SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS, Australian WorkSafe, Japanese Standard JIS Z 7250:2000, and EU REACH Regulations

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	**LEAD SHOT AND SLUGS**
CAS Number:	Mixture – Metal Alloy
Synonyms:	Hard Lead Shot, Shot, Hard Lead Slugs, Slugs
Product Use:	Projectiles for shotshells
U.N. Number:	None
U.N. Dangerous Goods Class	Not regulated
Manufacturer/Responsible Party:	Olin Winchester, LLC
Manufacturers' Address:	600 Powder Mill Road, East Alton, IL 62024 www.winchester.com
Emergency Telephone Number:	US/Canada: 1-800-424-9300 Outside US/Canada: 703-527-3887
MSDS Control Group:	618-258-3507 (Technical Information Only)

Olin MSDS No.: 00077.0001 **Issue Date:** 03/04/2015

Revision Date: 02/28/2019

Revision No.: 5

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: DANGER. MAY CAUSE CANCER. MAY DAMAGE FERTILITY OR THE UNBORN CHILD. MAY CAUSE HARM TO BREAST-FED CHILDREN. CAUSES DAMAGE TO NERVOUS, BLOOD FORMING AND RENAL SYSTEMS THROUGH PROLONGED OR REPEATED EXPOSURE. TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS. DO NOT TAKE INTERNALLY.

US DOT SYMBOLS	CANADA (WHMIS) SYMBOLS	GHS HAZARD SYMBOLS
Not Regulated	This Product is not subject to WHMIS	

GHS Classifications:
Carcinogenicity Category 1A
Reproductive Toxicity Category 1A
STOT RE Category 1
Hazardous to the Aquatic Environment, Chronic Category 2

Signal Word:
Danger

Hazard Statements :
H350: May cause cancer
H360: May damage fertility or the unborn child
H362: May cause harm to breast-fed children
H372: Causes damage to nervous, blood forming and renal systems through prolonged or repeated exposure
H411: Toxic to aquatic life with long lasting effects

Target organs:
Nervous, blood forming and renal systems

Precautionary Statements:
P102: Keep out of reach of children
P202: Do not handle until all safety precautions have been read and understood
P260: Do not breathe dust
P263: Avoid contact during pregnancy /while nursing
P264: Wash hands thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P271: Use only outdoors or in a well-ventilated area
P273: Avoid release to the environment
P280: Wear eye protection/face protection
P281: Use personal protective equipment as required

GHS Pictograms:
Specific Target Organ Toxicity; Pictogram Code: GHS08
Environment; Pictogram Code: GHS09

EU Classifications:

Hazard Symbols: T, N

Risk Phrases:
R45 (Category 1): May cause cancer
R60/61 (Category 1): May impair fertility or cause harm to the unborn child
R64: May cause harm to breast-fed children
R48: Danger of serious damage to health by prolonged exposure
R51/53: Toxic to aquatic organisms and many cause long-term adverse effects in the aquatic environment

Safety Phrases:
S2: Keep out of reach of children
S20/21: When using do not eat, drink or smoke
S22: Do not breathe dust
S38: In case of insufficient ventilation, wear suitable respiratory equipment
S39: Wear eye/face protection
S51: Use only in well-ventilated areas
S61: Avoid release to the environment

Health Hazards or Risks From Exposure

This product is composed of finished metal-alloy shot or finished metal-alloy slugs. Therefore, under normal handling of this product no exposure to any harmful materials are likely to occur. When the shot or slugs are fired, a small amount of particles may be generated which may be slightly irritating to the eyes and respiratory tract. The particles may contain trace amounts of these harmful substances:

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. Occupational exposure to lead is associated with lung and stomach cancer. Lead is classified as a probable human carcinogen.
Arsenic: Epidemiological studies in humans have shown an association between increased incidences of lung and skin cancer and prolonged exposures to high concentrations of arsenic. Arsenic is classified as a known human carcinogen.

