Solder Preforms | Engineered Solder Materials

# Safety Data Sheet | Pure Tin

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Description:** Tin wire, bar or preforms. Preforms can be in washer, disc, square, rectangle or customized form.

**MSDS Creation Date:** January 6, 2015

**Manufacturer:**
Array Solders
152 Myrtle Avenue, Jersey City, NJ 07305
Information: (201) 997-1333

**Emergency Phone:**
**CHEMTREC 24 hrs.**
**USA:** 1(800) 424-9300
**Outside USA:** +1(703) 527-3887

## 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**Classification according to Regulation (EC) NO 1272/2008**

GHS08 Health Hazard

Resp. Sens. 1 **H334** May cause allergy or asthma symptoms or breathing difficulties if inhaled.

GHS07

Skin Sens. 1B **H317** May cause an allergic skin reaction.

**Label elements**

**Labeling according to Regulation (EC) No 1272/2008**

The product is classified and labeled according to the CLP regulation.

Hazard pictograms

GHS08

Signal word Danger

Hazard Statements

**H334** May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**H317** May cause an allergic skin reaction.

**Precautionary statements**

**P285** In case of inadequate ventilation wear respiratory protection.

**P280** Wear protective gloves/protective clothing/eye protection/face protection.

**P301+P312** IF SWALLOWED : Call a POISON CENTER or doctor or physician if you feel unwell.

**P304+P340** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**P302+P350** IF ON SKIN: Gently wash with plenty of soap and water.

**P501** Dispose of contents/container in according with local/regional/national regulations.

**Hazard description:**

**WHMIS Hazard Symbols**

D2B- Toxic material causing other toxic effects.

**Classification system:**

**NFPA ratings (scale 0-4 )**

Health = 1
Fire = 0
Reactivity = 0

Health = 1
Fire = 0
Reactivity = 0

**Other hazards**

**Results of PBT and vPvB assessment**

PBT : Not applicable

vPvB: Not applicable

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical characterization: Mixtures**

**Description**: Mixtures of the substances listed below with nonhazardous additions.

| CAS No. | Description | % Range |
|---|---|---|
| CAS: 7440-31-5 | Tin | 99-100% |

EINECS:231-141-8

**Additional information:**

This solder product does not contain any Substance of Very High Concern ( SVHC) on the European Chemicals Agency (ECHA) Candidate list.

## 4. FIRST AIDE MEASURES

**Description of first aid measures**

**After inhalation:** Supply fresh air, consult doctor in case of complaints.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** Seek immediate medical advice.

**Information for doctor:**

Most important symptoms and effects, both acute and delayed. No further relevant information available.

Indication of any immediate medical attention and special treatment needed. No further relevant information available.

## 5. FIRE FIGHTING MEASURES

**Extinguishing media**

**Suitable extinguishing agents:** $CO_2$, sand extinguishing powder. Do not use water.

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

In case of fire, the following can be released:

Carbon monoxide (CO)

Carbon dioxide ($CO_2$)

**Advice for fire fighters**

**Protective equipment:** Wear self-contained respiratory protective device.

## 6. ACCIDENTAL LEAK MEASURES

**Personal precautions, protective equipment and emergency procedures:** Ensure adequate ventilation.

**Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and clearing up:**

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7. HANDLING & STORAGE

**Handling:**

**Precautions for safe handling:** Prevent formation of dust.

**Information about protection against explosions and fires:** No further data.

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

**Storage:**

Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility: not required.

Further information about storage conditions: None.

**Specific end use(s)** No further relevant information available.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Additional information about design of technical systems**: No further data.

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

**Tin 7440-31-5**

| | |
|---|---|
| **PEL** | 2mg/m³ |
| | Metal |
| **REL** | 2mg/m³ |
| **TLV** | 2mg/m³ |
| | Metal |

**Additional information:**

**PEL =** Permissible Exposure Limit (OSHA)

**TLV =** Threshold Limit Value (ACGIH)

**OSHA =** Occupational Safety and Health Administration

**ACGIH =** American Conference of Governmental Industrial Hygienists

**Exposure controls**

**Personal protective equipment:**

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

**Breathing equipment:**

**Exposure controls:** Use appropriate engineering control such as process enclousures, local exhaust ventilation to control airborne levels below recommended exposure limits.

When ventilation is not sufficient to remove airborne levels from the breathing zone, a NIOSH safety approved respirator or self-contained breathing apparatus should be worn. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

**Protection of hands:**

**Protective gloves**

**Material of gloves:**

**Nitrile rubber, NBR**

**Natural rubber, NR**

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and to be observed.

**Eye protection :**

**Face Shield or safety glasses**

## 9. PHYSICAL & CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

**General Information**

**Appearance:**

| | |
|---|---|
| **Form:** | Solid metal in wire and bar |
| **Color:** | Silver grey |
| **Odor:** | Mild |
| **pH-value:** | Not determined. |

**Change in condition**

**Melting point/melting range:** 232°C ( 450 °F )

| | |
|---|---|
| **Flash point :** | Undetermined. |
| **Auto igniting:** | Product is not self igniting. |
| **Danger of explosion:** | Product does not present an explosion hazard. |
| **Density at 20°C ( 68°F ):** | 3.5 g/cm³ ( 29.208 lbs/gal) |

**Solubility in / miscibility with Water:** Insoluble.

**Bulk density at 20 C ( 68 F ):** 4000 Kg/m³

| | |
|---|---|
| **Solids Content:** | 100.00% |
| **Organic Content:** | 0.00% |

## 10. STABILITY & REACTIVITY

**Reactivity**

**Chemical stability:**

Thermal decomposition /conditions to be avoided: No decomposition if used according to specifications.

