

Bluepoint Fastening Inc.

MATERIAL SAFETY DATA SHEET Date of Issue: 11/20/08 10 Pages in total

EMERGENCY PHONE: +86-15002373257 (China) 877-779-2583 or 909-827-1422 (U.S.A)

THIS MATERIALS SAFETY DATA SHEET(MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200. THIS PRODUCT MAY BE CONSIDERED TO BE A HAZARDOUS CHEMICAL UNDER THAT STANDARD. (REFER TO THE OSHA CLASSIFICATION IN SEC.I.) THIS INFORMATION IS REQUIRED TO BE DISCLOSED FOR SAFETY IN THE WORKPLACE. THE EXPOSURE TO THE COMMUNITY, IF ANY, IS QUITE DIFFERENT.

I. PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER	Bluepoint Fastening Inc. Emergency call: +86-15002373257 (China) 877-779-2583 or 909-827-1422 (U.S.A)
PRODUCT NAME	Cartridges, Power Devices
SYNONYMS	"Rimfire Cartridge for Power Device, 22, 25, 27 Caliber Powertool Round, Power Load"
CHEMICAL FAMILY	Not Applicable
FORMULA	Not Applicable
HAZARDOUS CLASSIFICATION	EXPLOSIVE UN 0323 1.4S PGII
PRODUCT USE	Powertool Loaded Round

II. HAZARDOUS IDENTIFICATION

CAUTION!

EXPLOSIVE. KEEP AWAY FROM HEAT. DO NOT SUBJECT TO MECHANICAL SHOCK. PARTICLES FROM FIRING MAY BE HARMFUL IF INHALED. DO NOT TAKE INTERNALLY.

RISK

Risk of explosion by shock friction fire

SAFETY

Avoid shock and friction or other sources of ignition.
Keep out of reach of children.

HAZARD RATINGS (for dust or fume)

Hazardous Materials Identification System (HMIS)

Degree of hazard (0 = low, 4 = extreme)

Health: 0 Flammability: 0 Physical Hazard:
Explosive: 2

National Fire Protection Association (NFPA)

Mixture. Not rated.

III. COMPONENTS DATA

Product Composition

Consists of the following four components:

Bluepoint Fastening Inc.

MATERIAL SAFETY DATA SHEET Date of Issue: 11/20/08 10 Pages in total

Component	Percent	Product
A) Shellcase	77-84%	Steel
B) Propellant	11-18%	Smokeless
C) Priming mix / Primer	2-6%	
D) Paper Wad		None hazardous product.

Additional information may be obtained from the manufacturer for any component of interest. Quote the relevant component code number if applicable.

All percent compositions specified below are based on the entire product.

A) Shellcase

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				

Bluepoint Fastening Inc.

MATERIAL SAFETY DATA SHEET Date of Issue:11/20/08 10 Pages in total

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

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	N/A	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
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Bluepoint Fastening Inc.

MATERIAL SAFETY DATA SHEET Date of Issue: 11/20/08 10 Pages in total

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	N/A	0.05
	CEILING	None	None	None	None
	STEL	None	None	None	None

IV. PRECAUTIONS FOR SAFE HANDLING AND STORAGE

DO NOT TAKE INTERNALLY. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. UPON CONTACT WITH SKIN OR EYES, WASH OFF WITH WATER.

STORAGE CONDITIONS:

STORE IN A COOL, DRY, WELL VENTILATED PLACE, AWAY FROM ANY SOURCES OF IGNITION.

AVOID SMOKING, NAKED LIGHTS.

DO NOT STORE AT TEMPERATURE ABOVE: Not Applicable.

DO NOT SUBJECT TO MECHANICAL SHOCK.

KEEP OUT OF REACH OF CHILDREN.

PRODUCT STABILITY AND COMPATIBILITY:

SHELF LIFE LIMITATIONS	20-25 years
INCOMPATIBLE MATERIALS FOR STORAGE OR TRANSPORT	Acids, Class A & B explosives and oxidizers, and Explosive hydrogen (H ₂) gas.

V. PHYSICAL DATA

APPEARANCE	Cylindrical, steel cartridge
FREEZING POINT	Not applicable
BOILING POINT	Not applicable
DECOMPOSITION TEMPERATURE	Not applicable
SPECIFIC GRAVITY	Not applicable
BULK DENSITY	Not applicable
pH @ 25° C	Not applicable
VAPOR TEMPERATURE @ 25° C	Not applicable
SOLUBILITY IN WATER	Not applicable
VOLATILES, PERCENT BY VOLUME	Not applicable
EVAPORATION RATE	Not applicable
VAPOR DENSITY	Not applicable
MOLECULAR WEIGHT	Not applicable
ODOUR	None
COEFFICIENT OF OIL/WATER DISTRIBUTION	Not applicable

Bluepoint Fastening Inc.

