

## 1: PRODUCT AND COMPANY IDENTIFICATION

**Trade name: Solder Alloy Containing Lead**

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

**Manufacturer/Supplier:**

Kester Inc.  
800 West Thorndale Avenue  
Itasca, IL 60143  
Tel (630) 616-4000

ITW Specialty Materials (Suzhou) Co., Ltd.  
Heng Qiao Road  
Wujiang Economic Development Zone  
Suzhou, Jiangsu 215200 China  
Tel +86 512 82060808

**Information department:** Product Compliance: EHS\_Kester@kester.com

### 1.4 Emergency telephone number:

CHEMTREC 24-Hour Emergency Response Telephone Number : (800) 424-9300

CHEMTREC 24-Hour Emergency Response (Outside US & Canada) Telephone Number : (703) 527-3887

## 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

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



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

Repr. 1B H360 May damage fertility or the unborn child.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

### 2.2 Label elements

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

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

#### Hazard pictograms



GHS07 GHS08

**Signal word** Danger

#### Hazard-determining components of labeling:

LEAD (Pb)

#### Hazard statements

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

Suspected of causing cancer.

May damage fertility or the unborn child.

**Trade name: Solder Alloy Containing Lead**

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May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements**

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

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN: Wash with plenty of water.

Store in a dry place.

Dispose of contents/container in accordance with local/regional/national/international regulations.

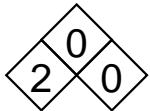
**Hazard description:**

**WHMIS Symbols**



**Classification system:**

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



Health = 2  
Fire = 0  
Reactivity = 0

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

HEALTH	2
FIRE	0
REACTIVITY	0

Health = 2  
Fire = 0  
Reactivity = 0

**2.3 Other hazards**



**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**3: COMPOSITION OF MIXTURE**

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

CAS No.	Description	% Range	
CAS: 7439-92-1 EINECS: 231-100-4	LEAD (Pb)	 Carc. 2, H351; Repr. 1B, H360; STOT RE 2, H373  Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	05 - 100%
CAS: 7440-31-5 EINECS: 231-141-8	TIN (Sn)	0 - 95%	

**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 AID MEASURES**

**4.1 Description of first aid measures**

**General information:** Follow general first aid procedures.

**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.

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**4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available. (Contd. of page 2)

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

## 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

**For safety reasons unsuitable extinguishing agents:** Water

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

In case of fire, the following can be released:

Carbon monoxide (CO)

Nitrogen oxides (NO<sub>x</sub>)

Carbon dioxide (CO<sub>2</sub>)

### 5.3 Advice for firefighters

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

## 6: ACCIDENTAL RELEASE MEASURES

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

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

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

Dispose contaminated material as waste according to item 13.

### 6.4 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 AND STORAGE

**7.1 Precautions for safe handling** Thorough dedusting.

**Information about protection against explosions and fires:** No special measures required.

### 7.2 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:** Keep receptacle tightly sealed.

## 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**Additional information about design of technical systems:** No further data; see item 7.

### 8.1 Control parameters

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

#### 7439-92-1 LEAD (Pb)

PEL Long-term value: 0.05\* mg/m<sup>3</sup>  
\*see 29 CFR 1910.1025

REL Long-term value: 0.05\* mg/m<sup>3</sup>  
\*8-hr TWA, excl. lead arsenate; See PocketGuideApp.C

TLV Long-term value: 0.05\* mg/m<sup>3</sup>  
\*and inorganic compounds, as Pb; BEI

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**7440-31-5 TIN (Sn)**

PEL	Long-term value: 2 mg/m <sup>3</sup> metal
REL	Long-term value: 2 mg/m <sup>3</sup>
TLV	Long-term value: 2 mg/m <sup>3</sup> 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

**8.2 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.

Wash hands before breaks and at the end of work.

**Breathing equipment:**

When ventilation is not sufficient to remove fumes from the breathing zone, a safety approved respirator or self-contained breathing apparatus should be worn.

**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 has to be observed.

**Eye protection:**

Safety glasses



Face Shield with Safety Glasses when refilling.