It is unlikely that the amount of particles that someone would be exposed to from firing this shot or slug would be sufficient to cause any of these effects.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% By Weight	CAS Number	EINECS/ ELINCS #
Lead	99	7439-92-1	231-100-4
Antimony	1 – 5	7440-36-0	231-146-5
Arsenic	0.1 - 1	7440-38-2	231-148-6

4. FIRST AID MEASURES

Eye Contact: Immediately flush out fume or particles with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If eye irritation develops, call a physician at once.
Skin Contact: Wash skin with plenty of soap and water.
Inhalation: If symptoms of lung irritation occur (coughing, wheezing or breathing difficulty), remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep affected person warm and at rest. Get medical attention.
Ingestion: If ingested, immediately call a physician.

Medical Conditions Aggravated By Exposure:
There are no medical conditions known to be aggravated by exposure to this product in its solid form. Exposure to lead can aggravate anemia, nervous system and kidney disease.

Recommendations To Physcians:
Remove from exposure, if possible, and treat symptoms

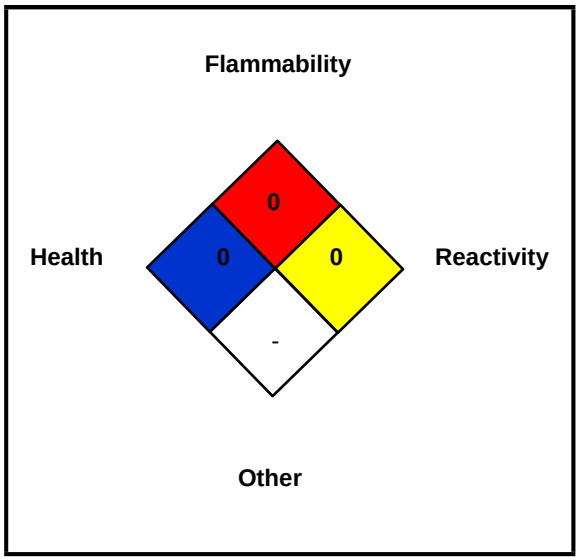
5. FIRE FIGHTING MEASURES

PROPERTY	*VALUE*	*PROPERTY*	*VALUE*
Explosive	No	Flammable	No
Combustible	Not applicable	Pyrophoric	No
Flash Point (°C):	Not applicable	Burning Rate of Material:	Not applicable
Lower Explosive Limit:	Not applicable	Autoignition Temp.:	Not applicable
Upper Explosive Limit:	Not applicable	Flammability Classification: (defined by 29 CFR 1910.1200)	Not applicable

Unusal Fire and Explosion Hazards: None
Extinguishing Media: Not Applicable - Choose extinguishing media suitable for surrounding materials.
Special Firefighting Procedures: In case of fire, use normal fire fighting equipment. Response to this material requires the use of a self-contained breathing apparatus (SCBA).

Prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas, if practical.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HEALTH HAZARD (BLUE)	**0***
FLAMMABILITY HAZARD (RED)	**0**
PHYSICAL HAZARD (YELLOW)	**0**

PROTECTIVE EQUIPMENT			
EYES	PPE CODE	RESPIRATORY	HEARING
	A	See Sect 8	See Sect 8

Hazard Scale: **0** = Minimal **1** = Slight **2** = Moderate **3** = Serious **4** = Severe * = Chronic hazard

6. ACCIDENTAL RELEASE MEASURES

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC AT 800-424-9300.

Spill Response: A spill of this material will normally not require emergency response team capabilities. This material is heavier than and insoluble in water. Use clean shovel or broom to pick up and place in clean container for disposal. If, however, a large spill occurs, call 1-888-289-1911 for technical assistance.

Accidental Release Procedures: Place collected material in a designated, labeled waste container. See Section 13 for waste disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Use appropriate personal protective equipment (see Section 8). Workers should wash hands thoroughly after handling. Eating, drinking and smoking should be prohibited in areas where this material is handled and stored.

