

## Safety Data Sheet



OPTIMIZED FOR YOUR TARGET™

### Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1 Product identifier

**Product Name** • Barnes Solids TAC-LR

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Relevant identified use(s)** • Long range shooting, dangerous game

#### 1.3 Details of the supplier of the safety data sheet

**Manufacturer** • Barnes Bullets  
PO Box 620  
Mona, UT 84645  
United States  
www.barnesbullets.com  
email@barnesbullets.com

**Telephone (General)** • (435) 856-1000

#### 1.4 Emergency telephone number

**Manufacturer** • (435) 856-1000

### Section 2: Hazards Identification

#### EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

#### 2.1 Classification of the substance or mixture

**CLP** • Not classified

#### 2.2 Label Elements

**CLP**  
**Hazard statements** • No label element(s) required

#### 2.3 Other Hazards

**CLP** • This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

#### United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

#### 2.1 Classification of the substance or mixture

**OSHA HCS 2012** • Not classified

#### 2.2 Label elements

**OSHA HCS 2012****Hazard statements** • No label element(s) required**2.3 Other hazards****OSHA HCS 2012**

- Under United States Regulations (29 CFR 1910.1200(c) - Hazard Communication Standard), the product(s) listed above are exempt as article(s) under stated normal conditions of use.

**Canada**

According to: WHMIS

**2.1 Classification of the substance or mixture****WHMIS**

- Not classified

**2.2 Label elements****WHMIS**

- No label element(s) required.

**2.3 Other hazards****WHMIS**

- Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

**Section 3 - Composition/Information on Ingredients****3.1 Substances**

- Material does not meet the criteria of a substance.

**3.2 Mixtures**

| Composition   |   |                |
|---------------|---|----------------|
| Chemical Name | Identifiers   | %              |
| Copper        | CAS:7440-50-8<br>EC Number:231-159-6                          | 60% TO 63%     |
| Zinc          | CAS:7440-66-6<br>EC Number:231-175-3<br>EU Index:030-001-00-1 | 33.7% TO 37.5% |
| Lead          | CAS:7439-92-1<br>EC Number:231-100-4                          | 2.5% TO 3.7%   |
| Iron          | CAS:7439-89-6<br>EC Number:231-096-4                          | 0% TO 0.35%    |

**Section 4 - First Aid Measures****4.1 Description of first aid measures****Inhalation**

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical

attention.

- Skin**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, move person to fresh air.
- Eye**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms continue, get medical attention.
- Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms continue, get medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

- Under normal conditions of use, no health effects are expected.

#### 4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- No specific actions or treatments recommended related to exposure to this material.

### Section 5 - Firefighting Measures

#### 5.1 Extinguishing media

- Suitable Extinguishing Media**
- In case of fire use media as appropriate for surrounding fire.

- Unsuitable Extinguishing Media**
- No data available

#### 5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- No data available

- Hazardous Combustion Products**
- No data available

#### 5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

### Section 6 - Accidental Release Measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.

- Emergency Procedures**
- No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended.

#### 6.2 Environmental precautions

- Avoid run off to waterways and sewers.

#### 6.3 Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Carefully shovel or sweep up spilled material and place in suitable container.

#### 6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

### Section 7 - Handling and Storage

#### 7.1 Precautions for safe handling

- Handling**
- Use good safety and industrial hygiene practices.

## 7.2 Conditions for safe storage, including any incompatibilities

**Storage**

- Store in a cool, dry place.

## 7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

## Section 8 - Exposure Controls/Personal Protection

### 8.1 Control parameters

| Exposure Limits/Guidelines |        |                                  |   |   |
|----------------------------|--------|----------------------------------|---|---|
|                            | Result | ACGIH                            | NIOSH   | OSHA  |
| Lead<br>(7439-92-1)        | TWAs   | 0.05 mg/m <sup>3</sup> TWA       | 0.050 mg/m <sup>3</sup> TWA   | 50 µg/m <sup>3</sup> TWA  |
| Copper<br>(7440-50-8)      | TWAs   | 0.2 mg/m <sup>3</sup> TWA (fume) | 1 mg/m <sup>3</sup> TWA (dust and mist); 0.1 mg/m <sup>3</sup> TWA (fume) | 0.1 mg/m <sup>3</sup> TWA (fume); 1 mg/m <sup>3</sup> TWA (dust and mist) |

### 8.2 Exposure controls

#### Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

#### Personal Protective Equipment

##### Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment.

##### Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

##### Skin/Body

- No protective clothing expected to be needed.

#### Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

#### Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

## Section 9 - Physical and Chemical Properties

### 9.1 Information on Physical and Chemical Properties

| Material Description              |              |                              |                         |
|-----------------------------------|--------------|------------------------------|-------------------------|
| Physical Form                     | Solid        | Appearance/Description       | Solid brass projectile. |
| Color                             | Data lacking | Odor                         | Data lacking            |
| Odor Threshold                    | Data lacking |                              |                         |
| General Properties                |              |                              |                         |
| Boiling Point                     | Data lacking | Melting Point/Freezing Point | Data lacking            |
| Decomposition Temperature         | Data lacking | pH                           | Data lacking            |
| Specific Gravity/Relative Density | Data lacking | Water Solubility             | Data lacking            |
| Viscosity                         | Data lacking | Explosive Properties         | Data lacking            |
| Oxidizing Properties:             | Data lacking |                              |                         |
| Volatility                        |              |                              |                         |

|                                     |              |               |              |
|-------------------------------------|--------------|---------------|--------------|
| Vapor Pressure                      | Data lacking | Vapor Density | Data lacking |
| Evaporation Rate                    | Data lacking |               |              |
| <b>Flammability</b>                 |              |               |              |
| Flash Point                         | Data lacking | UEL           | Data lacking |
| LEL                                 | Data lacking | Autoignition  | Data lacking |
| Flammability (solid, gas)           | Data lacking |               |              |
| <b>Environmental</b>                |              |               |              |
| Octanol/Water Partition coefficient | Data lacking |               |              |

## 9.2 Other Information

- No additional physical and chemical parameters noted.

## Section 10: Stability and Reactivity

### 10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

- Stable under normal temperatures and pressures.

### 10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

### 10.4 Conditions to avoid

- No data available

### 10.5 Incompatible materials

- No data available

### 10.6 Hazardous decomposition products

- No data available

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

| GHS Properties                | Classification  |
|-------------------------------|---|
| Respiratory sensitization     | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| Serious eye damage/Irritation | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| Acute toxicity                | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| Aspiration Hazard             | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| Carcinogenicity               | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| Skin corrosion/Irritation     | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |

|                                  |   |
|----------------------------------|---|
| <b>Skin sensitization</b>        | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| <b>STOT-RE</b>                   | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| <b>STOT-SE</b>                   | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| <b>Toxicity for Reproduction</b> | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |
| <b>Germ Cell Mutagenicity</b>    | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking |

## Potential Health Effects

### Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

### Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

### Eye

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

### Ingestion

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Under normal conditions of use, no health effects are expected.

### Carcinogenic Effects

- This material does contain a component that may cause cancer, however due to the form of the product, exposure to the potentially carcinogenic components is not expected.

| <b>Carcinogenic Effects</b> |            |                              |   |
|-----------------------------|------------|------------------------------|---|
|                             | <b>CAS</b> | <b>IARC</b>                  | <b>NTP</b>                                    |
| Lead                        | 7439-92-1  | Group 2A-Probable Carcinogen | Reasonably Anticipated to be Human Carcinogen |

## Section 12 - Ecological Information

### 12.1 Toxicity

- Material data lacking.

### 12.2 Persistence and degradability

- Material data lacking.

### 12.3 Bioaccumulative potential

- Material data lacking.

### 12.4 Mobility in Soil

- Material data lacking.

### 12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been conducted.

### 12.6 Other adverse effects

- No studies have been found.

