SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: WEJTAP POWER BOOSTER

Product Description: This product is composed of a finished metal alloy cartridge base with plastic shell, contains various components of Pyrotechnic Mixture which are completely sealed within.

Intended Use: Power tool Loaded Round, Rimfire Cartridge for Power Device, .27 Caliber Power tool Round, Power Load, Blank Power Load and/or Booster, Powder Load

COMPANY IDENTIFICATION

Supplier: **BURNDY LLC**
47 East Industrial
Park Drive
Manchester, NH 03109 USA

24 Hour Emergency (INFOTRAC) (800) 535-5053 *(US and Canada)*
(352) 323-3500 *(International)*
Burndy Informational Number (603) 647-5000

SECTION 2 HAZARDS IDENTIFICATION

CAUTION

Cartridge is explosive. Keep away from Heat. Do not subject to Mechanical Shock. Particles from firing may be harmful if inhaled. Do not take internally. The explosive user is dealing with a powerful force, various devices and methods have been developed to assist the user in directing this force. User should realize that this force, if misdirected, or misused can be fatal or can cause serious personal injury and property damages.

WARNING

All explosives are dangerous and must be carefully handled and used following approved safety procedures either by or under the direction of competent, experienced persons in accordance with all applicable federal, state and local laws, regulations or ordinances. If you have any questions on how to use any explosive product, DO NOT USE IT before consulting with your supervisor. Your supervisor can consult the manufacturer before use, in case of any questions or clarifications.

CLASSIFICATION

Health	Environmental	Physical
Eye Irritation - Category 2B Skin Irritation - Category 3 Carcinogenicity - Category 2 Respiratory Tract Irritation Respiratory Sensitization	Acute toxicity - Category 2 Chronic Toxicity - Category 2	Flammable solids – Category 1

LABELLING

Symbols:


Explosive


Environment Hazard


Irritation


Flammable solid


Health Hazard

Signal Word: Explosive, Danger

Hazard Statements	***Precautionary Statements***
H200: Unstable explosives. H201: Explosive; mass explosion hazard. H204: Fire or projection hazard. H272: May intensify fire; oxidizer. H301: Toxic if swallowed. H302: Harmful if swallowed. H312: Harmful in contact with skin. H315: Causes skin irritation. H319: Causes serious eye irritation. H332: Harmful if inhaled. H410: Very toxic to aquatic life with long lasting effects H 351: Suspected of causing cancer **Risk Phrase:** R2: Risk of explosion by shock, friction, fire or other sources of ignition. R20/21: Harmful by inhalation and in contact with skin. R25: Toxic if swallowed. **Safety Phrases:** S2: Keep out of the reach of children. S13: Keep away from food, drink and animal feeding stuffs. S16: Keep away from sources of ignition - No smoking. S23: Do not breathe fumes. S24/25: Avoid contact with skin and eyes. S34: Avoid shock or friction. S35: This material and its container must be disposed of in a safe way. S36/39: Wear suitable protective clothing and eye/face protection. S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).	P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat, sparks, open flame, hot surfaces - No smoking. P 232: Protect from moisture P240: Ground/bond container and receiving equipment. P250: Do not subject to grinding/shock/friction. P280: Wear protective gloves/protective clothing/eye protection/face protection. P261: Avoid breathing dust / fume / gas / mist/vapours/spray. P270: Do not eat, drink or smoke when using this product. P 273: Avoid release to the environment P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P301 + P310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305: IF IN EYES: Get immediate medical attention. P501: Dispose of contents/container to: Send to a licensed recycler, reclaimer or incinerator.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

Name	Common Name/Synonym	CAS#	Percentage	Impurities	Risk Phrase
Cell					Refer Section 15
Iron	Iron	7439-89-6	0 – 97	None Known	
Copper	Copper	7440-50-8	50 - 65	None Known	
Zinc	Zinc	7440-66-6	15 - 32	None Known	
Nitrocellulose	Nitrocellulose	9004-70-0	7-13	None Known	
Nitroglycerin	Nitroglycerin	55-63-0	0.5 – 2	None Known	
Normal Lead styphnate	Normal Lead styphnate	15245-44-0	0.1 – 1	None Known	
Bushing					
Titanium dioxide	Titanium dioxide	13463-67-7	1 – 5	None Known	
Tetrahydrofuran	Tetrahydrofuran	109-99-9	0.1- 1.0	None Known	
Case & Piston					
Polyamide Resin	Polyamide (PA6)	25038-54-4	60 - 100	None Known	

*Remaining % of material composition inclusive of inert and non-hazardous filler withheld as trade secret in accordance with paragraph 1910.1200(i)(1).

