3 (fume) 1 g/m^3 (dust/mist)	0.2 mg/m^3 (fume) 1 g/m^3 (dust/mist)	N/E
Nitrocellulose (CAS9004-70-0)	5 mg/m^3 (respirable) 15 g/m^3 (total dust)	N/E	5 mg/m^3 (respirable) 10 g/m^3 (total dust)
Nitroglycerin (CAS 55-63-0)	0.2 ppm (skin)	0.05 ppm (skin)	0.1 mg/m^3 (skin, STEL)
Lead Styphnate (CAS 15245-44-0)	0.05 mg/m^3 (TWA)	0.05 mg/m^3	N/E
Dibutyl Phthalate (CAS 84-74-2)	5 mg/m^3	5 mg/m^3	5 mg/m^3
Barium Nitrate (CAS 10022-31-8)	0.5 mg/m^3	0.5 mg/m^3	0.5 mg/m^3

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Cylindrical brass/steel	**Freezing/Melting Point:**	Not applicable
Form:	Solid	**Boiling Point:**	Not applicable
Color:	Brass/Gray	**Flash Point:**	Not applicable
Odor:	Odorless.	**Evaporation Rate:**	Not applicable
Odor Threshold:	Not applicable	**Specific Gravity:**	Not applicable
pH:	Not applicable	**VOC:**	Not applicable
Upper Flam:	Not applicable	**Lower Flam:**	Not applicable
Vapor Pressure:	Not applicable	**Vapor Density:**	Not applicable
Decomposition:	Not applicable	**Kow:**	Not applicable
Solubility:	Insoluble	**Viscosity:**	Not applicable

9.2 OTHER INFORMATION

No additional information available.

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

No additional information available.

10.2 CHEMICAL STABILITY

Stable under normal conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Not established.

10.4 CONDITIONS TO AVOID

Direct sunlight. Extremely high or low temperatures. Heat. Sparks. Open flame. Overheating.

10.5 INCOMPATIBLE MATERIALS

Strong acids. Strong bases.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Fume. Carbon monoxide. Carbon dioxide. Nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Routes of Absorption: This physical nature of this product makes absorption from any route unlikely. A small amounts of inhalable particles may be created when cartridge is fired.

Warning Statement & Warning Properties: Particles from firing may be harmful if inhaled.

Human Threshold Response Data:

Odor Threshold Irritation Threshold	No Data No Data
Immediately Dangerous to Life or Health	The IDLH concentration has not been established for this product.

Signs, Symptoms & Effect of Exposure Inhalation:

Skin:

Acute	Dermal exposure to the propellant may cause irritation which would subside rapidly upon removal of material without permanent damage. Additional effects would be similar to those described for acute inhalation exposure.
Chronic	No additional effects are known or have been reported except for those described for acute inhalation exposure. This product is composed of a finished cartridge, and the propellant is completely sealed. It is judged that the physical nature of the product, the low percentage of propellant in the product and its use would preclude inhalation of a sufficient amount of propellant and the development of these acute and/or chronic symptoms.

Eyes:

Eyes	Irritation may occur with inflammation of the conjunctiva, result in permanent impairment of vision. It is judged that this effect would not occur because of the physical nature of the product, and low percentage of propellant in the product and its use.

Ingestion:

Acute	Irritation to the gastrointestinal tract. Additional effects would be similar to those described for acute inhalation exposure.
Chronic	No additional effects are known or have been reported except for those described for acute inhalation exposure. It is judged that the physical nature of the product, the low percentage of propellant in the product, and its use would preclude ingestion and the development of these acute and/or chronic symptoms.

Medical Conditions Aggravated by Exposure: None known or reported.

Interactions with Other Chemicals Which Enhance Toxicity: None known or reported.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS CONTINUED

Animal Toxicology:

Acute Toxicology:

Inhalation LC 50	No data
Dermal LD 50	No data
Oral LD 50	No data
Irritation	Not an irritant skin or eyes as a cartridge.

Acute Target Organ Toxicity: Nitroglycerin will produce dilation of blood vessels and drop in blood pressure which may affect the heart. It has also been shown to cause methemoglobinemia (cyanosis). It is judged that the low concentration of nitrocellulose and nitroglycerin and the physical nature of the product would preclude the occurrence of these symptoms from exposure to this product.

Chronic Target Organ Toxicity: There are no known or reported effects from repeated exposure to this product.

Reproductive & Development Toxicity: There are no known or reported effects on reproductive function or fetal development.

