

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations 00/23/2010 _ ~f :.

Date	ot	issue:	09/23/20	1	9

Revision date: FFBE /2020 Version: H.0

SECTION 1: Identification	
.1. Identification	
Product form	: Article
Product name	: Centerfire Ammunition; Pistol & Revolver and Rifle; with Alternative (copper) Bullets
Synonyms	: HTP (High Terminal Performance) Copper / Hog Hammer®
2. Recommended use and restriction	ons on use
Recommended use	: Ammunition
Restrictions on use	: Uses other than listed on the manufacturer product label
I.3. Supplier	
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2592 AR Hwy 15N	
Lonoke, AR 72086	
T 1-800-635-7656	
.4. Emergency telephone number	
Emergency number	: CHEMTREC 1-800-424-9300 (Inside US), 01-703-527-3887 (Outside the US) Day or night
(Transportation Incidents Only)	
SECTION 2: Hazard(s) identificati	
2.1. Classification of the substance of	or mixture
GHS US classification	
Expl. 1.4 H204	Fire or projection hazard
Full text of hazard classes and H-statements	: see section 16
.2. GHS Label elements, including p	
2.2. GHS Label elements, including p GHS US labeling	necaulionaly statements
Hazard pictograms (GHS US)	
Signal word (GHS US)	: Warning
Hazard statements (GHS US)	: H204 - Fire or projection hazard
Precautionary statements (GHS US)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No
	smoking.
	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.
	P370+P380 - In case of fire: Evacuate area.
	P372 - Explosion risk in case of fire.
	P373 - DO NOT fight fire when fire reaches explosives. P374 - Fight fire with normal precautions from a reasonable distance.
	P401 - Store in accordance with local regulations on explosives.
	P501 - Dispose of contents/container to hazardous or special waste collection point, in
	accordance with local, regional, national and/or international regulation.
	accordance with local, regional, national and/or international regulation.
2.3. Other hazards which do not result Other hazards not contributing to the classification	accordance with local, regional, national and/or international regulation.

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Copper	(CAS-No.) 7440-50-8	65 - 90	Not classified
Zinc	(CAS-No.) 7440-66-6	8 - 20	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Nitrocellulose	(CAS-No.) 9004-70-0	1 - 15	Expl. 1.1, H201
Nitroglycerin	(CAS-No.) 55-63-0	0 - 3	Unst. Expl, H200 Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Acute Tox. 2 (Inhalation:dust,mist), H330 STOT RE 2, H373 Aquatic Chronic 2, H411
Urea, N,N'-diethyl-N,N'-diphenyl-	(CAS-No.) 85-98-3	0 - 1.5	Acute Tox. 4 (Oral), H302 Aquatic Chronic 3, H412
Dibutyl phthalate	(CAS-No.) 84-74-2	0 - 0.75	Repr. 1B, H360 Aquatic Acute 1, H400
2,4-Dinitrotoluene	(CAS-No.) 121-14-2	0 - 0.75	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist), H331 Muta. 2, H341 Carc. 1B, H350 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures	
4.1. Description of first aid measures	
First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.
4.2. Most important symptoms and effects	(acute and delayed)
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
4.3. Immediate medical attention and spec	ial treatment, if necessary
Not applicable.	
SECTION 5: Fire-fighting measures	
5.1. Suitable (and unsuitable) extinguishin	g media
Suitable extinguishing media	: Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Not determined.
5.2. Specific hazards arising from the cher	nical
Explosion hazard	: Explosion risk in case of fire.
5.3. Special protective equipment and pred	cautions for fire-fighters
Firefighting instructions	: Evacuate area. Do not fight fire when fire reaches explosives. Fight fire with normal precautions from a reasonable distance.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release measu	ires
6.1. Personal precautions, protective equi	pment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: No open flames, no sparks, and no smoking. Evacuate unnecessary personnel.