Conditions for Safe Storage: Store in original containers in a cool, dry location away from acids and caustics.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

CAS #	*CHEMICAL NAME*	*ACGIH TLV*	*OSHA PEL*	*INTERNATIONAL OELS*
7439-92-1	Lead	0.05 mg/m^3	0.05 mg/m^3	Austria, Denmark, Germany, Sweden, Switzerland: 0.1 mg/m^3 Norway, Poland: 0.05 mg/m^3
7440-36-0	Antimony	0.5 mg/m^3	0.5 mg/m^3	Austria, Belgium, Denmark, France, Finland, Germany, Hungary, Netherlands, Norway, Poland, Sweden, UK: 0.5 mg/m^3
7440-38-2	Arsenic	0.01 mg/m^3	0.01 mg/m^3	Germany, MAK – 1 mg/m^3 Austria, Belgium, Finland, Japan, Holland, Czechoslavakia, Hungary and Poland - 0.5 mg/m^3 Italy – 0.25 mg/m^3 Switzerland, Canada (Alberta & others) – 0.2 mg/m^3 Sweden – 0.05 mg/m^3 Canada (B.C.), Denmark = 0.01 mg/m^3, K1

Engineering Controls: Local exhaust ventilation is recommended if significant dusting occurs or fumes are generated. Otherwise, use general exhaust ventilation.

Respiratory Protection: Not normally needed. Maintain airborne contaminant concentrations below guidelines listed above. Use an appropriate approved air-purifying respirator equipped with HEPA cartridges/canisters where there is the potential for exceeding established occupational exposure limits.

Eye/Face Protection: Use safety glasses.

Hand Protection: Not normally needed

Skin Protection: Not normally needed.

Hearing Protection: Not normally needed. During firing use hearing protection.

General Hygiene: Do not eat, drink, or smoke while using this product. Wash hands thoroughly after use.

9. PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	*VALUE*	*PROPERTY*	*VALUE*
Appearance:	Round or cylindrical projectile(s) – gray	*Physical State:*	Solid
Odor:	None	*Odor Threshold:*	None
Boiling Point (°F):	Not applicable	*Melting point:*	Not applicable
Vapor Pressure (mm Hg):	Not applicable	*Freezing point:*	Not applicable
Vapor Density(air = 1):	Not applicable	*Bulk Density*	Not applicable
Specific gravity (g/cc):	Not applicable	*Viscosity (cps):*	Not applicable
pH:	Not applicable	*Decomposition Temperature:*	Not applicable
Solubility in Water (20 °C):	Insoluble	*Evaporation Rate:*	Not applicable
Volatiles, Percent by volume:	Not applicable	*Octanol/water partition coefficient:*	Not applicable

10. STABILITY AND REACTIVITY

Stability: Stable under normal temperatures and pressure.

Possibility of Hazardous Reactions:	Hazardous polymerization will not occur
Incompatible Materials:	Acids and caustics
Hazardous Decomposition Products:	Metals may liberate hydrogen gas from reaction with acids. Metal oxides, lead dust/fume
Conditions to Avoid:	Contact with incompatible materials.

11. TOXICOLOGICAL INFORMATION

Potential Routes of Entry: Inhalation, Skin, and by Ingestion.

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.

PRODUCT		COMPONENTS		
		Lead	Arsenic	Antimony
Inhalation LC_{50}	Particles generated from firing may be slightly toxic	No data	No data	No data
Skin Contact LD_{50}	Skin absorption unlikely	No data	No data	No data
Ingestion LD_{50}	Ingestion unlikely	No data	763 mg/kg (rat)	7 g/kg (rat)
Irritation	Particles generated from firing may be slightly irritating to the eyes	Not irritating	No data	No data
Sensitization	Sensitization to this Product has not been reported	No data	No data	No data

Effects Of Acute Exposure:

Other Adverse Effects:

Target Organ Toxicity:	Lead has caused nervous, hematopoietic and renal system damage in humans and laboratory animals. Arsenic inhalation has caused peripheral neuropathy in humans.
Reproductive Toxicity:	Lead has been shown to reduce male reproductive function in humans and laboratory animals.
Teratogenicity (Birth Defects):	Lead has been shown to affect fetal development; changes including birth defects have been reported.
Mutagenicity:	Lead has been shown to be mutagenic in several *in vitro* assays. Human and animal data show that inhaled inorganic arsenic is clastogenic (damages chromosomes).
Carcinogenicity:	IARC and US EPA list lead and lead compounds as probable human carcinogens (Group 2A) based on sufficient evidence from animal studies and limited evidence from human studies (epidemiology). NTP classifies lead and lead compounds as reasonably anticipated to be human carcinogens. Inorganic arsenic is causally associated with lung cancer via inhalation and skin cancer by ingestion. Arsenic is listed as a known human carcinogen by IARC (Group 1), OSHA, NTP and EPA.

