



SAFETY DATA SHEET

HEVI-Shot SDS: Non Toxic Shot (tungsten, nickel & iron) Revision Date: 6/25/2021

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: NON-TOXIC SHOT Made from Tungsten-Nickel-Iron
Chemical Name: Mixture – Metal Alloy
Synonyms: HEVI-Shot® Pellets
Chemical Family: Metal Alloy
Formula: Not applicable – mixture
Product Use: Ammunition – Shot Shell

Company Address: Federal Cartridge Company d/b/a Hevi Shot
1307 Clark Mill Rd
P.O. Box 779
Sweet Home, OR 97386
T 1-800-635-7656
dangerous.goods@vistaoutdoor.com

EMERGENCY TELEPHONE:
CHEMTREC Day or Night
1-800-424-9300 CCN796979

2. HAZARDS IDENTIFICATION

HAZARD RATINGS (for dust or fume)

Hazardous Materials Identification System (HMIS)

National Fire Protection Association (NFPA)
HUMAN THRESHOLD RESPONSE DATA

Odor Threshold:
Irritation Threshold:
Immediately Dangerous to Life or Health (IDLH) Value (s):

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

Health: 0 Flammability: 0 Physical Hazard- 0

Mixture: N/A

Unknown
Unknown
None

Chemical Name	
HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	0

POTENTIAL HEALTH EFFECTS

This product is composed of a tungsten, nickel & iron alloy. It is non-toxic. Therefore, under normal handling of the product, no exposure to any harmful materials will occur. People with a skin sensitivity to nickel could have mild irritation from handling the shot.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: There are no medical conditions known to be aggravated by exposure to this product in its solid form.

POTENTIAL ENVIRONMENTAL EFFECTS: Products approved by US Fish and Wildlife Service demonstrated no significant adverse environmental effects.

3. COMPOSITION / INFORMATION ON INGREDIENTS

CAS Number	Components	% By Weight	EINECS/ELINCS#	EU Classification	
				Symbol	R-Phrase
7440-33-7	Tungsten	20-65	231-143-9	None	None
7440-02-0	Nickel	10-35	231-111-4	None	R43
7439-89-6	Iron	0-100	231-096-4	None	None

OSHA REGULATORY STATUS: Not Applicable

4. FIRST AID MEASURES

EYE CONTACT: Immediately flush out particles with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If eye irritation develops, call at physician at once.

SKIN CONTACT: Wash skin with plenty of soap and water.

INHALATION: N/A

INGESTION: If ingested, immediately call a physician.

5. FIRE FIGHTING MEASURES

PROPERTY	VALUE	PROPERTY	VALUE
<i>Explosive:</i>	Not applicable	<i>Flammable:</i>	No
<i>Combustible:</i>	Not applicable	<i>Pyrophoric:</i>	No
<i>Flash Point (C):</i>	Not applicable	<i>Burning Rate of Material:</i>	Not applicable
<i>Lower Explosive Limit:</i>	Not applicable	<i>Auto Ignition Temp:</i>	No data
<i>Upper Explosive Limit:</i>	Not applicable	<i>Flammability Classification (defined by 29 CFR 1910.1200)</i>	None

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A (Note: the melting points of the alloys are above 1,500°C)

EXTINGUISHING MEDIA: Dry sodium-chloride or sand.

SPECIAL FIREFIGHTING PROCEDURES: In case of fire, use normal fire fighting equipment.

6. ACCIDENTAL RELEASE MEASURES

FOR ALL TRANSPORTATION ACCIDENTS, CALL: Chemtrec at 1-800-424-9300 CCN796979

Spills of this material do not require any special handling. If, however, a large spill occurs, call **Chemtrec at 1-800-424-9300 CCN796979** for technical assistance.

