MATERIAL SAFETY DATA SHEET

AMES METAL PRODUCTS CO.

PRODUCT(S): LAWRENCE BRANDMAGNUM SHOT, COPPER PLATED MAGNUM SHOT, CHILLED LEAD SHOT (ALL SIZES/NUMBERS) CODES: 2001/2002/

NFPA/HMIS HAZARD CODES:

- HEALTH: 1/1
- FIRE: 0/0
- REACTIVITY: 0/0
- SPECIAL: NA

**SECTION I - IDENTIFICATION**

MANUFACTURER'S NAME: AMES METAL PRODUCTS CO.

2211 South Foster Ave
Wheeling, Illinois 60090

Phone 847-749-1672
Fax 847-670-1092

INFORMATION PHONE: Toll Free/Outside IL - 1-800-255-6937

EMERGENCY PHONE: CHEMREC: 800-422-9300

PREPARATION DATE: July 1, 2012

INGREDIENT | CAS NO. | US-NIOSH RTLCS NO. | US OSHA 8-HR AL | US OSHA 8-HR PEL | AIHA 8-HR TLV | WT. PERCENT (1)
--- | --- | --- | --- | --- | --- | ---
Lead | 7439-92-1 | OF7252000 | 0.03 mg/m^3 | 0.05 mg/m^3 | 0.05 mg/m^3 | 90.0 | 98.9
Antimony | 7440-36-9 | CC4025000 | NE | 0.5 mg/m^3 | 0.5 mg/m^3 | 1.0 | 8.0
Arsenic | 7440-38-2 | CO0225000 | 0.005 mg/m^3 | 0.01 mg/m^3 | 0.01 mg/m^3 | 0.1 | 2.0

NOTE(S): (1) Product (alloy) specific dependent.

NE = None Established
AL = Action Level
PEL = Permissible Exposure Limit
TLV = Threshold Limit Value

**SECTION II - PHYSICAL DATA**

APPEARANCE & ODOR (AT NORMAL CONDITIONS):
Solid spheres - no odor; Chill & Magnum Shot - soft gray color, Copper Plated Magnum Shot - copper color.

SPECIFIC GRAVITY (H2O = 1):
Approximately 11.18

MELTING POINT (DEGREES C):
Alloy Dependent-Constituents: Lead-328 Antimony-630 Arsenic-Sublimes without melting at 613

BOILING POINT (DEGREES C):
Information not available

SOLUBILITY IN WATER:
Insoluble

**SECTION IV - FIRE & EXPLOSION HAZARD DATA**

FLASH POINT:
Non-Flammable

FLAMMABLE LIMITS:
Not Applicable

EXTINGUISHING MEDIA:
No specific agents recommended

SPECIAL FIRE FIGHTING PROCEDURES:
If involved in fire, use full protective clothing and NIOSH/MSHA approved self-contained breathing apparatus operated in a positive-pressure mode.

UNUSUAL FIRE & EXPLOSION HAZARDS:
None

**SECTION V - REACTIVITY DATA**

STABILITY:
Stable

CONDITIONS TO AVOID:
Not Applicable

INCOMPATIBILITY:
Strong Oxidizers, Hydrogen Peroxide, potassium nitrate, or permanganates, halogen gases, halides, halogenates, Active Metals - Sodium, Potassium. Powdered lead fused with ammonium nitrate may cause a violent reaction. Strong acids, bases, nascent hydrogen, reducing agents, chlorine, fluorine, and bromine. NEVER mix molten metal with water - it will explode. NEVER put product, by-products, dust or product waste into galvanized or aluminum containers.

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HAZARDOUS DECOMPOSITION PRODUCTS: At temperatures above the melting point, metal oxide fumes may be evolved. Under reducing conditions, such as any strong acid or base plus an active metal, or in the presence of nascent hydrogen, highly toxic stibine gas (TLY = 0.10 ppm) and arsenic gas (TVL = 0.05 ppm) may be evolved.