NOTE: All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

** A dangerous situation with a high risk of explosion can result when explosives of hazard classification such as cartridges are confined (e.g. in a lined metal box) and exposed to fire. It should be stored inside a cardboard or wooden box, which will burn in the event of a fire and allow gases to be released to atmosphere.

SECTION 4 FIRST AID MEASURES

This product is composed of a finished metal alloy cartridge which contains various components completely sealed within. Therefore, under normal handling of this product, no exposure to any harmful materials will occur.

ROUTES OF ENTRY: When the product is fired, a small amount of particles may be generated which may be slightly irritating to the eyes and the respiratory tract. The particles may contain trace amounts of these harmful substances.

The physical nature of this product makes absorption from any route unlikely. A small amount of inhalable particles may be created when cartridge is fired. The hazards associated with harmful substances are noted here.

Copper: Inhalation of high concentrations of metallic copper dusts or fumes may cause nasal irritation and/or nausea, vomiting and stomach pain.

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).

Lead: Ingestion of large amounts of lead can cause abdominal pain, constipation, cramps, nausea and/or vomiting. Chronic exposure to lead can cause kidney damage, anemia, reproductive effects, developmental effects and permanent nervous system damage in humans including changes in cognitive function. It is unlikely that the amount of particles that someone would be exposed to from firing would be sufficient to cause any of these effects.

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation: The finished product is not likely to be hazardous by inhalation under normal conditions although chemical fumes can be generated during heating or combustion of product. Metal oxide fumes can cause metal fume fever. If exposed to excessive levels of fumes or dust may cause respiratory tract irritation, remove to fresh air. Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. Get medical attention if cough or other symptoms develop.

Eye Contact: Product contains abrasive particulates. Direct contact can cause eye irritation. Irrigate eyes with low pressure water for at least 15 minutes, including under the eyelids. If irritation, swelling, or redness persists seek medical attention. Serious complications may occur by contact as the result of an explosion of the item in the vicinity of a person.

Skin Contact: Product contains pyrotechnic mixtures which may be irritating or corrosive to the skin. For skin contact wipe product off of skin, wash area thoroughly with soap and water. Remove contaminated shoes or clothing if necessary. Get medical help if irritation continues.

Ingestion: Product contains pyrotechnic mixtures which may cause gastric distress, stomach pains, vomiting, and diarrhea. Do not induce vomiting. Contact poison control and seek medical help. Never give anything by mouth to an unconscious victim.

Precautions: Processing fumes inhalation may be irritating to the respiratory tract. If symptoms are experienced remove victim from the source of contamination or move victim to fresh air and obtain medical advice.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Water, if fire reaches cargo, do not fight fire, try to prevent fire from reaching cargo, flood with water. If a large amount of cartridge devices are involved, allow them to burn while preventing spread of fire.

Inappropriate Extinguishing Media: Suffocation methods, cartridge devices contain their own oxygen. Carbon dioxide and dry chemical are not recommended because their lack of cooling capacity may permit re-ignition.

FIRE FIGHTING

Fire Fighting Instructions: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Evacuate all persons, including emergency responders from the area for at least 1,500 feet in all directions. Evacuate occupants in surrounding buildings and downwind areas if fire reaches cargo or storage area. Cartridges are explosive in the event of fire. Cartridge fire is rapid and can be fatal if misused. In case of vehicle cargo fire, firefighters should retreat and use unmanned hose holder to direct water spray on fire. For truck fire not involving cargo area, disconnect cargo trailer if possible without risk. All non-emergency personnel should be immediately removed from the area. Fight fire remotely due to the risk of explosion.