7. HANDLING AND STORAGE

Handling:	No special requirements
Storage:	No special requirements
Shelf Life Limitations:	Indefinite
Incompatible Materials for Packaging:	None known
Incompatible Materials for Storage/Transportation:	None known
Conditions to Avoid:	None known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	CHEMICAL NAME	ACGIH TLV	OSHA PEL	INTERNATIONAL OELS
7440-02-0	Nickel	0.2 mg/ m ⁷	1 mg/ m ⁷	0.2-10 mg/ m ⁷
7439-89-6	Iron	None established	None established	None established
7440-33-7	Tungsten*	5 mg/m ³ 10 mg/m ³ (STEL)	None established	Denmark, Netherlands, Norway, Poland, Sweden, UK: 5 mg/m ³

*This substance is regulated by OSHA as a Particulate Not Otherwise Regulated (PNOR). The exposure limits listed for both OSHA and ACGIH refer to total dust. The OSHA PEL for the respirable fraction is 5mg/m³.

ENGINEERING CONTROLS:	Local exhaust ventilation is recommended if significant dusting occurs or if fumes are generated. Otherwise, use general exhaust ventilation.
EYE/FACE PROTECTION:	Use safety glasses.
SKIN PROTECTION:	Due to Ni content, wear impervious gloves.
RESPIRATORY PROTECTION:	Respiratory protection is not normally needed.
GENERAL HYGIENCE:	Do not eat, drink, or smoke while using this product. Wash hands thoroughly after use.

9. PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	VALUE	PROPERTY	VALUE
<i>Appearance:</i>	Metal alloy shot	<i>Vapor Density (air = 1):</i>	Not applicable
<i>Odor:</i>	None	<i>Boiling Point (F):</i>	Not applicable
<i>Molecular Weight:</i>	Not applicable - Mixture	<i>Melting point:</i>	>1,500 degrees C.
<i>Physical State:</i>	Solid	<i>Specific gravity (g/cc):</i>	8-13 g/cc
<i>pH:</i>	Not applicable	<i>Bulk Density:</i>	Not applicable
<i>Vapor Pressure (mm Hg)</i>	Not applicable	<i>Viscosity (cps):</i>	Not applicable
<i>Vapor Density</i>	Not applicable	<i>Decomposition Temperature:</i>	No applicable
<i>Solubility in water (20C)</i>	Insoluble	<i>Evaporation Rate:</i>	Not applicable
<i>Volatiles-Percentage by Volume</i>	Not applicable	<i>Octanol/water partition coefficient</i>	Not applicable

10. STABILITY AND REACTIVITY

STABILITY:	Stable
MATERIALS TO AVOID:	None identified to date
HAZARDOUS DECOMPOSITION PRODUCTS:	None identified to date
HAZARDOUS POLYMERIZATION:	Will not occur.
OTHER:	N/A

11. TOXICOLOGICAL INFORMATION

POTENTIAL EXPOSURE ROUTES: The physical nature of this product makes absorption for any route unlikely. A small amount of inhalable particles may be created when projectile is fired.

ACCUTE ANIMAL TOXICITY DATA:

	Oral LD₅₀	Dermal LD₅₀	Inhalation LC₅₀	Irritation
For product:	<i>Not applicable for product</i>	<i>Not applicable for product</i>	<i>Not applicable for product.</i>	<i>Shot can be an irritant for people with a nickel sensitivity</i>
		For Components:		
<i>Nickel</i>	<i>>9000 mg/kg rat</i>	<i>No data</i>	<i>No data</i>	<i>Skin irritant for some individuals</i>
<i>Iron</i>	<i>30 g/kg rat</i>	<i>No data</i>	<i>No data</i>	<i>Eye irritant</i>
<i>Tungsten</i>	<i>> 2 g/kg rat</i>	<i>> 2 g/kr rabbit</i>	<i>> 5 mg/l (4 hours rabbit)</i>	<i>Mild eye & skin irritant</i>

SUBCHRONIC/CHRONIC TOXICITY:

CARCINOGENICITY:

MUTAGENICITY:

REPRODUCTIVE, TERATOGENICITY,

OR DEVELOPMENTAL EFFECTS:

NEUROLOGICAL EFFECTS:

INTERACTIONS WITH OTHER CHEMICALS

WHICH ENHANCE TOXICITY:

Nickel is a possible carcinogen.