**9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	Solid Metal preform; wire or bar
<b>Color:</b>	Silver grey
<b>Odor:</b>	Odorless

**pH-value:** Not applicable.

**Change in condition**

**Melting point/Melting range:** 302 °C (576 °F)

**Flash point:** NA °C

**Flammability (solid, gaseous):** Not determined.

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**SAFETY DATA SHEET (SDS)**  
According to 1907/2006/EC, Article 31

Version number 1

Reviewed on 12/17/2015

**Trade name: Solder Alloy Containing Lead**

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**Auto igniting:** Product is not selfigniting.  
**Danger of explosion:** Product does not present an explosion hazard.  
**Vapor pressure:** Not applicable.  
**Density at 20 °C (68 °F):** 10.9 g/cm<sup>3</sup> (90.961 lbs/gal)  
**Vapor density:** Not applicable.  
**Solubility in / Miscibility with Water:** Insoluble.

**10: STABILITY AND REACTIVITY**

**10.1 Reactivity** No further relevant information available.  
**10.2 Chemical stability**  
**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.  
**10.3 Possibility of hazardous reactions** No dangerous reactions known.  
**10.4 Conditions to avoid** No further relevant information available.  
**10.5 Incompatible materials:** Strong acids, strong oxidizers.  
**10.6 Hazardous decomposition products:** No dangerous decomposition products known.

**11: TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**  
**Acute toxicity:**  
 Harmful if swallowed, in contact with skin or if inhaled.  
**Primary irritant effect:**  
**on the skin:** Based on available data, the classification criteria are not met.  
**on the eye:** Based on available data, the classification criteria are not met.  
**Sensitization:** Based on available data, the classification criteria are not met.  
**Additional toxicological information:**

**Carcinogenic categories**

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

7439-92-1	LEAD (Pb)	2B
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**NTP (National Toxicology Program)**

7439-92-1	LEAD (Pb)	R
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**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**12: ECOLOGICAL INFORMATION**

**12.1 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.  
 Danger to drinking water if even small quantities leak into the ground.  
**12.5 Results of PBT and vPvB assessment**  
**PBT:** Not applicable.

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US



**SAFETY DATA SHEET (SDS)**  
According to 1907/2006/EC, Article 31

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**vPvB:** Not applicable.

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**13: DISPOSAL CONSIDERATIONS**

**13.1 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 packagings:**

**Recommendation:** Disposal must be made according to official regulations.

**14: TRANSPORT INFORMATION**

<b>14.1 UN-Number</b>	Not regulated
<b>ADR</b>	Not regulated
<b>IMDG, IATA</b>	Not applicable
<b>14.2 UN proper shipping name</b>	Not regulated
<b>DOT, ADR</b>	Not applicable
<b>IMDG, IATA</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	
<b>DOT, ADR, IMDG, IATA</b>	
<b>Class</b>	Not applicable
<b>14.4 Packing group</b>	Not regulated.
<b>DOT, IMDG, IATA</b>	Not applicable
<b>Marine pollutant:</b>	No
<b>14.6 Special precautions for user</b>	Not applicable.
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>UN "Model Regulation":</b>	Not applicable

**15: REGULATORY INFORMATION**

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

**USA** 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 ingredient is listed.

**Section 313 (Specific toxic chemical listings):**

7439-92-1 | LEAD (Pb)

**TSCA (Toxic Substances Control Act):** Kester certifies that all components listed below for the subject finished product are on the TSCA Inventory of Chemical Substances 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:**

LEAD (Pb)

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**Chemicals known to cause reproductive toxicity:**

LEAD (Pb)

**Carcinogenic categories**

**EPA (Environmental Protection Agency)**

7439-92-1 | LEAD (Pb)

B2

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**CANADA:** Not classified.

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

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

**Hazard pictograms**



GHS07 GHS08

**Signal word** Danger

**Hazard-determining components of labeling:**

LEAD (Pb)

**Hazard statements**

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

Suspected of causing cancer.

May damage fertility or the unborn child.

May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements**

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

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN: Wash with plenty of water.

Store in a dry place.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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

**16: OTHER INFORMATION**

The information contained herein is based on data considered accurate and is offered solely for information, consideration and investigation. Kester extends no warranties, makes no representations and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchaser's use. The data on this Material Safety Data Sheet relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by, or under the direction of, technically qualified personnel who are aware of the hazards involved and the necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Material Safety Data Sheet as a source for hazard information.

**Department issuing Safety Data Sheet (SDS):** Product Compliance / EHS Department

**Contact:** EHS\_Kester@kester.com

**Date of preparation / last revision** 12/17/2015 / -

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (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

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**Trade name: Solder Alloy Containing Lead**

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GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Carc. 2: Carcinogenicity, Hazard Category 2  
Repr. 1B: Reproductive toxicity, Hazard Category 1B  
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2  
**\* Data compared to the previous version altered.**

US