DO NOT fight fire when fire reaches explosives. Do not attempt to directly fight established or slow smoldering fires as an explosion is possible. In case of fire, evacuate area.

Unusual Fire Hazards/Combustible Products: Closed containers may explode. Fire produces dense smoke and airborne metal particles and toxic fumes. Product can deflagrate or explode when exposed to heat. Product may release carbon monoxide and other hazardous gases and metal fume when burned.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS AND EMERGENCY PROCEDURES - Refer Section 8 for details

Steps to be taken if material is released or spilled: Evacuate all non-essential personnel. Remove all sources of ignition. This Product does represent an explosion hazard when involved in a fire or exposed to heat or friction, electrostatic discharge, shock, etc. See Section 5 for firefighting information. See Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice.

No smoking or open flames should be allowed in the vicinity of the storage spilled material. Carefully pick up and place spilled items in cardboard fiber cartons. Make sure to remove all ignition sources arising from impact, friction, ES discharge and any heat sources.

Personal Protection Equipment (PPE)

Respirators Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely.
Eye Protection Safety glasses.
Gloves Wear protective gloves.
Body protection Wear suitable protective clothing and gloves.
Engineering Controls Consult the supplier

ENVIRONMENTAL PRECAUTIONS

The cartridge contains pyrotechnic mixture and other metal particles.

Prevent entry into waterways, sewer, basements or confined areas. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations may require reporting releases of this material to the environment that exceed the applicable reportable quantity which could reach any waterway including intermittent dry creeks.

CLEAN UP AND CONTAINMENT METHODS

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop spill if you can do it without risk. Do not touch or walk through spilled material. Avoid direct contact and wear specific protective equipment specified in section 8. Trained emergency crew should collect and transfer material to earth grounded containers. Prevent entry into waterways, sewer, basements or

confined areas.

Water Spill: Use caution as metal particles in the cartridge may release hydrogen when in contact with water. Stop spill if you can do it without risk. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this product; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted.

SECTION 7 HANDLING AND STORAGE

Handling Procedures and Equipment

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. Empty containers may contain residue. Product residue may be combustible, but will not readily burn. Read product label for additional information. 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.

Storage Requirements

Store in accordance with local/regional/national/international regulations and standard codes.
Store in a cool, well-ventilated area with the lid tightly sealed when not in use. Keep away from heat and direct sunlight. Keep away from children. Ensure good ventilation/exhaustion at the workplace. Keep ignition sources away - Do not smoke. Prevent impact and friction. Store in a cool (+5°C to +25°C), dry and dark place only in the original packaging. Protect from dampness and humidity. Protect from heat and direct sunlight.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Component Name	CAS #	TWA/STEL	OSHA	ACGIH	Note
Cell					
Copper	7440-50-8	TWA	0.1 mg/m^3 (fume) 1 mg/m^3 (dusts and mists)	0.2 mg/m^3 (fume), 1mg/m^3 (dusts and mists)	N/A
Zinc	7440-66-6	TWA	None established	None established	N/A
Nitrocellulose	9004-70-0	TWA	None established	None established	N/A
Nitroglycerin	55-63-0	TWA	Ceiling - 0.2 ppm (2 mg/m^3) Skin	0.05 ppm (0.46 mg/m^3) Skin	N/A
Lead Styphnate	15245-44-0	TWA	None established	None established	N/A
Bushing					
Titanium dioxide	13463-67-7	TWA	10 mg/m^3 Total dust.	10 mg/m^3	N/A
Tetrahydrofuran	109-99-9	TWA	590 mg/m3 200 ppm	TWA: 50 ppm Skin	N/A
Case & Piston					
Capcrolactam	105-60-2	TWA	N/A	5 mg/m^3	Inhalable fraction and vapor

ENGINEERING CONTROLS

General and/or local exhaust ventilation is recommended to maintain air quality and keep airborne exposures as per recommended occupational exposure limits. Eyewash stations and washing facilities should be located at work operations where the product is used.

PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: Respiratory protection is not expected to be required under normal usage of this material. A NIOSH approved respirator is recommended in situations where airborne contaminant concentration has not been confirmed to be below safe levels. When using this product at elevated temperatures, implement engineering systems, administrative controls or a respiratory protection program (including a respirator approved for protection from organic vapors, acid gases and particulate matter) if processing fumes are not adequately controlled or operators experience symptoms of overexposure.

Skin Protection: No protection is ordinarily required under normal conditions of use. If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: Under normal expected conditions, safety glasses with side shields are appropriate. In instances where contact is more likely to occur, chemical goggles or a full face shield is recommended.

Skin and Body Protection: No protection is ordinarily required under normal conditions of use. If prolonged or repeated contact is likely, chemical and oil resistant clothing is recommended.

Hand Protection: Protective gloves

Specific Hygiene Measures: 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. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9 PHYSICAL/CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Solid, article containing pyrotechnic mixtures
Appearance: Cylindrical
Odor: None
Odor Threshold: Not Applicable

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Flash Point [Method]: Not Applicable, explosive
> 400 °C (closed cup), for Nylon casing & piston
Flammable Limits (Approximate volume % in air): Not Volatile - Not Applicable

Auto ignition Temperature: Not determined
360°C (680°F) estimated for plastic bushing
Flammability: Pyrotechnic mixture inside cartridges is Readily Flammable
Decomposition Temperature: Not Applicable
Boiling Point/Range: Not Applicable
Melting/Freezing Point: Not Applicable
This product does not exhibit a sharp melting point but softens gradually over a wide range of temperatures for bushing and approx. 220 deg C for Nylon casing & piston
Danger of decomposition/explosion: Extreme risk of explosion by shock, friction, fire or other sources of ignition
Vapor Pressure: Not Applicable
Vapor Density (Air=1): Not Applicable
Solubility in Water (20 deg C): Insoluble
Specific Gravity (g/cc): Not Applicable
> 1 for plastic bushing
Volatiles, % by volume: Not Available
Evaporation Rate: Not Available
Viscosity (cps): Not Available
Partition Coefficient (n-Octanol/Water): Not Available
PH: Not Available
Pour Point: Not Available
Molecular Weight: Not Available
Molecular Formula: Mixture

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable under normal storage conditions.

CONDITIONS TO AVOID: Excessive heat, direct contact with flames, contact with incompatible materials, moisture.

MATERIALS TO AVOID: Oxidizing materials, keep all ignition sources away.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, nitrogen and sulfur, hydrocarbons, metallic fumes or vapors, and smoke may be produced.

Possible thermal decomposition products in nylon casing & piston are hydrogen cyanide, carbon monoxide, ammonia. In case of plastic bushing, processing fumes emitted at recommended processing conditions may include trace levels of hydrocarbon fragments, tetrahydrofuran (THF), aliphatic aldehydes.

POSSIBILITY OF HAZARDOUS REACTIONS: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Metal fumes and oxides. Thermal decomposition will emit toxic, irritant and flammable vapors.

OTHER: Cartridge may detonate if case is punctured or severely damaged

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY VALUES

Ingredient	LD_{50}/LC_{50} Route and Species	Remarks
Cell		
Lead		
Copper		
Zinc (dust and fume)	LD_{50}: 630 mg/kg, Rat Oral	LDL_0: 388 mg/kg, Duck Oral
Nitrocellulose	LD_{50}: >5000 mg/kg, Rat Oral	NA
Nitroglycerin	LD_{50}: 105 mg/kg, Rat Oral	LC_{50}: 29.2 mg/kg, Rat Dermal
Normal lead styphnate		
Bushing		
	LD_{50}: >5000 mg/kg, Rat Oral	
	LD_{50}: >2000 mg/kg, Rabbit	

LDLo = Lowest Lethal Dose. Exposure caused autonomic nervous system dysfunction and affected white blood cell counts

ACUTE EFFECTS

Eye Contact: Direct contact with product can cause eye irritation

Skin Contact: Prolonged contact may lead mild skin irritation, folliculitis, oil acne, and dermatitis.

Inhalation: Breathing vapors, mists, or fumes may cause irritation to respiratory tract, especially if product has been heated. Inhalation of metal oxides may cause metal fume fever. Processing fumes emitted from plastic bushing at recommended processing conditions may contain trace amounts of tetrahydrofuran (typically less than 1 ppm). NTP has listed tetrahydrofuran as a carcinogen. Extreme processing conditions or temperatures may result in higher levels.