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6.1.2. For emergency responders Protective equipment :	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for containment an	
Methods for cleaning up :	Notify authorities if product enters sewers or public waters. In case of large spillages: Shovel or sweep up and put in a closed container for disposal. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal.
Other information :	Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to section 13.	
SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
	Ensure good ventilation of the work station. Keen swey from heat, but surfaces, sharks, and
Precautions for safe handling :	Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Do not subject to grinding, shock, friction. Wear personal protective equipment.
Hygiene measures :	Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including an	
	Ground/bond container and receiving equipment.
Storage conditions :	Store in a well-ventilated place. Keep cool.
	l unata attau
SECTION 8: Exposure controls/persona	protection
8.1. Control parameters	
Centerfire Ammunition; Pistol & Revolver and I	Rifle; with Alternative (copper) Bullets
No additional information available	
Copper (7440-50-8)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (mg/m³)	0.2 mg/m ³ (fume) 1 mg/m ³ (dust and mist)
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) (mg/m³)	0.1 mg/m ³ (fume) 1 mg/m ³ (dust and mist)
Zinc (7440-66-6)	
No additional information available	
Iron (7439-89-6)	
No additional information available	
Nitrocellulose (9004-70-0)	
No additional information available	
Nitroglycerin (55-63-0)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (ppm)	0.05 ppm
ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (Ceiling) (mg/m ³)	2 mg/m ³
OSHA PEL (Ceiling) (ppm)	0.2 ppm
Limit value category (OSHA)	prevent or reduce skin absorption
Dibutyl phthalate (84-74-2)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (mg/m ³)	5 mg/m ³

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USA - OSHA - Occupational Exposure Limits		
OSHA PEL (TWA) (mg/m ³)	5 mg/m³	
Urea, N,N'-diethyl-N,N'-diphenyl- (85-98-3)		
No additional information available		
2,4-Dinitrotoluene (121-14-2)		
No additional information available		

station.

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical	properties
9.1. Information on basic physical and o	chemical properties
Physical state	: Solid
Appearance	: Solid.
Color	: Metallic
Odor	: odorless
Odor threshold	: No data available
рН	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: Not applicable
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

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9.2. Other information

No additional information available

SECT	ION 10: Stability and reactivity
10.1.	Reactivity
Fire or p	projection hazard.
10.2.	Chemical stability
Stable u	inder normal conditions.
10.3.	Possibility of hazardous reactions
No dang	gerous reactions known under normal conditions of use.
10.4.	Conditions to avoid
Avoid co	ontact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
10.5.	Incompatible materials
No addi	tional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. On combustion, forms: carbon oxides (CO and CO2).

SECTION 11: Toxicological information	1
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified.
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Not classified.
Zinc (7440-66-6)	
LD50 oral rat	630 mg/kg
ATE US (oral)	630 mg/kg body weight
Nitrocellulose (9004-70-0)	
LD50 oral rat	> 5 g/kg
Nitroglycerin (55-63-0)	
LD50 oral rat	100 mg/kg
LD50 dermal rabbit	> 280 mg/kg
ATE US (oral)	5 mg/kg body weight
ATE US (dermal)	5 mg/kg body weight
ATE US (dust, mist)	0.05 mg/l/4h
Dibutyl phthalate (84-74-2)	
LD50 oral rat	7499 mg/kg
LD50 dermal rabbit	> 20000 mg/kg
LC50 inhalation rat (mg/l)	>= 15.68 mg/l/4h
ATE US (oral)	7499 mg/kg body weight
Urea, N,N'-diethyl-N,N'-diphenyl- (85-98-3)	
LD50 oral rat	2750 mg/kg
ATE US (oral)	500 mg/kg body weight
2,4-Dinitrotoluene (121-14-2)	
LD50 oral rat	268 mg/kg
LD50 dermal rat	> 2500 mg/kg
ATE US (oral)	268 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (dust, mist)	0.5 mg/l/4h
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified

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Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

2,4-Dinitrotoluene (121-14-2)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity
In OSHA Hazard Communication Carcinogen list	Yes
Reproductive toxicity	: Not classified.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified.
Nitroglycerin (55-63-0)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
2,4-Dinitrotoluene (121-14-2)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
SECTION 12: Ecological information	
2.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Copper (7440-50-8)	
LC50 fish 1	0.0068 - 0.0156 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50 Daphnia 1	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 2	< 0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
	< 0.5 mg/ (Exposure time: 50 m - Species: 1 mephales prometas [static])
Zinc (7440-66-6)	
Zinc (7440-66-6) LC50 fish 1	2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 1	2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 1 EC50 Daphnia 1 LC50 fish 2	2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 Nitroglycerin (55-63-0)	 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static])
LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 Nitroglycerin (55-63-0) LC50 fish 1	 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static]) 0.87 - 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 Nitroglycerin (55-63-0) LC50 fish 1 EC50 Daphnia 1	 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static]) 0.87 - 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]) 46 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 Nitroglycerin (55-63-0) LC50 fish 1 EC50 Daphnia 1 LC50 fish 2	 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static]) 0.87 - 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]) 46 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna) 0.87 - 2.21 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 Nitroglycerin (55-63-0) LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 2	 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static]) 0.87 - 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]) 46 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 1EC50 Daphnia 1LC50 fish 2Nitroglycerin (55-63-0)LC50 fish 1EC50 Daphnia 1LC50 fish 2EC50 Daphnia 2Dibutyl phthalate (84-74-2)	 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static]) 0.87 - 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]) 46 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna) 0.87 - 2.21 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) 38 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 Nitroglycerin (55-63-0) LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 1 LC50 fish 1	 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static]) 0.87 - 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]) 46 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna) 0.87 - 2.21 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) 38 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.71 - 1.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 Nitroglycerin (55-63-0) LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 1 LC50 fish 1 EC50 Daphnia 1 LC50 fish 1 EC50 Daphnia 1 LC50 fish 1 EC50 Daphnia 1	 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static]) 0.87 - 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]) 46 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna) 0.87 - 2.21 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) 38 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.71 - 1.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 2.99 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 Nitroglycerin (55-63-0) LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 2 Dibutyl phthalate (84-74-2) LC50 fish 1 EC50 Daphnia 1 LC50 fish 2	 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static]) 0.87 - 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]) 46 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna) 0.87 - 2.21 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) 38 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.71 - 1.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 2.99 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.31 - 5.45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 Nitroglycerin (55-63-0) LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 2 Dibutyl phthalate (84-74-2) LC50 fish 1 EC50 Daphnia 2 Dibutyl phthalate (84-74-2) LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 2	 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static]) 0.87 - 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]) 46 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna) 0.87 - 2.21 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) 38 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.71 - 1.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 2.99 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 Nitroglycerin (55-63-0) LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 2 Dibutyl phthalate (84-74-2) LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 2 Z,4-Dinitrotoluene (121-14-2)	 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static]) 0.87 - 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]) 46 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna) 0.87 - 2.21 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) 38 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.71 - 1.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 2.99 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.31 - 5.45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) 3.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 Nitroglycerin (55-63-0) LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 2 Dibutyl phthalate (84-74-2) LC50 fish 1 EC50 Daphnia 2 Dibutyl phthalate (84-74-2) LC50 fish 1 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 1 LC50 fish 2 EC50 Daphnia 2	 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static]) 0.87 - 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]) 46 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna) 0.87 - 2.21 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) 38 - 55 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.71 - 1.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) 2.99 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) 0.31 - 5.45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

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2,4-Dinitrotoluene (121-14-2)		
LC50 fish 2	27.3 - 38 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])	
NOEC (acute)	316 mg/kg (Exposure time: 14 Days - Species: Eisenia foetida [soil dry weight])	
12.2. Persistence and degradability		
Centerfire Ammunition; Pistol & Revolver and Rifle; with Alternative (copper) Bullets		
Persistence and degradability	Not established.	

