

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: Olin Corporation – Winchester Division, Inc.

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: 1/31/2017

Revision No.: 02

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

Not Regulated

CANADA (WHMIS) SYMBOLS

This Product is not subject to WHMIS

GHS HAZARD SYMBOLS





<u>GHS Classifications:</u>	Carcinogenicity Category 1A Reproductive Toxicity Category 1A STOT RE Category 1 Hazardous to the Aquatic Environment, Chronic Category 2
<u>Signal Word:</u>	Danger
<u>Hazard Statements:</u>	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
<u>Target organs:</u>	Nervous, blood forming and renal systems
<u>Precautionary Statements:</u>	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 /w hile 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
<u>GHS Pictograms:</u>	Specific Target Organ Toxicity; Pictogram Code: GHS08 Environment; Pictogram Code: GHS09
<u>EU Classifications:</u>	
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 Physicians:

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

Unusual Fire and Explosion Hazards:

None

Extinguishing Media:

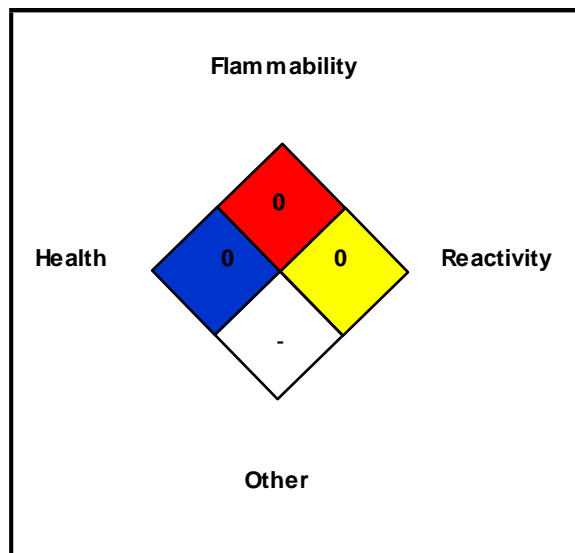
Not Applicable - Choose extinguishing media suitable for surrounding materials.

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

10. STABILITY AND REACTIVITYStability:

Stable under normal temperatures and pressure.

Possibility of Hazardous Reactions:Incompatible Materials:Hazardous Decomposition Products:Conditions to Avoid:

Hazardous polymerization will not occur

Acids and caustics

Metals may liberate hydrogen gas from reaction with acids. Metal oxides, lead dust/fume

Contact with incompatible materials.

11. TOXICOLOGICAL INFORMATIONPotential 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 INFORMATIONEnvironmental 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. LC₅₀ = 2-5 mg/l. Lead is toxic to waterfowl.
Arsenic: *Daphnia magna*, 48 hr. LC₅₀ = 3.8 mg/L; Fathead minnow, 96 hr LC₅₀ = 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 INFORMATIONRegulatory 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 INFORMATIONUS 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:	<u>Health:</u>	Acute – No Chronic - Yes	<u>Fire:</u> No	<u>Reactivity:</u> None	<u>Release of Pressure:</u> 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

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 know n.

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: 02

PREPARED BY: Olin Corporation

OTHER: Additional information available from: www.winchester.com

NOTICE: THE INFORMATION IN THIS MSDS 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. OLIN BELIEVES THIS INFORMATION TO BE RELIABLE AND CURRENT AS OF THE DATE OF PUBLICATION, BUT MAKES NO WARRANTY THAT IT IS.