

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

Printing Date: 23.09.2015

Version number 1

Revision: 23.09.2015

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**Trade name: EP256HA Solder Paste**

**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 (800) 253-7837

ITW Specialty Materials (Suzhou) Co., Ltd.  
Heng Qiao Road  
Wujiang Economic Development Zone  
Suzhou, Jiangsu, China 215200  
Tel +86 512 82060807

**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 & 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**



GHS08 health hazard

Carc. 2	H351 Suspected of causing cancer.
Repr. 2	H361 Suspected of damaging fertility or the unborn child.
STOT RE 2	H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 corrosion

Eye Dam. 1	H318 Causes serious eye damage.
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GHS07

Acute Tox. 4	H302 Harmful if swallowed.
Skin Sens. 1	H317 May cause an allergic skin reaction.
Aquatic Chronic 4	H413 May cause long lasting harmful effects to aquatic life.

**2.2 Label elements**

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

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

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**Hazard pictograms**



GHS05 GHS07 GHS08

**Signal word** Danger

**Hazard-determining components of labelling:**

LEAD (Pb)  
Hexyl diglycol  
Rosin, polymerized

**Hazard statements**

H302 Harmful if swallowed.  
H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.  
H351 Suspected of causing cancer.  
H361 Suspected of damaging fertility or the unborn child.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H413 May cause long lasting harmful effects to aquatic life.

**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.  
P321 Specific treatment (see on this label).  
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Additional information:**

Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.

**2.3 Other hazards**

**Results of PBT and vPvB assessment**

**PBT:**

3194-55-6 | 1,2,5,6,9,10- hexabromocyclododecane

**vPvB:** Not applicable.

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

**3.2 Chemical characterisation: Mixtures**

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

**Chemical components:**

CAS: 7440-31-5 EINECS: 231-141-8	TIN (Sn)	30-60%
CAS: 7439-92-1 EINECS: 231-100-4	LEAD (Pb) ⚠ Carc. 2, H351; Repr. 2, H361; STOT RE 2, H373 ⚠ Acute Tox. 4, H302 ⚠ Aquatic Chronic 4, H413	30-60%

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	Rosin, polymerized ⚠ Skin Sens. 1, H317	2.5-5.0%
	Hexyl diglycol ⚠ Eye Dam. 1, H318 ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312	2.5-5.0%
CAS: 7440-22-4 EINECS: 231-131-3	SILVER (Ag) substance with a Community workplace exposure limit	1.0-2.5%
CAS: 3194-55-6 EINECS: 221-695-9	1,2,5,6,9,10- hexabromocyclododecane PBT ⚠ Repr. 2, H361-H362	≤1.0%

**Additional information:** Solder powder is typically 85-92% of the solder paste composition.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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:**

Induce vomiting, if person is conscious. Seek medical help.

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:

Carbon monoxide (CO)

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

Aliphatic aldehydes

**5.3 Advice for firefighters**

**Protective equipment:**

Mouth respiratory protective device.

Wear self-contained respiratory protective device.

**SECTION 6: Accidental release measures**

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

**6.2 Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

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.

Ensure adequate ventilation.

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Scoop up paste and deposit in appropriate containers. Remove residual with glycol ether solvent.

**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**

Prevent formation of aerosols.  
Wash hands after handling paste and before eating or smoking. Care should be taken to remove paste from under fingernails.

**Information about fire - and explosion protection:** 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.  
Store at or near 0-10 degrees C in a dry location.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep container tightly sealed.

**7.3 Specific end use(s)**

Shelf life is 6 months from date of manufacture when stored at 0-10 °C (32-50°F).  
Shelf life is 1 year from date of manufacture when handled properly and held at 4-25 °C (40-77°F).  
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:**

**7440-22-4 SILVER (Ag)**

WEL | Long-term value: 0.1 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.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.

**Respiratory protection:**

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

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**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



Face Shield with Safety Glasses when refilling.

**SECTION 9: Physical and chemical properties**

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

**General Information**

**Appearance:**

**Form:** Pasty  
**Colour:** Silver grey  
**Odour:** Mild  
**pH-value:** Not determined.

**Change in condition**

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** 259 °C

**Flash point:** > 100 °C  
**Self-igniting:** Product is not selfigniting.  
**Danger of explosion:** Product does not present an explosion hazard.  
**Density:** 1.40 g/cm<sup>3</sup>  
**Solubility in / Miscibility with water:** Not miscible or difficult to mix.  
**Solvent content:**  
**Organic solvents:** 0.0 %  
**Solids content:** 96.4 %

**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:** Strong acids, strong oxidizers.

**10.6 Hazardous decomposition products:**

Carbon monoxide and carbon dioxide

When heated, the solvents are evaporated and rosin may be thermally degraded to liberate aliphatic aldehydes, acids, and terpenes.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

Harmful if swallowed.

**Primary irritant effect:****Skin corrosion/irritation** Possible local irritation by contact with flux or fumes.**Serious eye damage/irritation**

Smoke during soldering can cause eye irritation.

Causes serious eye damage.

**Respiratory or skin sensitisation**

May cause an allergic skin reaction.

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

Suspected of causing cancer.

**Reproductive toxicity**

Suspected of damaging fertility or the unborn child.

**STOT-single exposure** Based on available data, the classification criteria are not met.**STOT-repeated exposure**

May cause damage to organs through prolonged or repeated exposure.

**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.**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:**

3194-55-6 | 1,2,5,6,9,10- hexabromocyclododecane

**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.

Disposal must be made according to official regulations.

Consult with the US EPA Guide lines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal.

Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance.

Arrange disposal in accordance with EPA and/or state and local guidelines.

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

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**SECTION 14: Transport information**

14.1 UN-Number	Not regulated
IMDG, IATA	Void
14.2 UN proper shipping name	Not regulated
ADR, ADN	Void
IMDG, IATA	Not regulated
14.3 Transport hazard class(es)	Not regulated
ADR, ADN, IMDG, IATA	
Class	Void
14.4 Packing group	Not regulated
ADR, IMDG, IATA	Void
14.5 Environmental hazards:	Not applicable.
Marine pollutant:	No
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**

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

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

**Hazard pictograms**



GHS05 GHS07 GHS08

**Signal word** Danger

**Hazard-determining components of labelling:**

LEAD (Pb)

Hexyl diglycol

Rosin, polymerized

**Hazard statements**

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

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**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

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

P405 Store locked up.

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P501 Dispose of contents/container in accordance with local/regional/national/international regulations. (Continued from page 7)

**National regulations:****Other regulations, limitations and prohibitive regulations****Substances of very high concern (SVHC) according to REACH, Article 57**

3194-55-6 | 1,2,5,6,9,10- hexabromocyclododecane

**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 MSDS:** 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)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Aquatic Chronic 4: Hazardous to the aquatic environment - Chronic Hazard, Category 4

**\* Data compared to the previous version altered.**