HAZARDOUS POLYMERIZATION: Will not occur.

NOTE: EXPOSURE TO THIS PRODUCT (AS SHOT) PRESENTS FEW HEALTH HAZARDS IN ITSELF. HOWEVER, NORMAL HANDLING OR PROCESSING OF THIS MATERIAL MAY RESULT IN EXPOSURE TO PRODUCT COMPOUNDS AND/OR DECOMPOSITION PRODUCTS, WHICH MAY PRESENT A POTENTIAL HEALTH HAZARD.

Routes of Entry: Dust/fume inhalation, product/dust ingestion.

Symptoms & Effects of Overexposure: Chronic (prolonged) overexposure to lead can result in systemic lead poisoning with symptoms of metallic taste, anemia, insomnia, weakness, constipation, abdominal pain, gastrointestinal disorders, joint and muscle pains, and muscular weakness, and may cause damage to the blood-forming, nervous, kidney, and reproductive systems. Damage may include reduced fertility in both men and women, damage to the fetus of exposed pregnant women, anemia, muscular weakness & kidney dysfunction. Chronic overexposure to antimony can lead to liver and kidney damage and central nervous system disorders. Antimony can cause eye and skin irritation, and dermatitis. Chronic overexposure to arsenic may result in systemic arsenic poisoning with symptoms of weight loss, nausea, vomiting, diarrhea, weakness, loss of appetite and skin lesions and can cause damage to the liver, kidney and nervous systems. Exposure to arsenic may also present a skin, respiratory tract, lymphocytic system and liver cancer risk, and can cause eye and skin irritation and dermatitis.

Acute (Severe short term) overexposure to lead may lead to clinical nervous system disorders, characterized by drowsiness, seizures, coma & death. It should be recognized that exposures of this magnitude in an industrial environment are extremely unlikely. Acute overexposure to antimony can cause upper respiratory tract irritation and systemic antimony poisoning with symptoms including abdominal cramps, nausea, dizziness, dry throat and various nervous complaints, such as sleeplessness, irritability and muscular pains. Repeated skin contact with antimony may result in dermatitis, and eye contact may cause severe eye irritation. Acute overexposure to arsenic may cause severe irritation of the lungs and upper respiratory tract with symptoms including a perforated nasal septum and central nervous system disorders characterized by seizures, coma and death. Repeated skin contact with arsenic may cause skin irritation, dermatitis or contact dermatitis, and eye contact may cause severe eye irritation.

Medical Conditions Possibly Aggravated by Exposure: Pre-existing conditions of the lungs, diseases of the blood and blood forming organs, kidneys, liver, nervous & possibly reproductive systems.

Carcinogenicity: Arsenic listed as a potential human carcinogen by NTP, IARC, OSHA. IARC classifies "lead and its compounds" as a Group 2B carcinogen (possibly carcinogenic to humans).

Additional Information: Recommended (required at certain contaminant exposure levels under U.S. OSHA Standards - e.g. 29 CFR 1910.1025 [Lead], 1910.1018 [Arsenic]). Attention should be directed to skin, eyes, respiratory tract, blood, kidneys, pulmonary function and neurological health.

Periodic medical examinations should be repeated on an annual basis for those employees exposed to potentially hazardous airborne levels of this product. Please consult the U.S. OSHA Lead Standard (29 CFR 1910.1025) and Arsenic Standard (29 CFR 1910.1018) for specific guidance; periodic medical examinations are required under certain circumstances.

OSHA Biological Limit for Blood Lead Level is a 3 sample/6 month average of 50 mcg per 100g (or higher) of whole blood and/or two (2) consecutive samples of 60 mcg per 100g (or higher). See U.S. OSHA Standard 29 CFR 1910.1025 for further information.

Lead and its compounds has tentatively been classed by the USEPA Carcinogen Assessment Group as a Group B2 Carcinogen (Probable human carcinogen - a combination of sufficient evidence in animals and inadequate data for humans). IARC lists lead and its compounds as a teratogen.

