1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: BULLETS, FAIL SAFE
CAS Number: Mixture – Metal Alloy
Synonyms: None
Product Use: Projectile
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
SDS Control Group: 618-258-3507 (Technical Information Only)

Olin SDS No.: 00088.0001 Issue Date: 04/29/2015
Revision Date: 01/31/2017
Revision No.: 02

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: PARTICLES FROM FIRING MAY BE HARMFUL IF INHALED. DO NOT TAKE INTERNALLY.

US DOT SYMBOLS: Not Regulated
CANADA (WHMIS) SYMBOLS: This Product is not subject to WHMIS
GHS HAZARD SYMBOLS:
GHS Classifications:   
STOT RE Category 2  
Reproductive Toxicity Category 2  
Aquatic Environment, Chronic II  

Signal Word:  
Warning  

Hazard Statements:  
H373: May cause damage to nervous system, kidney, and hematopoietic system through prolonged or repeated exposure  
H361: Suspected of damaging fertility or the unborn child  
H411: Toxic to aquatic life with long lasting effects  

Target organs:  
Nervous, renal and hematopoietic systems  

Precautionary Statements:  
P102: Keep out of reach of children  
P260: Do not breathe dust/fume/gas/mist/vapors/spray  
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 protective gloves/protective clothing/eye protection/face protection  

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

EU Classifications:  
Hazard Symbols  
Xn, N  
Risk Phrases  
R48: Danger of serious damage to health by prolonged exposure  
R62/63: Possible risk of impaired fertility or harm to the unborn child  
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  
S39: Wear eye/face protection  
S51: Use only in well-ventilated areas  
S61: Avoid release to the environment  

SDS No.: 000088.0001
Health Hazards or Risks From Exposure
This product is composed of a finished metal alloy bullet. Therefore, under normal handling of this product, no exposure to any harmful materials are likely to occur. When the bullet is fired, a small amount of particles may be generated which may be slightly irritating to the eyes and the respiratory tract. The particles may contain trace amounts of this harmful substance:

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.

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>% By Weight</th>
<th>CAS Number</th>
<th>EINECS/ ELINCS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>40 - 70</td>
<td>7439-92-1</td>
<td>231-100-4</td>
</tr>
<tr>
<td>Bronze (CDA 226 Alloy)</td>
<td>10 – 30</td>
<td>Mixture</td>
<td>Mixture</td>
</tr>
<tr>
<td>Iron</td>
<td>5 – 10</td>
<td>7439-89-6</td>
<td>231-096-4</td>
</tr>
</tbody>
</table>

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, cardiovascular and respiratory disease.

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

5. FIRE FIGHTING MEASURES

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive</td>
<td>No</td>
<td>Flammable</td>
<td>No</td>
</tr>
<tr>
<td>Combustible</td>
<td>Not applicable</td>
<td>Pyrophoric</td>
<td>No</td>
</tr>
<tr>
<td>Flash Point (°C):</td>
<td>Not applicable</td>
<td>Burning Rate of Material:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower Explosive Limit:</td>
<td>Not applicable</td>
<td>Autoignition Temp.:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper Explosive Limit:</td>
<td>Not applicable</td>
<td>Flammability Classification: (defined by 29 CFR 1910.1200)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

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

![NFPA Rating System Diagram]

### HMIS RATING SYSTEM

<table>
<thead>
<tr>
<th>HEALTH HAZARD (BLUE)</th>
<th>0*</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABILITY HAZARD (RED)</td>
<td>0</td>
</tr>
<tr>
<td>PHYSICAL HAZARD (YELLOW)</td>
<td>0</td>
</tr>
</tbody>
</table>

**PROTECTIVE EQUIPMENT**

<table>
<thead>
<tr>
<th>EYES</th>
<th>PPE CODE</th>
<th>RESPIRATORY</th>
<th>HEARING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td></td>
<td>See Sect 8</td>
</tr>
</tbody>
</table>