## Section 13 - Disposal Considerations

### 13.1 Waste treatment methods

#### Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

#### Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## Section 14 - Transport Information

|           | 14.1 UN number | 14.2 UN proper shipping name | 14.3 Transport hazard class(es) | 14.4 Packing group | 14.5 Environmental hazards |
|-----------|----------------|------------------------------|---------------------------------|--------------------|----------------------------|
| DOT       | NDA            | Bullets/Cores                | NDA                             | NDA                | NDA                        |
| TDG       | NDA            | Bullets/Cores                | NDA                             | NDA                | NDA                        |
| IMO/IMDG  | NDA            | Bullets/Cores                | NDA                             | NDA                | NDA                        |
| IATA/ICAO | NDA            | Bullets/Cores                | NDA                             | NDA                | NDA                        |

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • Data lacking.

## Section 15 - Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

| Inventory |           |            |             |           |           |      |
|-----------|-----------|------------|-------------|-----------|-----------|------|
| Component | CAS       | Canada DSL | Canada NDSL | EU EINECS | EU ELNICS | TSCA |
| Copper    | 7440-50-8 | Yes        | No          | Yes       | No        | Yes  |
| Iron      | 7439-89-6 | Yes        | No          | Yes       | No        | Yes  |
| Lead      | 7439-92-1 | Yes        | No          | Yes       | No        | Yes  |
| Zinc      | 7440-66-6 | Yes        | No          | Yes       | No        | Yes  |

## Canada

### Labor

#### Canada - WHMIS - Classifications of Substances

|          |           |   |
|----------|-----------|---|
| • Copper | 7440-50-8 | Uncontrolled product according to WHMIS classification criteria |
| • Lead   | 7439-92-1 | D2A   |
| • Zinc   | 7440-66-6 | Not Listed  |
| • Iron   | 7439-89-6 | Uncontrolled product according to WHMIS                         |

classification criteria

**Canada - WHMIS - Ingredient Disclosure List**

|          |           |            |
|----------|-----------|------------|
| • Copper | 7440-50-8 | 1 %        |
| • Lead   | 7439-92-1 | 0.1 %      |
| • Zinc   | 7440-66-6 | Not Listed |
| • Iron   | 7439-89-6 | Not Listed |

**Environment****Canada - CEPA - Priority Substances List**

|          |           |            |
|----------|-----------|------------|
| • Copper | 7440-50-8 | Not Listed |
| • Lead   | 7439-92-1 | Not Listed |
| • Zinc   | 7440-66-6 | Not Listed |
| • Iron   | 7439-89-6 | Not Listed |

**United States****Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

|          |           |            |
|----------|-----------|------------|
| • Copper | 7440-50-8 | Not Listed |
| • Lead   | 7439-92-1 | Not Listed |
| • Zinc   | 7440-66-6 | Not Listed |
| • Iron   | 7439-89-6 | Not Listed |

**U.S. - OSHA - Specifically Regulated Chemicals**

|          |           |   |
|----------|-----------|---|
| • Copper | 7440-50-8 | Not Listed  |
| • Lead   | 7439-92-1 | 30 µg/m <sup>3</sup> Action Level (See 29 CFR 1910.1025); 50 µg/m <sup>3</sup> TWA (See 29 CFR 1910.1025) |
| • Zinc   | 7440-66-6 | Not Listed  |
| • Iron   | 7439-89-6 | Not Listed  |

**Environment****U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

|          |           |            |
|----------|-----------|------------|
| • Copper | 7440-50-8 | Not Listed |
| • Lead   | 7439-92-1 | Not Listed |
| • Zinc   | 7440-66-6 | Not Listed |
| • Iron   | 7439-89-6 | Not Listed |

**U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities**

|          |           |  |
|----------|-----------|--|
| • Copper | 7440-50-8 | 5000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 2270 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)<br>10 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm) |
|----------|-----------|--|