Nickel is carcinogenic by RTECS criteria.

This product is not known or reported to be mutagenic

This product is not known or reported to cause reproductive or developmental effects.

This product is not known or reported to cause neurological effects.

None known or reported.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: USFWS studies found no ecotoxicity. Individual constituents have the following effects:

Nickel: The following concentrations of nickel have been reported as lethal to fish:

LC50 Fish 1: 100 mg/l (Exposure time: 96h – Species: Brachydanio rerio)

EC50 Daphnia 1: 12 (13-200) mg/l (Exposure time: 48h – Species: Ceriodaphnia dubia [static])

LC50 Fish 2: 1.3 mg/l (Exposure time: 96 h – Species: Cyprinus carpio [semi-static])

EC50 Daphnia 2: 1 mg/l (Exposure time: 48 h – Species: Daphnia magna [Static])

EC50 Other Aquatic Organisms: 0.174 (0.174 – 0.311) mg/l (Exposure time: 96 h-Species: Pseudokirchneriella subcapitata [static])

MOBILITY:

No data

PERSISTANCE/DEGRADABILITY:

Not biodegradable.

BIOACCUMULATION:

No data.

13. DISPOSAL CONSIDERATIONS:

Neither the alloys nor the constituents of the alloys have hazardous waste numbers listed in 40 CFR Part 261, Appendix VIII.

14. TRANSPORT INFORMATION

	U.S. DOT	RID/ADR	IMDG	IATA	IMO	Canada TDG
PROPER SHIPPING NAME:	Tungsten, Nickel & Iron Alloy					
HAZARD CLASS:	N/A				Not applicable	
UN NO:					Not applicable	
PACKING GROUP:					Not applicable	
HAZARD LABEL/PLACARD:	Labels not required for ground or water shipment					
	Placards are not required (see 49FR 172.504)					
	For International air shipments: No special labeling required					

<i>REPORTABLE QUANTITY:</i>	For domestic air shipments: No special labeling required
	Not applicable
<i>SPECIAL COMMENTS</i>	No special labeling required

15. REGULATORY INFORMATION

U.S. FEDERAL

TSCA:	The components of this product are listed on the Toxic Substance Control Act Inventory.			
CERCLA:	Nickel RQ = 100 lbs. if particles < 100 µm			
SARA 313:	Nickel			
SARA 313 HAZARD CLASS:	<i>Health:</i> Acute: No Chronic - No	No	<i>Reactivity:</i> None	<i>Release of Pressure:</i> No
SARA 302 EHS LIST:	None of the components of this product are listed.			
*RQ = Reportable Quantity				

STATE RIGHT-TO-KNOW STATUS

Component	*CA Prop. 65	New Jersey	Pennsylvania	Massachusetts	Michigan
Nickel	X	X	X	X	Not listed
Iron	Not listed	Not listed	Not listed	Not listed	Not listed
Tungsten	Not listed	Not listed	X	X	Not listed

EUROPEAN REGULATIONS

HAZARD CLASSIFICATION:

Danger Symbol: Not applicable
 Risk Phrases: Not applicable
 Safety Phrases: S2 Keep out of reach of children.

German WGK Classification: Not known

CANADIAN REGULATIONS

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

Ingredient Disclosure List: Not applicable
 WHMIS: This product is not subject to WHMIS.

16. OTHER INFORMATION

REVISIONS:

REPAIRED BY: Federal Cartridge Company d/b/a Hevi Shot

NOTICE: The information in this SDS should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering, operations and management, and for persons working with or handling this product. Environ-Metal, Inc. believes this information to be reliable and current as of the date of publication, but makes no warranty that it is.