**Possibility of hazardous reactions:** No dangerous reactions known

**Conditions to avoid:** No further relevant information available.

**Incompatible materials:** Strong acids, strong oxidizers.

**Hazardous decompositions products:** No dangerous decomposition products known.

## 11. TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

**Acute toxicity:**

Primary irritant effect:

On the skin: Irritant to skin and mucous membranes.

On the eye: Irritant effect.

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

**Carcinogenic categories**

**IARC** (International Agency for Research on Cancer)

None of the ingredients is listed.

**NTP** (National Toxicology Program)

None of the ingredients is listed.

## 12. ECOLOGICAL INFORMATION

**Toxicity**

**Aquatic toxicity:** No further relevant information available.

**Additional ecological information:**

**General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**Result of PBT and vPvB assessment**

**PBT:** Not applicable.

**VPvB:** Not applicable.

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Disposal must be made according to official regulations.

**Uncleaned packaging's:**

**Recommendations:** Disposal must be made in accordance to official regulations.

## 14. TRANSPORT INFORMATION

| | |
|---|---|
| **UN- NUMBER** | Not applicable. |
| **DOT, IMDG, ADN, IATA** | Not applicable. |
| **ADR** | Not applicable. |
| **UN proper shipping name** | Not applicable. |
| **DOT, ADN ,ADR** | Not applicable. |
| **IMDG, IATA** | Not applicable. |
| **Transport hazard class (es)** | |
| **DOT, IMDG** | Not applicable. |
| **Class** | Not applicable. |
| **ADR, ADN, IATA** | |
| **Class** | Not applicable. |
| **Packing group** | |
| **DOT, ADR, IMDG, IATA** | Not applicable. |
| **Environmental hazards:** | |
| **Marine pollutant:** | No |
| **Special precautions for user** | Not applicable. |
| **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** | Not applicable. |

## 15. REGULATORY INFORMATION

**Safety, Health and Environmental regulation/ legislation specific for the substance or mixture**

The following information relates to product regulation specific to the USA.

**SARA** (Superfund Amendments and Reauthorization Act)

Section 355 (Extremely hazardous substances):

None of the ingredients is listed

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed

**TSCA** (Toxic Substances Control Act): Canfield Technologies certifies that all components listed below for the subject finished Product are on the TSCA Inventory of chemical Substance and are not subject to any chemical specific regulation under TSCA Section 12(b) export notification requirements delineated at 40 CFR part 707, subpart D.

All ingredients are listed or exempt from listing.

**California Proposition 65**

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity:

None of the ingredients is listed.

**Carcinogenic categories**

**EPA** (Environmental Protection Agency)

NIOSH-CA (NATIONAL Institute for Occupational Safety and Health)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

**CANADA:**

**Workplace Hazardous Materials Identification (WHMIS):**

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR) and the Safety Data Sheet (SDS) contains all of the information required by the CPR.

**Labeling according to Regulation (EC) NO 1272/2008**

The product has classified and labeled according to the CLP regulation.

Hazard pictograms

GHS08

Signal word Danger

Hazard-determining components of labeling:

Gum Rosin

**Hazard statements**

**H334** May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**H317** May cause an allergic skin reaction.

**Precautionary statements**

**P285** In case of inadequate ventilation wear respiratory protection.

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**P501** Dispose of contents/container in according with local/regional/national regulations.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16. OTHER INFORMATION

**Revised Date:** January 6, 2015

**Disclaimer:**

The information and recommendations contained herein are, to the best of Array Solders' knowledge and belief, accurate and reliable as of the date issued. Array Solders does not warrant or guarantee their accuracy or reliability, and Array Solders shall not be liable for any loss or damage arising out of the user thereof. The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to ensure proper health, safety and other necessary information is included on the container. Hazard communication regulations require that employees must be trained on how to use a Safety Data Sheet as a source for hazard information.

**Abbreviations and acronyms:**

**RID:** Regulations Concerning the International Transport of Dangerous Goods by Rail.

**ICAO:** International Civil Aviation Organization.

**ADR:** European Agreement concerning the International Carriage of Dangerous Goods by Road.

**IMDG:** International Maritime Code for Dangerous Goods.

**DOT:** US Department of Transportation.

**IATA:** International Air Transport Association.

**GHS:** Globally Harmonized System of Classification and Labeling of Chemicals.

**NFPA:** National Fire Protection Association (USA).

**HMIS:** Hazardous Materials Identification System (USA).

**WHMIS:** Workplace Hazardous Materials Information System (Canada).

**LC50:** Lethal concentration, 50 percent.

**LD50:** Lethal dose, 50 percent.