



HORNADY MFG. CO.

Safety Data Sheet Hornady® Rimfire Ammunition

SECTION 1: Identification

1.1 Product identifier

Product name	Hornady® Rimfire Ammunition
Brand	Hornady®
Substance name	See Section 3 Composition and Ingredients

1.2 Other means of identification

Cartridges, Small Arms Ammunition, Rimfire Ammunition, Hornady Magnum Rimfire, Mach 2, 22 Mag, 22 LR

Trade Names: 17 Mach 2®, 17 HMR™, 22 WMR Hornady®, 17 Win Super Mag, Varmint Express®; Does not include ammunition loaded with NTX™

1.3 Recommended use of the chemical and restrictions on use

Firearm Ammunition

1.4 Supplier's details

Name	Hornady Mfg. Co.
Address	P.O. Box 1848 Grand Island NE 68802 USA
Telephone	(308) 382-1390
Fax	(308) 382-5761
email	www.hornady.com

1.5 Emergency phone number(s)

CHEMTREC: (800) 424-9300 / (703) 527-3887

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Explosives, Division 1.4
- Specific target organ toxicity (repeated exposure), Cat. 1
- Toxic to reproduction, Cat. 1A
- Carcinogenicity, Cat. 2
- Sensitization, skin, Cat. 1A
- Acute toxicity, inhalation, Cat. 3

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2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H204	Fire or projection hazard
H317	May cause an allergic skin reaction
H331	Toxic if inhaled
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure

Precautionary statement(s)

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 flames/hot surfaces. No smoking.
P240	Ground/bond container and receiving equipment.
P250	Do not subject to grinding/shock/.../friction.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water/...
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P311	Call a POISON CENTER/doctor/...
P314	Get medical advice/attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
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 ...
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to ...
P313	If exposed or concerned: Get medical advice/attention.

2.3 Other hazards which do not result in classification

Routes of Entry: Inhalation: Yes, Absorption: No, Ingestion: Yes

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Substance name See Section 3 Composition and Ingredients

Hazardous components

1. ANTIMONY

Concentration 0-2 % (weight)
EC no. 231-146-5
CAS no. 7440-36-0

2. Copper (Foil, Rod, Slug)

Concentration 25 - 43 % (weight)
CAS no. 7440-50-8

3. Lead

Concentration 25 - 60 % (weight)
EC no. 231-100-4
CAS no. 7439-92-1
Index no. 082-014-00-7

- Toxic to reproduction, Cat. 1A
- Lact

H360FD

H362 May cause harm to breast-fed children

4. Nitrocellulose

Concentration 6.5 - 13 % (weight)
CAS no. 9004-70-0

5. Nitroglycerin

Concentration 1 - 6 % (weight)
EC no. 200-240-8
CAS no. 55-63-0
Index no. 603-034-01-7

- Explosives, Division 1.1
- Acute toxicity, dermal, Cat. 1
- Acute toxicity, inhalation, Cat. 2
- Acute toxicity, oral, Cat. 2
- Specific target organ toxicity (repeated exposure), Cat. 2
- Hazardous to the aquatic environment, long-term (chronic), Cat. 2

H201

Explosive; mass explosion hazard

H300

Fatal if swallowed

H310

Fatal in contact with skin

H330

Fatal if inhaled

H373

May cause damage to organs through prolonged or repeated exposure

H411

Toxic to aquatic life with long lasting effects

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6. Zinc (foil rod, slug)

Concentration	5 - 14 % (weight)
EC no.	231-175-3
CAS no.	7440-66-6
Index no.	030-001-01-9

- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), Cat. 1

H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

7. OTHER COMPONENTS PRESENT IN LESS THAN 1% CONCENTRATION

Concentration	BAL (weight)
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THE REMAINING COMPONENTS DO NOT CONTRIBUTE ANY SIGNIFICANT ADDITIONAL HAZARDS.

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled: If signs of lung irritation occur, remove victim to fresh air immediately. If respiration has stopped administer CPR and get medical attention immediately.

In case of skin contact: Wash affected skin thoroughly with soap and water.

In case of eye contact: Immediately flush out fume or particles with large amounts of water for at least 15 minutes. If irritation develops, call physician.