|  |           |   |
|--|-----------|---|
| • Lead   | 7439-92-1 | µm); 4.54 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)   |
| • Zinc   | 7440-66-6 | 454 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 1000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm) |
| • Iron   | 7439-89-6 | Not Listed  |
| <b>U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities</b>        |           |   |
| • Copper   | 7440-50-8 | Not Listed  |
| • Lead   | 7439-92-1 | Not Listed  |
| • Zinc   | 7440-66-6 | Not Listed  |
| • Iron   | 7439-89-6 | Not Listed  |
| <b>U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs</b> |           |   |
| • Copper   | 7440-50-8 | Not Listed  |
| • Lead   | 7439-92-1 | Not Listed  |
| • Zinc   | 7440-66-6 | Not Listed  |
| • Iron   | 7439-89-6 | Not Listed  |
| <b>U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs</b>      |           |   |
| • Copper   | 7440-50-8 | Not Listed  |
| • Lead   | 7439-92-1 | Not Listed  |
| • Zinc   | 7440-66-6 | Not Listed  |
| • Iron   | 7439-89-6 | Not Listed  |
| <b>U.S. - CERCLA/SARA - Section 313 - Emission Reporting</b>                     |           |   |
| • Copper   | 7440-50-8 | 1.0 % de minimis concentration  |
| • Lead   | 7439-92-1 | 0.1 % Supplier notification limit; 0.1 % de minimis concentration (when contained in stainless steel, brass, or bronze)   |
| • Zinc   | 7440-66-6 | 1.0 % de minimis concentration (dust or fume only)  |
| • Iron   | 7439-89-6 | Not Listed  |
| <b>U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing</b>                   |           |   |
| • Copper   | 7440-50-8 | Not Listed  |
| • Lead   | 7439-92-1 | 100 lb RT (this lower threshold does not apply to lead when it is contained in stainless steel, brass or bronze alloy)  |
| • Zinc   | 7440-66-6 | Not Listed  |
| • Iron   | 7439-89-6 | Not Listed  |

## United States - California

### Environment

#### U.S. - California - Proposition 65 - Carcinogens List

|          |           |                                  |
|----------|-----------|----------------------------------|
| • Copper | 7440-50-8 | Not Listed                       |
| • Lead   | 7439-92-1 | carcinogen, initial date 10/1/92 |
| • Zinc   | 7440-66-6 | Not Listed                       |
| • Iron   | 7439-89-6 | Not Listed                       |

#### U.S. - California - Proposition 65 - Developmental Toxicity

|          |           |  |
|----------|-----------|--|
| • Copper | 7440-50-8 | Not Listed                                   |
| • Lead   | 7439-92-1 | developmental toxicity, initial date 2/27/87 |
| • Zinc   | 7440-66-6 | Not Listed                                   |
| • Iron   | 7439-89-6 | Not Listed                                   |

#### U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

|          |           |                 |
|----------|-----------|-----------------|
| • Copper | 7440-50-8 | Not Listed      |
| • Lead   | 7439-92-1 | 0.5 µg/day MADL |
| • Zinc   | 7440-66-6 | Not Listed      |
| • Iron   | 7439-89-6 | Not Listed      |

#### U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

|          |           |                       |
|----------|-----------|-----------------------|
| • Copper | 7440-50-8 | Not Listed            |
| • Lead   | 7439-92-1 | 15 µg/day NSRL (oral) |
| • Zinc   | 7440-66-6 | Not Listed            |
| • Iron   | 7439-89-6 | Not Listed            |

#### U.S. - California - Proposition 65 - Reproductive Toxicity - Female

|          |           |  |
|----------|-----------|--|
| • Copper | 7440-50-8 | Not Listed   |
| • Lead   | 7439-92-1 | female reproductive toxicity, initial date 2/27/87 |
| • Zinc   | 7440-66-6 | Not Listed   |
| • Iron   | 7439-89-6 | Not Listed   |

#### U.S. - California - Proposition 65 - Reproductive Toxicity - Male

|          |           |  |
|----------|-----------|--|
| • Copper | 7440-50-8 | Not Listed                                       |
| • Lead   | 7439-92-1 | male reproductive toxicity, initial date 2/27/87 |
| • Zinc   | 7440-66-6 | Not Listed                                       |
| • Iron   | 7439-89-6 | Not Listed                                       |

## 15.2 Chemical Safety Assessment

- Chemical Safety Assessment is not required.

## 15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

## Section 16 - Other Information

**Revision Date**                      • 09/November/2015

**Preparation Date**                 • 09/November/2015

**Disclaimer/Statement of Liability**

- The information herein is given in good faith but no warranty, expressed or implied, is made.

**Key to abbreviations**

NDA = No Data Available

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