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA. Lead is classified as a carcinogen by IARC and EPA. Based on the physical nature of the product and its use, it is judged that the risk of cancer is not significant from exposure to the product.

Mutangencity: This product is not known or reported to be mutagenic.

Aquatic Toxicity: No data is available on this product.

Individual components are as follows:

Nitrocellulose: Fish are unaffected by nitrocellulose at concentrations of 1000 mg/1.

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

No data is available on this product.

Individual constituents are as follows:

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 soft water to many kinds of fish, crustacea, mollusks, insects, and plankton.

Lead: LC 50 (48 hrs.) to bluegill (Lepomis macrochirus) is reported to be 2-5 mg/l. Lead is toxic to waterfowl. Nitrocellulose: LC50 > 1000 mg/l (fish, invertebrates, algae)

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

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

Bluegrill sunfish: 6 hrTLM = 1.9 ¨3.6 mg/l (soft water, 30¡C) Rainbow trout: 4 mg/l (hard water) 3 days

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

12.2 PERSISTENCE AND DEGRADABILITY

Not biodegradable. Bullets may fragment and decompose in soil leading to accumulation of lead.

12.3 BIOACCUMULATIVE POTENTIAL

No data available.

12.4 MOBILITY IN SOIL

Dissolved lead from degraded bullets may migrate through soil.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

If this product becomes a waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D003.

If this product becomes a waste, it will be a hazardous waste which is subject to the Land Disposal Restrictions under 40 CFR 268 and must be managed accordingly.

OTHER: Deactivation

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

SECTION 14: TRANSPORT INFORMATION

In accordance with ADR / RID / IMDG / IATA / ADN

14.1 UN NUMBER

0332

14.2 UN PROPER SHIPPING NAME

Cartridges, power device

14.3 TRANSPORT HAZARD CLASS(ES)

1.4S

14.4 PACKING GROUP

PGII

14.5 ENVIRONMENTAL HAZARDS

Dangerous for the environment : No Marine pollutant : No

14.6 SPECIAL PRECAUTIONS FOR USER

Read safety instructions, SDS and emergency procedures before handling.

NOTE

LAND: See 49 CFR 173.63 for ORM-D or Limited Quantity Reclassification. **AIR:** 25kg per package passenger aircraft 100kg per package cargo aircraft.

SECTION 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

US Federal:

TSCA	The components of this product are listed on the Toxic Substance Control Act inventory.				
CERCLA	Copper, R.Q.* = 5000 lbs.; Zinc, R.Q. = 1000 lbs.; Nitroglycerin, R.Q. = 10 lbs; Lead, R.Q. = 10 lbs. (No reporting is required if diameter of the pieces of metal is equal to or exceeds 100 micrometers (0.004 inches).				
SARA 313	Copper, Lead and Lead compounds, Nitroglycerin, Zinc (fume or dust)				
SARA 311/312	Health:	Acute - No Chronic - No	Fire: No	Reactivity: None	Release of Pressure: Yes
SARA 302 EHS List	None of the components of this product are listed.				

SECTION 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

State Right to Know Status:

COMPONENT	CALIFORNIA	NEW JERSEY	PENNSYLVANIA	MASSACHUSETTS	MICHIGAN
Iron	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Copper	Not Listed	X	X	X	X
Zinc	Not Listed	X	Not Listed	X	X
Nitrocellulose	Not Listed	X	X	X	Not Listed
Nitroglycerin	Not Listed	X	X	X	Not Listed
Lead Styphnate	X	Not Listed	Not Listed	X	Not Listed

European Regulations:

Hazard Classifications

Danger Symbols: E, T, N

Risk Phrases: R2, R48, R60, R63, R51/53

Safety Phrases: S2, S15, S20/21, S22, S39, S51, S61

German WGK Classification: Not known

Canadian Regulations:

DSL/NDSL Inventory: The components of this product are on the DSL

IDL: Copper, Lead

CEPA Priorities List: None

WHIMIS: This product is not subject to WHMIS. It is regulated as a Class 6 Explosive in Canada.

Japanese Regulations:

Existing National Inventory of Chemical Substances (ENCS): The components of this product are listed

Japanese Priority Assessment Chemical Substances: None of the components of this product are listed.

Other International Chemical Inventories:

Swiss GiftlisteList of Toxic Substances: All components listed

Australian Inventory (AICS): All components listed

SECTION 16: OTHER INFORMATION

16.1 DISCLAIMER OF LIABILITY

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