



# Barnes VOR-TX® SHOTSHELL

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Issue date: 8/25/2021 Revision date: 8/25/2021 Version: 1.0

### SECTION 1: Identification

#### 1.1. Identification

Product form : Article  
Product name : Barnes VOR-TX® SHOTSHELL

#### 1.2. Recommended use and restrictions on use

Recommended use : Ammunition  
Restrictions on use : Uses other than listed on the manufacturer product label

#### 1.3. Supplier

Barnes Bullets, LLC  
38 North Frontage Road  
Mona, UT, 84645  
T 435-856-1000

#### 1.4. Emergency telephone number

Emergency number : CHEMTEL 1-800-255-3924

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Explosive Category 1.4 H204 Fire or projection hazard  
Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

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.

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### 2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : This product is considered an explosive article. Each product covered by this Safety Data Sheet is sealed ammunition. The ammunition contains hazardous substances, which under normal conditions of use are not in contact with the user. If the item is fractured or intentionally disassembled prior to actuation, exposure to the contents of this ammunition may cause the following health effects. Toxic if swallowed or in contact with skin and harmful if inhaled. It may damage organs, cause genetic defects, and damage fertility or the unborn child. May be harmful to aquatic life with long lasting effects.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## 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	55 – 80	Aquatic Acute 1, H400
Nitroglycerin	CAS-No.: 55-63-0	1 – 5	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
Rosin	CAS-No.: 8050-09-7	< 0.25	Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Sens. 1, H317
lead 2,4,6-trinitro-m-phenylene dioxide, lead 2,4,6-trinitroresorcinoxide, lead styphnate (≥ 20 % phlegmatizer)	CAS-No.: 15245-44-0	0 – 0.1	Expl. 1.1, H201 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Repr. 1A, H360 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.

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### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.  
Unsuitable extinguishing media : Not determined.

### 5.2. Specific hazards arising from the chemical

Explosion hazard : Explosion risk in case of fire.  
Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Evacuate area. Do not fight fire when fire reaches explosives. Fight fire from safe distance and protected location.  
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking.

#### 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 and cleaning up

Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.  
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

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.

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### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.  
Storage conditions : Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Barnes VOR-TX® SHOTSHELL	
No additional information available.	
Copper (7440-50-8)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.2 mg/m <sup>3</sup> (fume)
Nitrocellulose (9004-70-0)	
No additional information available.	
Nitroglycerin (55-63-0)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	0.05 ppm
ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
Cellulose (9004-34-6)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	10 mg/m <sup>3</sup>
Rosin (8050-09-7)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.001 mg/m <sup>3</sup> (inhalable particulate matter)
ACGIH chemical category	dermal sensitizer
lead 2,4,6-trinitro-m-phenylene dioxide, lead 2,4,6-trinitroresorcinoxide, lead styphnate (≥ 20 % phlegmatizer) (15245-44-0)	
No additional information available.	

### 8.2. Appropriate engineering controls

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

### 8.3. Individual protection measures/Personal protective equipment

<b>Hand protection:</b>
Protective gloves
<b>Eye protection:</b>
Chemical goggles or safety glasses
<b>Skin and body protection:</b>
Wear suitable protective clothing

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### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Solid.
Color	: Metallic
Odor	: Odorless
Odor threshold	: No data available.
pH	: 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)	: Non flammable.
Vapor pressure	: No data available.
Relative vapor density at 20 °C	: No data available.
Relative density	: No data available.
Solubility	: No data available.
Partition coefficient n-octanol/water (Log Pow)	: No data available.
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available.
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available.
Explosion limits	: Not applicable
Explosive properties	: No data available.
Oxidizing properties	: No data available.

### 9.2. Other information

No additional information available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Fire or projection hazard.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

No additional information available.

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### 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 CO<sub>2</sub>).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.  
Acute toxicity (dermal) : Not classified.  
Acute toxicity (inhalation) : Not classified.

#### 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

#### Rosin (8050-09-7)

LD50 oral rat	7600 mg/kg
LD50 dermal rabbit	> 2500 mg/kg
LC50 Inhalation - Rat	1.5 mg/l/4h
ATE US (oral)	7600 mg/kg body weight
ATE US (vapors)	1.5 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

#### lead 2,4,6-trinitro-m-phenylene dioxide, lead 2,4,6-trinitroresorcinoxide, lead styphnate (≥ 20 % phlegmatizer) (15245-44-0)

ATE US (oral)	500 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation : Not classified.  
Serious eye damage/irritation : Not classified.  
Respiratory or skin sensitization : Not classified.  
Germ cell mutagenicity : Not classified.  
Carcinogenicity : Not classified.