12.3. Bioaccumulative potential

Bioaccumulative potential	Not established.	
Dibutyl phthalate (84-74-2)		
Log Pow	5.38 (at 25 °C)	
2,4-Dinitrotoluene (121-14-2)		
BCF fish 1	4 - 78	
Log Pow	1.98	
4. Mobility in soil		

12.5. Other adverse effects

Effect on global warming

Ecology - soil

Not established

Not established.

SECTION 13: Disposal considerations	3
13.1. Disposal methods	
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
SECTION 14: Transport information	
Department of Transportation (DOT)	
In accordance with DOT	
Transport document description	: UN0012 Cartridges, small arms, 1.4S
UN-No.(DOT)	: UN0012
Proper Shipping Name (DOT)	: Cartridges, small arms
Class (DOT)	: 1.4 - Class 1.4 - Explosives (with no significant blast hazard) 49 CFR 173.50
Packing group (DOT)	: None
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 62
DOT Packaging Bulk (49 CFR 173.xxx)	: None
DOT Packaging Exceptions (49 CFR 173.xxx)	: 63
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 25 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 100 kg
DOT Vessel Stowage Other	: 25 - Protected from sources of heat
Other information	: No supplementary information available.

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Transport by sea

Transport document description (IMDG)	: UN 0012 CARTRIDGES, SMALL ARMS, 1.4
UN-No. (IMDG)	: 0012
Proper Shipping Name (IMDG)	: CARTRIDGES, SMALL ARMS
Class (IMDG)	: 1 - Explosives
Limited quantities (IMDG)	: 5 kg
Air transport	
Transport document description (IATA)	: UN 0012 Cartridges, small arms, 1.4S
Transport document description (IATA) UN-No. (IATA)	: UN 0012 Cartridges, small arms, 1.4S : 0012
	0, ,

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Copper		CAS-No. 7440-50-8	65 - 90%	
Zinc		CAS-No. 7440-66-6	8 - 20%	
Nitroglycerin		CAS-No. 55-63-0	0 - 3%	
Dibutyl phthalate		CAS-No. 84-74-2	0 - 0.75%	
2,4-Dinitrotoluene		CAS-No. 121-14-2	0 - 0.75%	
Copper (7440-50-8)				
		ting of releases of this hazardous substance is required if the diameter of the lid metal released is >100 μm		
Zinc (7440-66-6)				
CERCLA RQ	454 kg no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 μm			
Nitrocellulose (9004-70-0)	Nitrocellulose (9004-70-0)			
EPA TSCA Regulatory Flag	g XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).			
Nitroglycerin (55-63-0)				
CERCLA RQ	10 lb			
Dibutyl phthalate (84-74-2)				
Listed on EPA Hazardous Air Pollutant (HAPS)				
CERCLA RQ	10 lb			
2,4-Dinitrotoluene (121-14-2)				
Listed on EPA Hazardous Air Pollutant (HAPS)	Listed on EPA Hazardous Air Pollutant (HAPS)			
CERCLA RQ	10 lb			

15.2. International regulations

CANADA

Copper (7440-50-8)	
Listed on the Canadian DSL (Domestic Substances List)	
Zinc (7440-66-6)	
Listed on the Canadian DSL (Domestic Substances List)	

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Iron (7439-89-6)	
Listed on the Canadian DSL (Domestic Substances List)	
Nitrocellulose (9004-70-0)	
Listed on the Canadian DSL (Domestic Substances List)	
Nitroglycerin (55-63-0)	
Listed on the Canadian DSL (Domestic Substances List)	
Dibutyl phthalate (84-74-2)	
Listed on the Canadian DSL (Domestic Substances List)	
Urea, N,N'-diethyl-N,N'-diphenyl- (85-98-3)	
Listed on the Canadian DSL (Domestic Substances List)	
2,4-Dinitrotoluene (121-14-2)	
Listed on the Canadian DSL (Domestic Substances List)	

