Safety Data Sheet

1. IDENTIFICATION
Product: Tin P/N 900910.901
Product Use: For laboratory use only.

MSDS #: 901154.001
Date: Rev F, January 31, 2013

2. HAZARDS IDENTIFICATION:
Not classified as hazardous per GHS. Not dangerous according to the criteria set by the European Union (EU); not listed in Table 3.1 Annex VI of regulation 1272/2008/EU, as amended. The product is not hazardous in the form in which it is placed on the market and under the normal and recommended conditions of storage and use.

The small quantities supplied in our products are unlikely to cause severe or immediate health effects. Use only as directed and in accordance with safe laboratory practices.

3. COMPOSITION/INFORMATION ON INGREDIENTS:

<table>
<thead>
<tr>
<th>CHEMICAL INGREDIENT NAME</th>
<th>CAS NUMBER</th>
<th>EC NUMBER</th>
<th>% by Weight</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>EU IOELV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tin</td>
<td>7440-31-5</td>
<td>231-141-8</td>
<td>&gt;99</td>
<td>2 mg/m³</td>
<td>2 mg/m³</td>
<td>NA</td>
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</tbody>
</table>

Notes: Tin, provided as 20 mesh grains in an 8 cubic centimeter vial, for use as a temperature calibrant for thermal analysis equipment. Exposure Limits are 8-Hour TWA. (Time Weighted Average) unless designated C (Ceiling) or STEL (Short Term Exposure Limit).

4. FIRST AID MEASURES:
Inhalation: Remove to fresh air.
Skin Contact: Flush with water.
Eye Contact: Immediately flush with water for a minimum of 15 minutes.
Ingestion: Get medical attention.

After following first aid measures, seek medical attention.

5. FIRE-FIGHTING MEASURES:
Flammable Properties: Not flammable.
Extinguishing Media: Dry chemical, carbon dioxide or appropriate foam.
Unique Aspects Contributing To a Fire: None.
Special Fire Fighting Procedures: None.
Note: As in any fire, wear self-contained breathing apparatus, and full protective gear.

6. ACCIDENTAL RELEASE MEASURES: Due to small quantities involved, spills or leaks should not pose a significant problem. Sweep up and place wastes into closed containers for proper disposal.

7. HANDLING AND STORAGE: Handle as directed and in accordance with safe laboratory practices.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:
Handle in accordance with safe laboratory practices.

Respiratory Protection: Not normally needed. If exposure limits are exceeded, use approved particulate respirator.
Eye Protection: Safety glasses with side protection.
Skin Protection: No special requirements. Disposable nitrile are acceptable for light intermittent exposure.
Engineering Controls: No special requirements. Use general or other local exhaust ventilation to meet Exposure Limits.
9. PHYSICAL AND CHEMICAL PROPERTIES:

**Appearance:** Grey grains  
**Physical State:** Solid  
**Flash Point:** NA  
**Vapor Pressure:** NA  
**Odor:** None  
**Explosion Limits:** NA  
**Vapor Density (air=1):** NA  
**pH:** NA  
**Boiling Point:** 4118°F (2507°C)  
**Melting Point:** 449°F (232°C)  
**Solubility in Water:** Insoluble  
**Specific Gravity:** 7.31 g/cm³ at 77 °F (25 °C)  
**Other:** NA

10. STABILITY AND REACTIVITY:

- **Hazardous Polymerization:** ☑Will Not Occur  
- **Stability:** Stable

<table>
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<tr>
<th>Hazardous Decomposition/Combustion Products:</th>
<th>Conditions &amp; Materials to Avoid:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxides of tin.</td>
<td>Strong oxidizing agents, halogens, strong acids, strong bases.</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION:

- **Primary Route(s) of Exposure under Normal Use:** Inhalation.
- **Target Organ(s):** NA
- **Acute Effects:** Elemental tin has low toxicity, but may cause mild irritation.
- **Chronic Effects:** NA
- **Other Information:** Chemical Ingredient(s) not classified as carcinogen(s) by OSHA, IARC, NTP, ACGIH, or California.

12. ECOLOGICAL INFORMATION: NA

13. DISPOSAL CONSIDERATIONS: Consult state, local or national regulations for proper disposal. The U.S. Environmental Protection Agency (EPA) does not classify unused product as hazardous waste.

14. TRANSPORT INFORMATION:

- **IATA/ICAO:** Shipping Name: NA  
- **Hazard Class:** NA  
- **UN/NA #:** NA  
- **Packing Group #:** NA  
- **IMDG:** NA  
- **ADR:** NA

15. REGULATORY INFORMATION:

- **U.S. TOSCA:** Listed.
- **Canada:** This product has been classified according to the hazard criteria of the Controlled Product Registration (CPR) and this SDS contains all the information required by the CPR.

16. OTHER INFORMATION:

<table>
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<tr>
<th>U.S. EPA</th>
<th>National Fire Protection Association Rating</th>
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<tbody>
<tr>
<td>SARA 313 Chemicals: None</td>
<td>4=Severe Hazard HEALTH NA</td>
</tr>
<tr>
<td>CERCLA RQ: None</td>
<td>3=Serious Hazard FLAMMABILITY NA</td>
</tr>
<tr>
<td>2=Moderate Hazard REACTIVITY NA</td>
<td></td>
</tr>
<tr>
<td>1=Slight Hazard OTHER NA</td>
<td></td>
</tr>
<tr>
<td>0=Minimal Hazard</td>
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</tbody>
</table>

Notes, abbreviations and acronyms:

- **ACGIH:** American Conference of Governmental Industrial Hygienists
- **ADR:** European Agreement concerning the International Carriage of Dangerous Goods by Road
- **CAS:** Chemical Abstracts Service (division of the American Chemical Society)
- **EC:** European Commission
- **EU IOELV:** European Union Indicative Occupational Exposure Limit Values
- **GHS:** Globally Harmonized System of Classification and Labeling of Chemicals
- **IATA:** International Air Transport Association
- **IMDG:** International Maritime Code for Dangerous Goods
- **NA:** Not Available
- **OSHA:** Occupational Safety and Health Administration

For laboratory use only. Not for drug, household or other uses.

The information contained herein has been compiled from data presented in various technical sources believed to be accurate. Waters makes no warranties and assumes no liability in connection with the use of this information. It is the user’s responsibility to determine the suitability of this information and to assure the adoption of necessary precautions.

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