**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:

<table>
<thead>
<tr>
<th>CAS #</th>
<th>CHEMICAL NAME</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>INTERNATIONAL OELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7439-92-1</td>
<td>Lead</td>
<td>0.05 mg/m³</td>
<td>0.05 mg/m³</td>
<td>Austria, Denmark, Germany, Sweden, Switzerland: 0.1 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Norway, Poland: 0.05 mg/m³</td>
</tr>
<tr>
<td>Mixture</td>
<td>Bronze (CDA 226 Alloy)</td>
<td>None established</td>
<td>None established</td>
<td>None established</td>
</tr>
<tr>
<td>7439-89-6</td>
<td>Iron</td>
<td>None established</td>
<td>None established</td>
<td>None established</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Cylindrical projectile – gray</td>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
<td>Odor Threshold</td>
<td>None</td>
</tr>
<tr>
<td>Boiling Point (°F)</td>
<td>Not applicable</td>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>Not applicable</td>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Density (air = 1)</td>
<td>Not applicable</td>
<td>Bulk Density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Specific gravity (g/cc)</td>
<td>Not applicable</td>
<td>Viscosity (cps)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
<td>Decomposition Temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility in Water (20 °C)</td>
<td>Insoluble</td>
<td>Evaporation Rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Volatiles, Percent by volume</td>
<td>Not applicable</td>
<td>Octanol/water partition coefficient</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

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.

Effects Of Acute Exposure:

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>SELECTED COMPONENTS</th>
<th>Lead</th>
<th>Bronze</th>
<th>Iron</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation LC₅₀</td>
<td>Particles generated from firing may be slightly toxic</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Skin Contact LD₅₀</td>
<td>Skin absorption unlikely</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Ingestion LD₅₀</td>
<td>Ingestion unlikely</td>
<td>No data</td>
<td>No data</td>
<td>30 g/kg (rat)</td>
</tr>
<tr>
<td>Irritation</td>
<td>Particles generated from firing may be slightly irritating to the eyes</td>
<td>Not irritating</td>
<td>No data</td>
<td>Eye irritant</td>
</tr>
<tr>
<td>Sensitization</td>
<td>Sensitization to this Product has not been reported</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
</tbody>
</table>

Other Adverse Effects:

Target Organ Toxicity: No reported target organ toxicity from this product. Lead has caused nervous system, kidney and hematopoietic system damage in humans and laboratory animals.

Reproductive Toxicity: This product is not known or reported to cause reproductive effects. Lead has been shown to reduce male reproductive function in humans and laboratory animals.

Teratogenicity (Birth Defects): This product is not known or reported to cause developmental toxicity. Lead has been shown to affect fetal development; changes including birth defects have been reported.

Mutagenicity: This product is not known or reported to be mutagenic. Lead has been shown to be mutagenic in several in vitro assays.

Carcinogenicity: This product is not listed as a carcinogen by OSHA, NTP or IARC. IARC lists lead as possibly carcinogenic to humans, group 2B.

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. LC₅₀ = 2-5 mg/l. Lead is toxic to waterfowl.
Environmental Fate:

MOBILITY: Dissolved lead from degraded bullets may migrate through soil.

PERSISTANCE/DEGRADABILITY: Not biodegradable. Bullets 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: Lead, R.Q. = 10 lbs. (No reporting is required if diameter of the pieces of metal is equal to or exceeds 100 micrometers (0.004 inches)).

SARA 313: Lead and Lead compounds

SARA 311/312:

<table>
<thead>
<tr>
<th>Component</th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
<th>Release of Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acute – No</td>
<td>No</td>
<td>None</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Chronic - Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SARA 302 EHS List: None of the components of this product are listed.

*RQ = Reportable Quantity

STATE RIGHT-TO-KNOW STATUS

<table>
<thead>
<tr>
<th>Component</th>
<th>California</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Massachusetts</th>
<th>Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Bronze (CDA 226 Alloy)</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Iron</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

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

STOT RE Category 2
Reproductive Toxicity Category 2
Aquatic Environment, Chronic II

EUROPEAN REGULATIONS

All chemical components listed on EINECS

Hazard Classification
Danger Symbols: Xn, N
Risk Phrases: R48, R62/63, R51/53
Safety Phrases: S2, S20/21, S22, S39, S51, S61
German WGK Classification: Not known.

CANADIAN REGULATIONS

DSL/NDSL Inventory: The components of this product are on the DSL
IDL: 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 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 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. OLIN BELIEVES THIS INFORMATION TO BE RELIABLE AND CURRENT AS OF THE DATE OF PUBLICATION, BUT MAKES NO WARRANTY THAT IT IS.