If swallowed: If ingested, call physician immediately.

Personal protective equipment for first-aid responders: No additional equipment required.

Medical Conditions Aggravated by Exposure: Repeated or prolonged exposure may aggravate and existing dermatitis condition.

4.2 Most important symptoms/effects, acute and delayed

Fragments from fired ammunition can cause physical injury. When ammunition is fired or otherwise discharged, dust and/or fumes may be absorbed by the digestive system and can result in both acute and chronic overexposure. Symptoms may include gastrointestinal irritation, nausea, vomiting and diarrhea. High concentrations of dust and/or fumes may irritate throat and respiratory system and cause coughing. Symptoms of chronic exposure to lead include anemia, visual and hearing disturbances, headache, memory loss, fatigue, muscle weakness, tremors, and convulsions. Ingestion of ammunition can cause irritation to the digestive system, and possibly other unknown health effects. A drop in blood pressure, headache, cyanosis and mental confusion may result from nitroglycerin in the product.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available.

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SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Fight fire with normal precautions from a reasonable distance.

5.2 Specific hazards arising from the chemical

Not considered flammable but may burn at high temperatures. Explosive. The effects are largely confined to the package and no projection fragments of appreciable size or range is to be expected. An external fire shall not cause virtually instantaneous explosion of almost the entire contents of the package. Do not expose to heat or ignition sources as this could cause an explosion. If heated above 200 °C (392 °F) may explode.

5.3 Special protective actions for fire-fighters

Do not breathe fumes from fires or vapors from decomposition. Exercise caution when fighting any chemical fire. If product is unconfined, there is a greater risk for injury from projectiles. Flood area with water to cool exposed product and extinguish fire. Fight fire with normal precautions from a reasonable distance.

Further information

Autoignition Temperature: 160°C-180°C (320°F- 360°F)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

No data available.

6.2 Environmental precautions

No data available.

6.3 Methods and materials for containment and cleaning up

Spills:

Spills will not normally require emergency response. Do not expose product to mechanical shock, electrical shock or impact. Spilled product can be picked up by any non-sparking, non-impact tools/methods. If spill is large or other assistance is required, call numbers indicated in Section 1. If cartridges are damaged or ruptured, be very careful to avoid all sources of ignition.

Reference to other sections

Section 1

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid striking the primer. Ammunition should stay in the manufacturer packaging while transferring. Remove ammunition from service if any of the following conditions have occurred: corrosion, physical damage, exposure to oil or spray type lubricants.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool and dry location. Do not expose to excessive heat, flame or other sources of ignition. Avoid mechanical shock and electrical discharge.

Specific end use(s)

No data available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. ANTIMONY (CAS: 7440-36-0)

PEL (Inhalation): 0.5 mg/m³ (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 0.5 mg/m³ (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 0.5 mg/m³ (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

2. Lead (CAS: 7439-92-1)

PEL (Inhalation): 0.05 mg/m³, See Section 5198 (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 0.05 mg/m³, See Appendix C (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

3. Nitroglycerin (CAS: 55-63-0)

PEL (Inhalation): (C) 0.2 ppm (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): (C) 2 mg/m³ (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 0.05 ppm for mixture of nitroglycerine and ethylene glycol dinitrate, (ST) 0.1 mg/m³ (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): (ST) 0.1 mg/m³ (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

8.2 Appropriate engineering controls

Use proper range filtration and airflow as well as sound deadening material for indoor firing.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses.

Skin protection

None.

Body protection

Wash hands thoroughly after use and before eating, drinking, or using tobacco.

Respiratory protection

Not normally needed. Unless exposure exceeds established occupational exposure limits, then a NIOSH-approved respirator or self-contained breathing apparatus should be used.

Thermal hazards

No data available.

Control banding approach

Use proper range filtration and airflow as well as sound deadening material for indoor firing.