Some animal studies indicate that inhalation of antimony trioxide fume may pose an increased risk of lung cancer. ACGIH identifies antimony trioxide as a class A2 carcinogen (suspected human carcinogen). IARC classifies antimony trioxide as a Group 2B carcinogen (possibly carcinogenic to humans).
EMERGENCY & FIRST AID PROCEDURES:

**SKIN:** Normal hygiene & first-aid procedures - wash with soap and water. If irritation or rash develops or persists get medical attention.

**EYES:** Flush well with running water to remove particulate. If irritation persists get medical attention.

**ACUTE INHALATION:** Remove from exposure. Obtain immediate medical attention. If breathing has stopped, initiate artificial resuscitation.

**INGESTION:** Give water; induce vomiting only in a conscious non-convulsing individual; obtain immediate medical attention.

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**SECTION VI – HEALTH HAZARD DATA (Cont'd)**

**SECTION VII – PROTECTION MEASURES**


**VENTILATION:** For processing operations good general dilution ventilation, or ventilation, as described in "Industrial Ventilation, A Manual of Recommended Practice" by the American Conference of Governmental Industrial Hygienists, is recommended in order to maintain exposure levels below the permissible exposure limits (PEL's) or threshold limit values (TLV's) specified by U.S. OSHA or other local or state regulations.

**PROTECTIVE GLOVES:** Safety glasses or goggles are recommended where the possibility exists of getting dust particles in the eyes. Safety glasses or goggles with faceshield are recommended around molten metal and where excessive metal dust exposure exists.

**OTHER PROTECTIVE EQUIPMENT:** Full protective clothing and shoes are required for employee exposure above the lead and/or Arsenic PEL. Other safety equipment should be worn as appropriate for the work environment. Keep work clothing separate from street clothes. Do not permit eating, drinking, or the use of cosmetics or tobacco products while handling or processing material or in product work areas. Practice good personal hygiene procedures. Wash hands and face thoroughly before eating, drinking, applying cosmetics or using tobacco products. Full protective clothing is to be worn by workers exposed to concentrations of lead and/or arsenic dust/fume above the PEL, and showering is required before changing into street clothes. Keep work clothing separate from street clothes. Work clothes and equipment should remain in designated lead, antimony and arsenic contaminated areas and never taken home or laundered with personal clothing. Avoid inhalation and ingestion of product and activities which generate dust or fume. Keep melting temperatures as low as possible to minimize the generation of fume.

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**SECTION VIII – PRECAUTIONS FOR SAFE HANDLING & USE**

**PRECAUTIONS TO BE TAKEN:** Practice good housekeeping procedures to prevent dust accumulations. Keep material dry. Avoid storage near incompatible materials (See Section V). Keep product away from children and their environment, feed products and food products.

Special attention is drawn to the requirements of the U.S. OSHA Lead Standard (29 CFR 1910.1025), the OSHA Arsenic Standard (29 CFR 1910.1018) and Respirator Standard (29 CFR 1910.134) should airborne exposures exceed the U.S. OSHA Action Level (AL) or PEL. Inadvertent contaminants to product such as moisture, ice, snow, grease or oil can cause an explosion when charged to a molten metal bath or melting furnace (Preheating metal will remove moisture from product).

Do not put product, by-products, dust or product waste into galvanized or aluminum containers.

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**SECTION IX – SPILL OR LEAK PROCEDURES**

**SPILL OR LEAK PROCEDURES:** 1) Material in dust form – minimize exposure. Clean up using dustless methods (e.g. HEPA vacuum). Do not use compressed air. 2) Place in closed labeled containers for recycling or disposal. 3) Keep out of waterways.

Note: Clean-up personnel should wear protective clothing & respiratory protection where dust/fume exposure exists.

For large product users or involving large product quantities, we recommend that the purchaser establish a spill prevention, control and counter measure plan. This plan should include procedures for proper storage as well as clean-up of spills or leaks. The procedures should conform to safe practices and provide for proper recovery and/or disposal. Depending on the quantity spilled, notification to the U.S. National Response Center (800-424-8802) may be required in case of hazardous substances. (See OSHA and USDOT regulations; also various state and local regulations.)

