

## SAFETY DATA SHEET

Version 4.17  
Revision Date 10/12/2018  
Print Date 10/04/2019

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1 Product identifiers

Product name : Woods metal

Product Number : 244104

Brand : Aldrich

CAS-No. : 76093-98-6

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

Identified uses : Laboratory chemicals, Synthesis of substances

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

Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +1 800-325-5832

Fax : +1 800-325-5052

#### 1.4 Emergency telephone number

Emergency Phone # : +1-703-527-3887 (CHEMTREC)

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Acute toxicity, Dermal (Category 4), H312

Germ cell mutagenicity (Category 2), H341

Carcinogenicity (Category 1B), H350

Reproductive toxicity (Category 2), H361

Specific target organ toxicity - repeated exposure (Category 2), H373

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H302 + H312 + H332

Harmful if swallowed, in contact with skin or if inhaled.

H341

Suspected of causing genetic defects.

H350

May cause cancer.

H361

Suspected of damaging fertility or the unborn child.

H373

May cause damage to organs through prolonged or repeated exposure.

H410

Very toxic to aquatic life with long lasting effects.

**Precautionary statement(s)**

|                    |                                                                                                                            |
|--------------------|----------------------------------------------------------------------------------------------------------------------------|
| P201               | Obtain special instructions before use.                                                                                    |
| P202               | Do not handle until all safety precautions have been read and understood.                                                  |
| P260               | Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.                                                                      |
| P264               | Wash skin 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.                                              |
| P301 + P312 + P330 | IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.                                                 |
| P302 + P352 + P312 | IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell.                                     |
| P304 + P340 + P312 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. |
| P308 + P313        | IF exposed or concerned: Get medical advice/ attention.                                                                    |
| P363               | Wash contaminated clothing before reuse.                                                                                   |
| P391               | Collect spillage.                                                                                                          |
| P405               | Store locked up.                                                                                                           |
| P501               | Dispose of contents/ container to an approved waste disposal plant.                                                        |

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none****3. COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Hazardous components**

| Component                                                                                                                                  | Classification                                                                                                              | Concentration |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Lead</b> Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)    |                                                                                                                             |               |
| CAS-No. 7439-92-1<br>EC-No. 231-100-4                                                                                                      | Acute Tox. 4; Carc. 2; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H302, H351, H372, H410                                | 20 - 30 %     |
| <b>Tin</b>                                                                                                                                 |                                                                                                                             |               |
| CAS-No. 7440-31-5<br>EC-No. 231-141-8                                                                                                      |                                                                                                                             | 10 - 20 %     |
| <b>Cadmium</b> Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH) |                                                                                                                             |               |
| CAS-No. 7440-43-9<br>EC-No. 231-152-8<br>Index-No. 048-002-00-0                                                                            | Acute Tox. 2; Muta. 2; Carc. 1B; Repr. 2; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H330, H341, H350, H361, H372, H410 | 10 - 20 %     |

For the full text of the H-Statements mentioned in this Section, see Section 16.

**4. FIRST AID MEASURES****4.1 Description of first aid measures****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

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**5. FIREFIGHTING MEASURES****5.1 Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

No data available

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

No data available

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**6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.  
For personal protection see section 8.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.

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**7. HANDLING AND STORAGE****7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.  
Provide appropriate exhaust ventilation at places where dust is formed.  
For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place.  
Storage class (TRGS 510): 6.1B: Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

| Component | CAS-No.   | Value                                                                                                                                                                                                                                                       | Control parameters | Basis                                                                                   |
|-----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------|
|           | Remarks   | See 1910.1025                                                                                                                                                                                                                                               |                    |                                                                                         |
| Lead      | 7439-92-1 | TWA                                                                                                                                                                                                                                                         | 0.05 mg/m3         | USA. ACGIH Threshold Limit Values (TLV)                                                 |
|           |           | Confirmed animal carcinogen with unknown relevance to humans                                                                                                                                                                                                |                    |                                                                                         |
|           |           | TWA                                                                                                                                                                                                                                                         | 0.05 mg/m3         | USA. ACGIH Threshold Limit Values (TLV)                                                 |
|           |           | Central Nervous System impairment<br>Hematologic effects<br>Peripheral Nervous System impairment<br>Substances for which there is a Biological Exposure Index or Indices (see BEI® section)<br>Confirmed animal carcinogen with unknown relevance to humans |                    |                                                                                         |
|           |           | TWA                                                                                                                                                                                                                                                         | 0.05 mg/m3         | USA. NIOSH Recommended Exposure Limits                                                  |
|           |           | See Appendix C                                                                                                                                                                                                                                              |                    |                                                                                         |
| Tin       | 7440-31-5 | TWA                                                                                                                                                                                                                                                         | 2 mg/m3            | USA. ACGIH Threshold Limit Values (TLV)                                                 |
|           |           | Pneumoconiosis (or Stannosis)                                                                                                                                                                                                                               |                    |                                                                                         |
|           |           | TWA                                                                                                                                                                                                                                                         | 2 mg/m3            | USA. NIOSH Recommended Exposure Limits                                                  |
|           |           | TWA                                                                                                                                                                                                                                                         | 2 mg/m3            | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants        |
|           |           | PEL                                                                                                                                                                                                                                                         | 2 mg/m3            | California permissible exposure limits for chemical contaminants (Title 8, Article 107) |