Ingestion: May cause gastric distress, stomach pains, vomiting, and diarrhea.

Target Organ Effects: Skin Dermatitis, Irritation.

Medical Conditions aggravated by Exposure: Pre-existing skin, eye or respiratory disorders may get aggravated through prolonged exposure.

CHRONIC/OTHER EFFECTS

Lead has caused blood, kidney and nervous system damage in laboratory animals. This product is not known or reported to be mutagenic. Lead has been shown to be mutagenic in several in vitro assays. This product is not known or reported to cause reproductive or developmental effects. Lead has been shown to affect fetal development including birth defects and reduced male reproductive function in laboratory animals. This product is not known or reported to cause neurological effects. Lead has caused peripheral and central nervous system damage and behavioural effects in laboratory animals.
Gastritis, Nephritis and oliguria have been reported from exposure to zinc. Inhalation fumes can cause metal fume fever, characterized by fever, chills, malaise, headache, cough, and abdominal discomfort. Effects typically last for 24-48 hours usually without long term reported effects. Chronic zinc exposure may cause sideroblastic anemia. Adverse reproductive effects have not been reported, but testicular tumors were found in laboratory rats injected with zinc.

NTP: Tetrahydrofuran in plastic bushing, in 2-year carcinogenicity bioassays conducted by the National Toxicology Program (NTP), mice and rats (50/sex/group) were exposed to concentrations of 0, 200, 600, or 1,800 ppm via inhalation 6 hours/day, 5 days/week for 104 weeks. Under the conditions of these 2-year inhalation studies, there was some evidence of carcinogenic activity of tetrahydrofuran in male F344/N rats based on increased incidences of renal tubule adenoma or carcinoma (combined) at 600 and 1,800 ppm. There was no evidence of carcinogenic activity of tetrahydrofuran in female F344/N rats exposed to 200, 600, or 1,800 ppm or male B6C3F1 mice exposed to 200, 600, or 1,800 ppm. There was clear evidence of carcinogenic activity of tetrahydrofuran in female B6C3F1 mice based on increased incidences of hepatocellular neoplasms observed at 1,800 ppm.

Titanium Dioxide in plastic bushing: The International Agency for Research on Cancer (IARC) has determined titanium dioxide to be a possible human carcinogen (class 2B) based on evidence in experimental animals. Rats exposed to high doses of titanium dioxide by inhalation or intratracheal installation showed an increased incidence of lung tumors.

Additional information may be available by request.

Carcinogenicity: IARC: Group 2B (lead), Titanium dioxide (class 2B)

SECTION 12 ECOLOGICAL INFORMATION

Generally not hazardous for water. Do not allow product to reach ground water, water bodies or sewage system. Harmful to aquatic organisms.

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Ingredient	LC_{50} and Species	Conclusion / Remarks
Copper	Copper concentrations varying from 0.1 to 1.0 mg/l have been found by various investigators to be not toxic for most fish 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	
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	The presence of copper appears to have a synergistic effect on the toxicity of zinc towards fish
Nitrocellulose	LC50 > 1000 mg/l (fish, invertebrates, algae)	
Nitroglycerin	Bluegill, 96 hour LC50 = 1.228 mg/l (static)	
Lead	LC 50 (48 hrs.) to bluegill (Lepomis macrochirus) is reported to be 2-5 mg/l. Lead is toxic to waterfowl	

Environmental Fate

There is limited data for the product ingredients. Mobility in soil is affected by the pH. There is no evidence that components will bio transform in aquatic environments. Data suggests there is low potential for bioaccumulation in aquatic environments.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable local, state and federal laws and regulations, and material characteristics at the time of disposal.

DISPOSAL RECOMMENDATIONS

Completely immerse product in water then dispose of in accordance with local, state, and federal regulations. Do not discard items into any publicly accessible container. Refer to 40 CFR 260 - 299 for complete waste disposal regulations. Consult your local, state, or federal agency before disposing of any chemicals.