MATERIAL SAFETY DATA SHEET Date of Issue: 11/20/08 10 Pages in total

VI. PERSONAL PROTECTIVE EQUIPMENT REQUIREMENT

Personal Protection for Routine Use of Product:

RESPIRATORY PROTECTION	None requirement for normal handling.
VENTILATION	None beyond normal ventilation.
SKIN AND EYD PROTECTION	USE SAFETY GLASSES

Equipment Specifications (When Applicable):

RESPIRATOR TYPE	Not normally needed.
PROTECTION CLOTHING TYPE (This includes: Gloves, Boots, Apron, Protective suit)	Not normally needed.

VII. FIRE AND EXPLOSION HAZARD INFORMATION

Flammability Data:

EXPLOSIVE	Yes
FLAMMABLE	Not
COMBUSTIBLE	Not
PYROPHORIC	Not
FLASH POINT	Not applicable
AUTOIGNITION TEMPERATURE	No data
FLAMMABLE LIMITS AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE (PERCENT VOLUME IN AIR)	LEL-UEL ---Not applicable.

NFPA Ratings:

Not established

HMIS Ratings:

HEALTH	0
FLAMMABLILITY	0
REACTIVITY	4

EXTINGUISHING MEDIA:

Water spray. Note: do not fight fire, if fire reaches cargo. Use water from unmanned stations. If no water is available, carbon dioxide, sand or earth may be used.
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Fire Fighting Techniques and Comments:

See Section XI for protective equipment for fire fighting. Other: Evacuate all persons including emergency response personnel from the area for 1500 feet (1/2 mile) in all directions if fire reaches cargo

VIII. REACTIVITY INFORMATION

Conditions Under Which This Product May Be Unstable:

Bluepoint Fastening Inc.

MATERIAL SAFETY DATA SHEET Date of Issue: 11/20/08 10 Pages in total

TEMPERATURE ABOVE	No data
MECHANICAL SHOCK OR IMPACT	Yes (based on primer)
ELECTRICAL (STATIC) DISCHARGE	Yes (based on primer)
OTHER	Cartridge may be detonated if case is punctured or severely damaged.
HAZARDOUS POLYMERIZATION	Will not occur
IMCOMPATIBLE MATERIALS	Acids and caustics
HAZARDOUS DECOMPOSITION	Nitrogen oxides, carbon monoxide, carbon dioxide, lead oxides, lead dust / fume
OTHER CONDITIONS TO AVOID	Cartridges placed in a high radio frequency energy field (radar stations)

Summary of Reactivity:

EXPLOSIVE	Yes
OXIDIZER	No
PYROPHORIC	No
ORGANIC PEROXIDE	No
WATER REACTIVITY	No
IMCOMPATIBLE MATERIALS	Acids and caustics

IX. FIRST AID

Eyes:

Not a likely route of exposure as a cartridge

Skin:

Not a likely route of exposure as a cartridge

Swallowed:

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

Inhaled:

Not normally a hazard due to physical form of product.
When the product is fired, a small amount of particles may be generated which may be slightly irritating to the respiratory tract and may be harmful.

X. TOXICOLOGY AND HEALTH INFORMATION

Routes of Absorption:

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

Warning Statement and Warning Properties:

Bluepoint Fastening Inc.

MATERIAL SAFETY DATA SHEET Date of Issue:11/20/08 10 Pages in total

Particles from firing may be harmful if inhaled.

Human Threshold Response Data:

ODOUR THRESHOLD	No data
IRRITATION THRESHOLD	No data
IMMEDIATELY DANGEROUS TO LIFE OR HEALTH	The IDLH concentration has not been established for this product

Signs, Symptoms and Effects of Exposure

Inhalation:

Acute	<p>If Inhalation of the propellant is irritating to the nose, mouth, throat and lungs. Dilation of blood vessels with drop in blood pressure and headache, cyanosis and mental confusion may result from the nitroglycerin. The headache may be severe and can remain for a few hours to several days.</p> <p>It typically starts at the forehead preceded by a sensation of warmth and fullness in the head and may extend to the back of the neck. Nausea, vomiting and abdominal pain may also occur.</p>
Chronic	<p>No additional effects are known or have been reported except for those described for acute inhalation exposure.</p> <p>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.</p>

Skin:

Acute	<p>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.</p>
Chronic	<p>No additional effects are known or have been reported except for those described for acute inhalation exposure.</p> <p>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.</p>

Eye:

<p>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</p>
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Ingestion:

Acute	<p>Irritation to the gastrointestinal tract. Additional effects would be similar to those described for acute inhalation exposure.</p>
Chronic	<p>No additional effects are known or have been reported except for those described for acute inhalation exposure.</p> <p>It is judged that the physical nature of the product, the low percentage of propellant in the product,</p>

Bluepoint Fastening Inc.