Environmental exposure controls

Hearing Protection: Use adequate hearing protection when using firearms

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SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	No data available.
Odor	No data available.
Odor threshold	No data available.
pH	No data available.
Melting point/freezing point	No data available.
Initial boiling point and boiling range	No data available.
Flash point	N/A
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability limits	No data available.
Upper/lower explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility(ies)	Insoluble
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	160°C-180°C (320°F-360°F)
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Other safety information

Not considered flammable but may burn at high temperatures. Explosive. The effects are largely confined to the package and no projection fragments of appreciable size or range is to be expected. An external fire shall not cause virtually instantaneous explosion of almost the entire contents of the package. Do not expose to heat or ignition sources as this could cause an explosion. If heated above 200°C (392°F) may explode.

SECTION 10: Stability and reactivity

10.1 Reactivity

Polymerization: Will not occur.

10.2 Chemical stability

Stable under normal conditions.

10.4 Conditions to avoid

Mechanical shock, electrical discharge, extreme heat.

10.5 Incompatible materials

Acids, caustics, strong oxidizers

10.6 Hazardous decomposition products

Lead oxides, lead fume, lead dust, carbon monoxide, nitrogen oxides

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

See section 4

Skin corrosion/irritation

See section 4

Serious eye damage/irritation

See section 4

Respiratory or skin sensitization

See section 4

Germ cell mutagenicity

Mutagenic effects have occurred in experimental animals

Carcinogenicity

Trace amounts of chemicals are suspected to cause cancer, birth defects or other reproductive harm may be present in this product.

Reproductive toxicity

Mutagenicity: This product is not expected to cause mutagenic effects in humans.
Mutagenic effects have occurred in experimental animals.

Embryotoxicity: This product is not expected to cause embryotoxic effects in humans.

Teratogenicity: This product is not expected to cause teratogenic effects in humans.
Teratogenic effects have occurred in experimental animals.

Reproductive Toxicity: This product is expected to cause reproductive harm in humans.

Summary of evaluation of the CMR properties

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

Trace amounts of chemicals are suspected to cause cancer, birth defects or other reproductive harm may be present in this product.

Aspiration hazard

No data available.

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SECTION 12: Ecological information

Toxicity

This product has no ecological information available.

Individual component information as follows:

Lead: Toxic to waterfowl, high concentrations may be toxic to other aquatic species.

Copper: Toxic to aquatic species. Concentration required for toxicity varies with water chemistry, light transmittance, and other factors. Generally accepted level for aquatic toxicity is >1.0mg/L

Dibutyl Phthalate: Fathead minnow: 1.3mg/L (96H)

Nitrocellulose: LC50>1,000mg/L (aquatic invertebrates, fish, algae)

Nitroglycerine: LC50 (96 hour) 1.228mg/L (bluegill)

Zinc: Depending on conditions, as little as .13mg/L may be toxic to some species

SECTION 13: Disposal considerations

Disposal of the product

Dispose of in accordance with federal & provincial hazardous waste laws. Product that has become waste must be considered hazardous and disposed of accordingly. The user of this product is responsible for seeing that it is disposed of in accordance with all federal, state and local laws. For more information regarding disposal of this product contact the manufacturer.

Other disposal recommendations

RCRA Hazard Class: D003, D008, depending on condition

SECTION 14: Transport information

DOT (US)

UN Number: 0012

Class: 1.4S

Packing Group: None

Proper Shipping Name: Cartridges, Small Arms

Reportable quantity (RQ):

Marine pollutant:

Poison inhalation hazard:

Label Statement: None for highway/water/rail; 1.4 placard for individual packages over 1001 lbs.

Limited Quantities: May be classified, marked, and transported as Limited Quantities in accordance with 49CFR 173.63

IMDG

UN Number: 0012

Class: 1.4S

Packing Group: None

EMS Number: F-B (Fire), S-X (Spillage)

Proper Shipping Name: Cartridges for Weapons, Inert Projectile

Label Statement: None, if "1.4S" is marked on package, otherwise 1.4S hazard label is required.