12. ECOLOGICAL INFORMATION

Environmental Effects:

PRODUCT: Product has not been tested for environmental properties. Lead shot has been shown to be toxic to aquatic species.

COMPONENTS:

Lead:	Bluegill sunfish, 48 hr. LC_{50} = 2-5 mg/l. Lead is toxic to waterfowl.
Arsenic:	*Daphnia* magna, 48 hr. LC_{50} = 3.8 mg/L; Fathead minnow, 96 hr LC_{50} = 9.9 mg/L

Environmental Fate:

MOBILITY:	Dissolved lead from degraded shot and slugs may migrate through soil.
PERSISTANCE/DEGRADABILITY:	Not biodegradable. Shot and slugs may fragment and decompose in soil leading to accumulation of lead.
BIOACCUMULATION:	No data

13. DISPOSAL CONSIDERATIONS

Care must be taken to prevent environmental contamination from the use of this material. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding the treatment, storage and disposal for hazardous and nonhazardous wastes.

14. TRANSPORT INFORMATION

Regulatory Information for US DOT, IATA, IMO, and ADR:

This product is not regulated

Proper Shipping Name:	None
Hazard Class Number and Description:	None
UN Identification Number:	None
Packing Group:	None
DOT Label(s) Required:	None
Marine Pollutant:	No information

15. REGULATORY INFORMATION

US FEDERAL

TSCA	The components of this product are listed on the Toxic Substance Control Act inventory.				
CERCLA:	Antimony, R.Q. = 5000 lbs.; Lead, R.Q. = 10 lbs.; Arsenic, R.Q. = 1 lb. (No reporting is required if diameter of the pieces of metal is equal to or exceeds 100 micrometers (0.004 inches)).				
SARA 313:	Antimony, Arsenic, Lead and Lead compounds				
SARA 311/312:	*Health*:	Acute – No Chronic - Yes	*Fire:* No	*Reactivity:* None	*Release of Pressure*: No
SARA 302 EHS List:	None of the components of this product are listed.				

*RQ = Reportable Quantity

STATE RIGHT-TO-KNOW STATUS

Component	California*	New Jersey	Pennsylvania	Massachusetts	Michigan
Lead	X	X	X	X	X
Antimony	Not listed	X	X	X	X
Arsenic	X	X	X	X	X

*Proposition 65

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65)

Warning! This product contains detectable amounts of a chemical known to the State of California to cause cancer and/or birth defects or other reproductive harm.

GHS CLASSIFICATION

Carcinogenicity Category 1A
Reproductive Toxicity Category 1A
STOT RE Category 1
Hazardous to the Aquatic Environment, Chronic Category 2

EUROPEAN REGULATIONS

All chemical components listed on EINECS

Lead metal is included on the REACH Candidate List of Substances of Very High Concern for Authorisation (Toxic to Reproduction, Category 1A; Article 57c)

Restrictions on use: this substance is subject to REACH restrictions according to:

- Annex XVII, Entry No. 30 (regarding supply to the general public)
- REACH Annex XVII, Entry No. 63.

Hazard Classification

Danger Symbols: T, N

Risk Phrases: R45 (Cat.1), R60/61 (Cat. 1), R64, R48, R51/53

Safety Phrases: S2, S20/21, S22, S38, S39, S51, S61

German WGK Classification: Not known.

CANADIAN REGULATIONS

DSL/NDSL Inventory: The components of this product are on the DSL

IDL: Antimony, Arsenic, Lead

CEPA PRIORITIES LIST: None

WHMIS: This product is not subject to WHMIS. It is considered to be a manufactured article.

JAPANESE REGULATIONS

Existing National Inventory of Chemical Substances (ENCS): The components of this product are Listed

Japanese Priority Assessment Chemical Substances: None of the components of this product s are listed

OTHER INTERNATIONAL CHEMICAL INVENTORIES

Swiss Giftliste List of Toxic Substances:	All Components Listed
Australian Inventory (AICS):	All Components Listed

16. OTHER INFORMATION

REVISIONS: 05
DATE: 02/28/2019
PREPARED BY: Olin Winchester, LLC
OTHER: Additional information available from: www.winchester.com

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