#### lead 2,4,6-trinitro-m-phenylene dioxide, lead 2,4,6-trinitroresorcinoxide, lead styphnate (≥ 20 % phlegmatizer) (15245-44-0)

National Toxicity Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
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.
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### lead 2,4,6-trinitro-m-phenylene dioxide, lead 2,4,6-trinitroresorcinoxide, lead styphnate (≥ 20 % phlegmatizer) (15245-44-0)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified.
Viscosity, kinematic	: Not applicable
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.

## SECTION 12: Ecological information

### 12.1. 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 - Crustacea [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])

#### Nitroglycerin (55-63-0)

LC50 - Fish [1]	0.87 – 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
EC50 - Crustacea [1]	46 – 55 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 - Fish [2]	0.87 – 2.21 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [2]	38 – 55 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

#### Rosin (8050-09-7)

EC50 - Crustacea [1]	3.8 – 5.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
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### 12.2. Persistence and degradability

No additional information available.

### 12.3. Bioaccumulative potential

No additional information available.

### 12.4. Mobility in soil

No additional information available.

### 12.5. Other adverse effects

No additional information available.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

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### 14.1. UN number

DOT NA No : UN0012  
UN-No. (IMDG) : 0012  
UN-No. (IATA) : 0012

### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Cartridges, small arms  
Proper Shipping Name (TDG) : CARTRIDGES, SMALL ARMS  
Proper Shipping Name (IMDG) : CARTRIDGES, SMALL ARMS  
Proper Shipping Name (IATA) : Cartridges, small arms

### 14.3. Transport hazard class(es)

#### DOT

Transport hazard class(es) (DOT) : 1.4S

#### IMDG

Transport hazard class(es) (IMDG) : 1.4S  
Hazard labels (IMDG) : 1.4S



#### IATA

Transport hazard class(es) (IATA) : 1.4S  
Hazard labels (IATA) : 1.4S



### 14.4. Packing group

Packing group (DOT) : Not applicable  
Packing group (IMDG) : Not applicable  
Packing group (IATA) : Not applicable

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

**DOT**  
UN-No.(DOT) : UN0012  
DOT Packaging Exceptions (49 CFR 173.xxx) : 63  
DOT Packaging Non Bulk (49 CFR 173.xxx) : 62  
DOT Packaging Bulk (49 CFR 173.xxx) : None  
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 Location : 01 - The material may be stowed "on deck" or "under deck" on a cargo vessel (up to 12 passengers) and on a passenger vessel.  
DOT Vessel Stowage Other : 25 - Protected from sources of heat



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### IMDG

Special provision (IMDG)	: 364
Limited quantities (IMDG)	: 5 kg
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P130
EmS-No. (Fire)	: F-B - FIRE SCHEDULE Bravo - EXPLOSIVE SUBSTANCES AND ARTICLES
EmS-No. (Spillage)	: S-X - SPILLAGE SCHEDULE X-Ray - EXPLOSIVE ITEMS AND ARTICLES
Stowage category (IMDG)	: 01
Properties and observations (IMDG)	: See glossary of terms in appendix B.

### IATA

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: 130
PCA max net quantity (IATA)	: 25kg
CAO packing instructions (IATA)	: 130
CAO max net quantity (IATA)	: 100kg
Special provision (IATA)	: A802
ERG code (IATA)	: 3L

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Barnes VOR-TX® SHOTSHELL

SARA Section 311/312 Hazard Classes	Physical hazard - Explosive
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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	55 – 80%
Nitroglycerin	CAS-No. 55-63-0	1 – 5%

#### Copper (7440-50-8)

CERCLA RQ	5000 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm
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#### Nitroglycerin (55-63-0)

CERCLA RQ	10 lb
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### 15.2. International regulations

No additional information available.

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### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

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
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
lead 2,4,6-trinitro-m-phenylene dioxide, lead 2,4,6-trinitroresorcinoxide, lead styphnate (≥ 20 % phlegmatizer)(15245-44-0)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List

### SECTION 16: Other information

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Full text of H-phrases	
H200	Unstable explosive
H201	Explosive; mass explosion hazard
H204	Fire or projection hazard
H300	Fatal if swallowed
H302	Harmful if swallowed
H310	Fatal in contact with skin
H317	May cause an allergic skin reaction
H330	Fatal if inhaled
H332	Harmful if inhaled
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

Safety Data Sheet (SDS), USA

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