REGULATORY DISPOSAL INFORMATION

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-List: None listed
RCRA U-List: None listed

SECTION 14 TRANSPORTATION

Regulatory Information	UN Number	Proper Shipping Name	Hazard Class	Packing Group	Label(s)	RQ	Additional Information
US DOT	UN0323	Cartridges, power device	1.4S	II		Not Applicable	LAND - See 49 CFR 173.63 for ORM-D Reclassification AIR - 25 KG. per package passenger aircraft 100 KG. Per package cargo aircraft Explosive 1.4 S/1.4 Placard over 1001 lbs. (454 kg)
TDG	UN0323	Cartridges, power device	1.4S	II		Not Applicable	
ADR	UN0323	Cartridges, power device	1.4S	II		Not Applicable	
IATA	UN0323	Cartridges, power device	1.4S	II		Not Applicable	
IMDG	UN0323	Cartridges, power device	1.4S	II		Not Applicable	

SECTION 15 REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

TSCA (Toxic Substance Control Act)

All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.

SARA 313 Reportable Ingredients:

Copper, Zinc (fume or dust), Nitroglycerin, Lead and lead compounds

Hazard Class: Not Acute, Chronic & Fire hazard. Reactivity- None, Release of Pressure-Yes

CERCLA (Comprehensive Response Compensation and Liability Act):

Copper, R.Q. = 5000 lbs.; Zinc, R.Q. = 1000 lbs.; Nitroglycerin, 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).

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986:

WARNING: There is a reportable chemical present (Lead Styphnate) known to the state of California to cause cancer and/or birth defects or other reproductive toxicity.

Also below components in plastic bushing known to the State of California to cause cancer and/or reproductive effects, are listed below:

Chemical Name	Weight %	California Proposition 65:
4-Vinylcyclohexene 100-40-3	<100 ppm	Listed: May1, 1996 Carcinogenic.
Carbon black 1333-86-4	<100 ppm	Listed: February 21, 2003 Carcinogenic. (airborne, unbound particles of respirable size)
Nickel-cobalt-zinc-aluminum oxide spinel 68186-85-6	<100 ppm	Listed: May 7, 2004 Carcinogenic. (as nickel compounds)

INTERNATIONAL REGULATIONS: WHMIS

CLASSIFICATION: Class D2B: Skin/Eye Irritant

WHMIS HAZARD SYMBOLS

IDL (Canadian Ingredient Disclosure List): Copper

DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)

The components of this product are on the DSL or are exempt from reporting under the New Substances Notification Regulations.

Canada:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

CLEAN WATER ACT/OIL POLLUTION ACT: This product contains zinc and is subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.

EUROPEAN INVENTORY OF EXISTING CHEMICALS (EINECS):

Chemical Name	CAS Number	EINECS Number	R-Phrase
Lead	7439-92-1		R 15, R 21/22, R 36, R 51/53
Copper	7440-50-8		
Zinc	7440-66-6	231-175-3	
Nitrocellulose	9004-70-0		
Nitroglycerin	0055-63-0		
Normal lead styphnate	15245-44-0		

EU RISK (R) AND SAFETY (S) PHRASES:

Danger Symbol: E Explosive
Risk phrases: R2 Risk of explosion by shock, friction, fire or other sources of ignition
Safety Phrases: S2 Keep out of reach of children
R 15: Contact with water liberates flammable gas
R 21/22: Harmful in contact with skin or if swallowed.
R 36: Irritating to the eyes.
R 51/53: Toxic to aquatic organisms, may cause long term adverse effects in aquatic environment
S 24/25: Avoid contact with skin and eyes.
S 36/37: Wear suitable gloves and eye/face protection
S 29: Avoid release to the environment

German WGK Classification: Not known

SECTION 16 OTHER INFORMATION

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Health - 1 Flammability - 1 Reactivity - 1

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) RATINGS:

Health - 1 Flammability - 1 Physical Hazard – Explosive: 2 PPE-B

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Date	Description	Sections Affected
11/19/12	SDS Version written	1-16
07/22/13	Update	1,2,5,6,7,8,10 & 11
08/24/15	Update	1-16