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WASTE DISPOSAL METHODS: May have value on a recycled basis. If disposed of, dispose of in a permitted disposal site in accordance with all federal, state and local disposal or discharge regulations. Under the U.S. Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the Product to determine, at the time of disposal, whether the Product falls under the RCRA as a hazardous waste. This is because Product uses, transformations, synthesis, mixtures, etc. may cause the resulting end-product to be classified as hazardous.

***SECTION X – UNITED STATES SARA TITLE III INFORMATION***

THIS PRODUCT/MIXTURE CONTAINS THE FOLLOWING TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III, OF THE U.S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372. THE PERCENT BY WEIGHT OF EACH TOXIC CHEMICAL AND ITS ASSOCIATED CHEMICAL ABSTRACT SYSTEM (CAS) NUMBER ARE TO BE FOUND IN SECTION II OF THIS MATERIAL SAFETY DATA SHEET.

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>EHS RQ (LBS)</th>
<th>ER TPQ (LBS)</th>
<th>SEC. 313</th>
<th>313 CATEGORY</th>
<th>311/312 CATEGORIES</th>
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<tr>
<td>Lead</td>
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<td>Lead</td>
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<tr>
<td>Antimony</td>
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<td>Not Applicable</td>
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<td>Antimony</td>
<td>H-1, H-2</td>
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<tr>
<td>Arsenic</td>
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<td>Not Applicable</td>
<td>Yes</td>
<td>Arsenic</td>
<td>H-1, H-2</td>
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</tbody>
</table>

---FOOTNOTES---

*1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SECTION 302.
*2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SECTION 302.
*3 = TOXIC CHEMICAL, SECTION 313
*4 = CATEGORY AS REQUIRED BY SECTION 313 (40 CFR 372.62) MUST BE USED ON TOXIC RELEASE FORM.
*5 = HAZARD CATEGORY FOR SARA SECTION 311/312.

HEALTH: H-1 = IMMEDIATE (ACUTE) HEALTH HAZARD
H-2 = DELAYED (CHRONIC) HEALTH HAZARD

PHYSICAL: P-3 = FIRE HAZARD
P-4 = SUDDEN RELEASE OF PRESSURE HAZARD
P-5 = REACTIVE HAZARD

***SECTION XI – UNITED STATES CERCLA SECTION 103 INFORMATION***

THIS PRODUCT/MIXTURE CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE RELEASE REPORTING REQUIREMENTS OF SECTION 302.

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
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<td>Lead</td>
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<tr>
<td>Antimony</td>
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</tr>
<tr>
<td>Arsenic</td>
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</table>

---FOOTNOTES---

*1 = REPORTABLE QUANTITY (80) UNDER CERCLA SECTION 302. SPILLS TO THE ENVIRONMENT EXCEEDING THE REPORTABLE QUANTITY IN ANY 24 HOUR PERIOD MUST BE REPORTED TO THE U.S. NATIONAL RESPONSE CENTER (800-424-8802). NO REPORTING OF RELEASES OF THE HAZARDOUS SUBSTANCE(S) IS REQUIRED IF THE DIAMETER OF THE PIECES OF THE SOLID METAL(S) RELEASED IS EQUAL TO OR EXCEEDS 100 MICROMETERS (0.004 INCHES).

***SECTION XII – TRANSPORTATION INFORMATION***

PROPER SHIPPING NAME: Non-regulated Material
TECHNICAL NAME: NA
HAZARD CLASS: NA
UN NO.: NA
PACKING GROUP: NA
RMP/HHW TRIPONDR GUIDE NUMBER: NA
OTHER: NA

***SECTION XIII – ADDITIONAL INFORMATION***


CANADA – HPA WMMIS LIST: Lead, Antimony, and Arsenic appear on the Canadian HPA WMMIS Chemical List.

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