

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

Printing Date: 20.04.2017

Version number 1

Revision: 20.04.2017

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Trade name: AW Lead-free Alloy Solder Wire****Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**Kester Inc.  
800 West Thorndale Avenue  
Itasca, IL 60143  
Tel 00+1 + 630 616 4000ITW Specialty Materials (Suzhou) Co., Ltd.  
Hengqiao Road, Wujiang Economic Development Zone  
Suzhou, Jiangsu Province, China 215200  
Tel +86 512 82060807Kester GmbH  
Ganghofer Strasse 45  
D-82216 Gernlinden Germany  
Tel +49 (0) 8142 4785 0**Further information obtainable from:** 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 &amp; Canada) Telephone Number : (703) 527-3887

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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

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

**Hazard pictograms**

GHS07

**Signal word** Warning**Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

**Precautionary statements**

P280 Wear protective gloves / eye protection / face protection.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P302+P352 IF ON SKIN: Wash with plenty of water.

(Continued on page 2)

GB

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

Printing Date: 20.04.2017

Version number 1

Revision: 20.04.2017

**Trade name: AW Lead-free Alloy Solder Wire**

(Continued from page 1)

**2.3 Other hazards**  
**Results of PBT and vPvB assessment**  
PBT: Not applicable.  
vPvB: Not applicable.

**SECTION 3: Composition/information on ingredients**

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

**Chemical components:**

CAS: 7646-85-7	zinc chloride	⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318	1-<3%
EINECS: 231-592-0		⚠ Acute Tox. 4, H302	

**SECTION 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.  
**4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.  
**4.3 Indication of any immediate medical attention and special treatment needed**  
 No further relevant information available.

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**  
**Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.  
**5.2 Special hazards arising from the substance or mixture** In case of fire, the following can be released:  
**5.3 Advice for firefighters**  
**Protective equipment:** No special measures required.

**SECTION 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:** Pick up mechanically.  
**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.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling** No special measures required.  
**Information about fire - and explosion protection:** No special measures required.

(Continued on page 3)

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

Printing Date: 20.04.2017

Version number 1

Revision: 20.04.2017

**Trade name: AW Lead-free Alloy Solder Wire**

(Continued from page 2)

**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:** None.

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

**SECTION 8: Exposure controls/personal protection**

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

**8.1 Control parameters**

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

**CAS: 7440-36-0 ANTIMONY (Sb)**

WEL	Long-term value: 0.5 mg/m <sup>3</sup> as Sb
-----	---

**CAS: 7646-85-7 zinc chloride**

WEL	Short-term value: 2 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
-----	---

**8.2 Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Wash hands before breaks and at the end of work.

**Respiratory protection:**

Not necessary if room is well-ventilated.

Use suitable respiratory protective device in case of insufficient ventilation.

**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 with Side Shields Required

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**General Information**

**Appearance:**

**Form:** Solid

(Continued on page 4)

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

Printing Date: 20.04.2017

Version number 1

Revision: 20.04.2017

**Trade name: AW Lead-free Alloy Solder Wire**

(Continued from page 3)

<b>Colour:</b>	Silver-coloured
<b>Odour:</b>	Mild
<b>pH-value:</b>	Not applicable.
<b>Change in condition</b>	
<b>Melting point/freezing point:</b>	Undetermined.
<b>Flash point:</b>	NA °C
<b>Flammability (solid, gas):</b>	Not determined.
<b>Auto-ignition temperature:</b>	Product is not selfigniting.
<b>Explosive properties:</b>	Product does not present an explosion hazard.
<b>Vapour pressure:</b>	Not applicable.
<b>Density at 20 °C:</b>	3.62 g/cm <sup>3</sup>
<b>Vapour density</b>	Not applicable.
<b>Solubility in / Miscibility with water:</b>	Insoluble.
<b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	0.4 %
<b>Solids content:</b>	99.6 %

**SECTION 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:** No further relevant information available.**10.6 Hazardous decomposition products:** No dangerous decomposition products known.**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity** Based on available data, the classification criteria are not met.**LD/LC50 values relevant for classification:****CAS: 7646-85-7 zinc chloride**

Oral | LD50 | 350 mg/kg (rat)

**Primary irritant effect:****Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/irritation**

Causes serious eye irritation.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****Germ cell mutagenicity** Based on available data, the classification criteria are not met.

(Continued on page 5)

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

Printing Date: 20.04.2017

Version number 1

Revision: 20.04.2017

**Trade name: AW Lead-free Alloy Solder Wire**

(Continued from page 4)

**Carcinogenicity** Based on available data, the classification criteria are not met.  
**Reproductive toxicity** Based on available data, the classification criteria are not met.  
**STOT-single exposure** Based on available data, the classification criteria are not met.  
**STOT-repeated exposure** Based on available data, the classification criteria are not met.  
**Aspiration hazard** Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:** No further relevant information available.**Ecotoxicological effects:****Remark:** Harmful to fish**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.

Harmful to aquatic organisms

**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number****IMDG, IATA** Void**14.2 UN proper shipping name****ADR, IMDG, IATA** Void**14.3 Transport hazard class(es)****ADR, IMDG, IATA****Class** Void**14.4 Packing group****ADR, IMDG, IATA** Void**14.5 Environmental hazards:** Not applicable.**14.6 Special precautions for user** Not applicable.**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.**UN "Model Regulation":** Void**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

All ingredients are listed on the following Government Inventories:

China: Inventory of Existing Chemical Substances in China (IECSC)

Korea: Korea Existing Chemicals List (ECL)

(Continued on page 6)

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

Printing Date: 20.04.2017

Version number 1

Revision: 20.04.2017

**Trade name: AW Lead-free Alloy Solder Wire**

(Continued from page 5)

Europe: European Inventory of Existing Commercial Chemical Substances (EINECS)  
Japan: Inventory of Existing and New Chemical Substances (ENCS)  
Philippines: Philippine Inventory of Chemicals and Chemical Substances (PICCS)  
USA: TSCA (Toxic Substances Control Act) TSCA Inventory of Chemical Substances

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

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

**Hazard pictograms**



GHS07

**Signal word** Warning

**Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

**Precautionary statements**

P280 Wear protective gloves / eye protection / face protection.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P302+P352 IF ON SKIN: Wash with plenty of water.

**Directive 2012/18/EU**

**Named dangerous substances - ANNEX I** None of the ingredients is listed.

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

**SECTION 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 Safety Data Sheet (SDS) 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 Safety Data Sheet (SDS) as a source for hazard information.

**Department issuing SDS:** Product Compliance / EHS Department

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

**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

IATA: International Air Transport Association

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2