EU-Regulations

Copper (7440-50-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Zinc (7440-66-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Iron (7439-89-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Nitroglycerin (55-63-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Dibutyl phthalate (84-74-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Urea, N,N'-diethyl-N,N'-diphenyl- (85-98-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

2,4-Dinitrotoluene (121-14-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Centerfire Ammunition; Pistol & Revolver and Rifle; with Alternative (copper) Bullets

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory

Copper (7440-50-8)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on CICR (Turkish Inventory and Control of Chemicals)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Zinc (7440-66-6)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on CICR (Turkish Inventory and Control of Chemicals)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

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ICC	cording to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations		
	Iron (7439-89-6)		
	Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on CICR (Turkish Inventory and Control of Chemicals) Listed on the TCSI (Taiwan Chemical Substance Inventory)		
Nitrocellulose (9004-70-0)			
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIOC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory)			
	Nitroglycerin (55-63-0)		
	Listed on the AICS (Australian Inventory of Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIOC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Japanese Pollutant Release and Transfer Register Law (PRTR Law) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory)		
Dibutyl phthalate (84-74-2)			
	Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Japanese Pollutant Release and Transfer Register Law (PRTR Law) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory)		
	Urea, N,N'-diethyl-N,N'-diphenyl- (85-98-3)		
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on the TCSI (Taiwan Chemical Substance Inventory)			
2,4-Dinitrotoluene (121-14-2)			
	Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Japanese Poisonous and Deleterious Substances Control Law Japanese Pollutant Release and Transfer Register Law (PRTR Law) Listed on INSQ (Mexican National Inventory of Chemical Substances)		
1	5.3. US State regulations		

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WARNING: This product can expose you to 2,4-Dinitrotoluene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
Copper(7440-50-8)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S Pennsylvania - RTK (Right to Know) List
Zinc(7440-66-6)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S Pennsylvania - RTK (Right to Know) List
Nitrocellulose(9004-70-0)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List
Nitroglycerin(55-63-0)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S Pennsylvania - RTK (Right to Know) List
Dibutyl phthalate(84-74-2)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S Pennsylvania - RTK (Right to Know) List
2,4-Dinitrotoluene(121-14-2)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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Revision date

Other information

: 11/04/2020

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Full text of H-phrases:

text of H-phrases:				
Acute Tox. 1 (Dermal)	Acute toxicity (dermal) Category 1			
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2			
Acute Tox. 2 (Oral)	Acute toxicity (oral) Category 2			
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3			
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3			
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3			
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4			
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1			
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1			
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2			
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3			
Carc. 1B	Carcinogenicity Category 1B			
Expl. 1.1	Explosive Category 1.1			
Expl. 1.4	Explosive Category 1.4			
Muta. 2	Germ cell mutagenicity Category 2			
Repr. 1B	Reproductive toxicity Category 1B			
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2			
Unst. Expl	Unstable explosives			
H200	Unstable explosive			
H201	Explosive; mass explosion hazard			
H204	Fire or projection hazard			
H300	Fatal if swallowed			
H301	Toxic if swallowed			
H302	Harmful if swallowed			
H310	Fatal in contact with skin			
H311	Toxic in contact with skin			
H330	Fatal if inhaled			
H331	Toxic if inhaled			
H341	Suspected of causing genetic defects			
H350	May cause cancer			
H360	May damage fertility or the unborn child			
H373	May cause damage to organs through prolonged or repeated exposure			
H400	Very toxic to aquatic life			
H410	Very toxic to aquatic life with long lasting effects			
H411	Toxic to aquatic life with long lasting effects			
H412	Harmful to aquatic life with long lasting effects			

SDS US (GHS HazCom 2012)

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