Hazardous components without workplace control parameters

#### Biological occupational exposure limits

| Component | CAS-No. | Parameters   | Value    | Biological specimen | Basis                                     |
|-----------|---------|--------------|----------|---------------------|-------------------------------------------|
|           | -       | Lead         | 200 µg/l | In blood            | ACGIH - Biological Exposure Indices (BEI) |
|           | Remarks | Not critical |          |                     |                                           |

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- |                                                 |                                                       |
|-------------------------------------------------|-------------------------------------------------------|
| a) Appearance                                   | Form: Rods<br>Colour: light grey                      |
| b) Odour                                        | No data available                                     |
| c) Odour Threshold                              | No data available                                     |
| d) pH                                           | No data available                                     |
| e) Melting point/freezing point                 | Melting point/range: 73 - 77 °C (163 - 171 °F) - lit. |
| f) Initial boiling point and boiling range      | No data available                                     |
| g) Flash point                                  | No data available                                     |
| h) Evaporation rate                             | No data available                                     |
| i) Flammability (solid, gas)                    | No data available                                     |
| j) Upper/lower flammability or explosive limits | No data available                                     |
| k) Vapour pressure                              | No data available                                     |
| l) Vapour density                               | No data available                                     |
| m) Relative density                             | No data available                                     |
| n) Water solubility                             | No data available                                     |
| o) Partition coefficient: n-octanol/water       | No data available                                     |
| p) Auto-ignition temperature                    | No data available                                     |
| q) Decomposition temperature                    | No data available                                     |

- |                         |                   |
|-------------------------|-------------------|
| r) Viscosity            | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

## 9.2 Other safety information

No data available

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong acids

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Tin/tin oxides, Cadmium/cadmium oxides, Bismuth oxides, Lead oxides

Other decomposition products - No data available

In the event of fire: see section 5

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

No data available

Inhalation: No data available

Dermal: No data available

No data available

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Lead)

NTP: RAHC - Reasonably anticipated to be a human carcinogenThe reference note has been added by TD based on the background information of the NTP. (Lead)

OSHA: OSHA specifically regulated carcinogen (Lead)

#### Reproductive toxicity

No data available

No data available

#### Specific target organ toxicity - single exposure

No data available

**Specific target organ toxicity - repeated exposure**

May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard**

No data available

**Additional Information**

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence (Lead)

Stomach - Irregularities - Based on Human Evidence (Cadmium)

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**12. ECOLOGICAL INFORMATION****12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6 Other adverse effects**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

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**13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

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**14. TRANSPORT INFORMATION****DOT (US)**

UN number: 3288

Class: 6.1

Packing group: II

Proper shipping name: Toxic solid, inorganic, n.o.s. (Lead, Cadmium)

Reportable Quantity (RQ): 40 lbs Reportable Quantity (RQ): 10 lbs

Poison Inhalation Hazard: No

**IMDG**

UN number: 3288

Class: 6.1

Packing group: II

EMS-No: F-A, S-A

Proper shipping name: TOXIC SOLID, INORGANIC, N.O.S. (Lead, Cadmium)

Marine pollutant: yes

**IATA**

UN number: 3288

Class: 6.1

Packing group: II

Proper shipping name: Toxic solid, inorganic, n.o.s. (Lead, Cadmium)

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**15. REGULATORY INFORMATION****SARA 302 Components**

This material does not contain any components with a section 302 EHS TPQ.

### SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

|      | CAS-No.   | Revision Date |
|------|-----------|---------------|
| Lead | 7439-92-1 | 2015-11-23    |

### SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Reportable Quantity : D008 lbs

### Massachusetts Right To Know Components

|      | CAS-No.   | Revision Date |
|------|-----------|---------------|
| Lead | 7439-92-1 | 2015-11-23    |
| Tin  | 7440-31-5 | 1993-02-16    |

### Pennsylvania Right To Know Components

|         | CAS-No.   | Revision Date |
|---------|-----------|---------------|
| Bismuth | 7440-69-9 |               |
| Lead    | 7439-92-1 | 2015-11-23    |
| Tin     | 7440-31-5 | 1993-02-16    |
| Cadmium | 7440-43-9 |               |

### California Prop. 65 Components

, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Lead

| CAS-No.   | Revision Date |
|-----------|---------------|
| 7439-92-1 | 2009-02-01    |

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## 16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

|                 |                                                                    |
|-----------------|--------------------------------------------------------------------|
| Acute Tox.      | Acute toxicity                                                     |
| Aquatic Acute   | Acute aquatic toxicity                                             |
| Aquatic Chronic | Chronic aquatic toxicity                                           |
| Carc.           | Carcinogenicity                                                    |
| H302            | Harmful if swallowed.                                              |
| H312            | Harmful in contact with skin.                                      |
| H330            | Fatal if inhaled.                                                  |
| H332            | Harmful if inhaled.                                                |
| H341            | Suspected of causing genetic defects.                              |
| H350            | May cause cancer.                                                  |
| H351            | Suspected of causing cancer.                                       |
| H361            | Suspected of damaging fertility or the unborn child.               |
| H372            | Causes damage to organs through prolonged or repeated exposure.    |
| H373            | May cause damage to organs through prolonged or repeated exposure. |
| H400            | Very toxic to aquatic life.                                        |
| H410            | Very toxic to aquatic life with long lasting effects.              |
| Muta.           | Germ cell mutagenicity                                             |
| Repr.           | Reproductive toxicity                                              |
| STOT RE         | Specific target organ toxicity - repeated exposure                 |

Further information

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**Preparation Information**

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