Limited Quantities: May be classified, marked, and transported as Limited Quantities, in accordance with Section 3.4

IATA

UN Number: 0012

Class: 1.4S

Packing Group: None

Proper Shipping Name: Cartridges, Small Arms

Label Statement: 1.4S Label

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Pennsylvania Right To Know Components

Chemical name: Antimony

CAS number: 7440-36-0

Chemical name: Copper

CAS number: 7440-50-8

Chemical name: Lead

CAS number: 7439-92-1

Chemical name: Cellulose, nitrate

CAS number: 9004-70-0

Chemical name: 1,2,3-Propanetriol, Trinitrate

CAS number: 55-63-0

Chemical name: Zinc

CAS number: 7440-66-6

Massachusetts Right To Know Components

Chemical name: Antimony

CAS number: 7440-36-0

Chemical name: Copper

CAS number: 7440-50-8

Chemical name: Lead

CAS number: 7439-92-1

Chemical name: Nitroglycerin

CAS number: 55-63-0

Chemical name: Zinc

CAS number: 7440-66-6

New Jersey Right To Know Components

Common name: ANTIMONY

CAS number: 7440-36-0

Common name: COPPER

CAS number: 7440-50-8

Common name: LEAD

CAS number: 7439-92-1

Common name: NITROCELLULOSE

CAS number: 9004-70-0

Common name: NITROGLYCERIN

CAS number: 55-63-0

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Common name: ZINC
CAS number: 7440-66-6

Canadian Domestic Substances List (DSL)

Chemical name: Antimony
CAS: 7440-36-0

Chemical name: Copper
CAS: 7440-50-8

Chemical name: Lead
CAS: 7439-92-1

Chemical name: Cellulose, nitrate
CAS: 9004-70-0

Chemical name: 1,2,3-Propanetriol, trinitrate
CAS: 55-63-0

Chemical name: Zinc
CAS: 7440-66-6

California Prop. 65 components

Chemical name: Lead
CAS number: 7439-92-1
02/27/1987 - Developmental toxicity
02/27/1987 - Female reproductive toxicity
02/27/1987 - Male reproductive toxicity
10/01/1992 - Cancer

Sara Reporting Requirements:

Nitroglycerin if above threshold

SARA Threshold Planning Quantity:

N/A

TSCA Inventory Status:

All chemical substances of this product are listed on the TSCA inventory or are otherwise exempt from inventory status.

CERCLA Reportable Quantity (RQ):

Lead: 10 lbs
Copper: 5,000 lbs
Antimony: 5,000 lbs
Nitroglycerin: 10 lbs
Zinc: 1,000 lbs

311/312:

Release of Pressure

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California Proposition 65:

(Lead)- Warning- This product may contain a chemical known to the State of California to cause cancer or birth defects or other reproductive harm.

State Regulatory Information:

California: N/A

Massachusetts: Copper, Lead, Nitrocellulose, Nitroglycerin, Antimony, Zinc

Michigan: Copper, Lead, Antimony, Zinc

Minnesota: N/A

New Jersey: Copper, Lead, Nitrocellulose, Nitroglycerin, Antimony, Zinc

Pennsylvania: Copper, Lead, Nitrocellulose, Nitroglycerin, Antimony

67/548/EEC (European Union) and CLP/GHS (1272/2008/EC) Requirements:

Hazard Classification:

Cartridges, Small Arms

Signal Word

Warning

Hazard Statements (H):

H204- Fire or projection hazard.

Precautionary Statements (P):

P210- Keep away from heat/sparks/open flames/hot surfaces- No smoking.

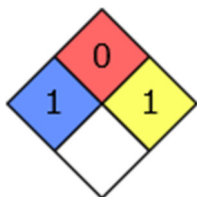
15.2 Chemical Safety Assessment

No data available.

HMIS Rating

See Section 3 Composition and Ingredients	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	2
PERSONAL PROTECTION	A

NFPA Rating



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SECTION 16: Other information

Disclaimer:

This Safety Data Sheet complies with Health Canada's Workplace Hazardous Information System (WHIMS) & U.S. OSHA's Hazard Communication Standard 29 CFR 1910.1200. To the best of Hornady Manufacturing Company's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product. Contact the manufacturer for additional information

16.1 Further information/disclaimer

FIRE PROJECTILES MAY CAUSE SERIOUS INJURY OR DEATH. Use ammunition ONLY in firearms that are of the correct caliber and in good condition. ALWAYS keep the muzzle pointed in a safe direction. Projectiles have extremely long range, always be certain to have an adequate backstop. To avoid ricochet, do not fire at water, rocks or other hard or flat surfaces.

16.2 Preparation information

Prepared By: S. Duncan