MATERIAL SAFETY DATA SHEET Date of Issue: 11/20/08 10 Pages in total

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.

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 and 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.

Mutagenicity:

This product is not known or reported to be mutagenic.

Aquatic Toxicology:

No data for product. Individual components are as follows: Nitrocellulose: Fish are unaffected by nitrocellulose at concentrations of 1000 mg/l.

XI. TRANSPORTATION INFORMATION

THIS PRODUCT IS REGARDED AS A DOT HAZARDOUS MATERIAL.

Bluepoint Fastening Inc.

MATERIAL SAFETY DATA SHEET Date of Issue: 11/20/08 10 Pages in total

<i>DOT Description from Hazardous Materials Table 49 CFR 172. 101:</i>	
Land (U.S DOT)	Cartridges, power device, 1.4SUN0323,PG II
Water (IMO)	Same as land
Air (IATA/ICAO)	Same as land
Hazard Label/Placard	Explosive 1.4S
Reportable Quantity	None established
Special Comments	LAND " See 49 CFR 173.63 for ORM-D Reclassification. AIR- 25 KG. per package passenger aircraft. 100KG. Per package cargo aircraft.

XII. SPILL AND LEAKAGE INFORMATION

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC AT 1-951-656-0518.	
Reportable Quantity	nitroglycerin 10#, dibutyl phthalate 10#

Spill Mitigation Procedures:

This product represents an explosion hazard when involved in a fire or exposed to heat, friction, shock, etc. Remove all sources of ignition.	
Air Release	Not Applicable
Land Release	Not Applicable
Land Spill	Shut off all ignition sources, no flares, smoking in hazard area.

Spill Residues:

Dispose of per guidelines under Section XII, WASTE DISPOSAL.
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Personal Protection for Emergency Spill and Firefighting Situations:

No extra protection required beyond that listed in Section V (In case of fire, use normal fire fighting equipment including self-contained breathing apparatus (SCBA) A hazardous physical characteristic of this product is: Explosive.
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XIII. ECOLOGICAL INFORMATION

ECOTOXICITY: 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

Bluegill sunfish: 6 hr TLM = 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.

MOBILITY: Dissolved lead from degraded bullets may migrate through soil.

Bluepoint Fastening Inc.

MATERIAL SAFETY DATA SHEET Date of Issue: 11/20/08 10 Pages in total

PERSISTANCE/DEGRADABILITY: Not biodegradable. Bullets may fragment and decompose in soil leading to accumulation of lead.

BIOACCUMULATION: No data

XIV. WASTE DISPOSAL

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.

XV. ADDITIONAL REGULATORY STATUS INFORMATION

Toxic Substances Control Act:

Components of this product are listed on the Toxic Substance Control Act inventory.

California Safe Drinking Water and Toxic Enforcement Act 1986 Proposition 65:

"WARNING: This product contains detectable amounts of a chemical(s) known to the State of California to cause cancer and/or birth defects or other reproductive harm."

Superfund Amendments and Reauthorization Act Title III:

HAZARD CATEGORIES, PER 40 CFR 370.2:

HEALTH: None

PHYSICAL: Sudden release of pressure

Supplier Notification Requirements Per 40 CFR 370.2

None established

Emergency Planning and Community Right to Know Per 40 CFR 355 APP. A:

Hazardous Substance - Threshold Planning Quantity: None Established.

XVI. ADDITIONAL INFORMATION

MSDS REVISION STATUS: New format and grouping. Address and phone number revised.

Bluepoint Fastening Inc.

MATERIAL SAFETY DATA SHEET Date of Issue: 11/20/08 10 Pages in total

THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. WE BELIEVE THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION, BUT MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT US AT THE PHONE NUMBER BELOW TO MAKE CERTAIN THAT THIS SHEET IS CURRENT.

Bluepoint Fastening Inc.

www.bpfasteners.com