### PRODUCT AND COMPANY IDENTIFICATION

**Trade name:** SN95SB5 Acid Core Lead Free Solder

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

**Manufacturer/Supplier:**
- Kester Inc.
  - 800 West Thorndale Avenue
  - Itasca, IL 60143 USA
  - Tel: (630) 616-4000
  - Tel International: 00 1 630 616-4000
- ITW Specialty Materials (Suzhou) Co., Ltd.
  - Heng Qiao Road
  - Wujiang Economic Development Zone
  - Suzhou, Jiangsu 215200 China
  - Tel: +86 512 82060808
- Kester GmbH
  - Ganghofer Strasse 45
  - D-82216 Germindien Germany
  - Tel: +49 (0) 8142 4785 0

**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

### HAZARDS IDENTIFICATION

2.1 **Classification of the substance or mixture**

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

- **GHS08** Health hazard

- **STOT RE 1 H372** Causes damage to organs through prolonged or repeated exposure.

- **GHS07**

**Skin Irrit. 2 H315** Causes skin irritation.

**Eye Irrit. 2A H319** Causes serious eye irritation.

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 statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.
H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P280 Wear protective gloves.
P280 Wear eye protection / face protection.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see on this label).
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of water.
P362+P364 Take off contaminated clothing and wash it before reuse.
P404 Store in a closed container.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard description:
WHMIS Symbols

![Classification system:]

NFPA ratings (scale 0 - 4)

- Health = 3
- Fire = 1
- Reactivity = 0

HMIS-ratings (scale 0 - 4)

- Health = *3
- Fire = 1
- Reactivity = 0

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

**COMPOSITION OF MIXTURE**

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

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Description</th>
<th>% Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 7440-31-5</td>
<td>TIN (Sn)</td>
<td>85-100%</td>
</tr>
<tr>
<td>EINECS: 231-141-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 7440-36-0</td>
<td>ANTIMONY (Sb)</td>
<td>3.0-5.0%</td>
</tr>
<tr>
<td>EINECS: 231-146-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 3)
**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:** 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.

**FIREFIGHTING MEASURES**

5.1 Extinguishing media  
**Suitable extinguishing agents:**  
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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.

**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.
Ensure adequate ventilation.

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.

**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.

(Contd. on page 4)
7.3 Specific end use(s) No further relevant information available.

EXPOSURE CONTROLS / PERSONAL PROTECTION

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

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-31-5 TIN (Sn)</td>
</tr>
<tr>
<td>PEL</td>
</tr>
<tr>
<td>REL</td>
</tr>
<tr>
<td>TLV</td>
</tr>
<tr>
<td>7440-36-0 ANTIMONY (Sb)</td>
</tr>
<tr>
<td>PEL</td>
</tr>
<tr>
<td>REL</td>
</tr>
<tr>
<td>TLV</td>
</tr>
<tr>
<td>7646-85-7 zinc chloride</td>
</tr>
<tr>
<td>PEL</td>
</tr>
<tr>
<td>REL</td>
</tr>
<tr>
<td>TLV</td>
</tr>
</tbody>
</table>

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.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Breathing equipment:
Not necessary if room is well-ventilated.
Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands:

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

Trade name: SN95SB5 Acid Core Lead Free Solder

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.

PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
General Information
Appearance:
Form: Solid
Color: Grey
Odor: Odorless

pH-value: Not applicable.

Change in condition
Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 2672 °C (4842 °F)

Flash point: >200 °C (>392 °F)

Flammability (solid, gaseous): Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Vapor pressure: Not applicable.

Density: Not determined.
Vapor density Not applicable.

Solubility in / Miscibility with
Water: Insoluble.

Solvent content:
Organic solvents: 0.0 %
Water: 0.2 %
Solids content: 99.6 %

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.
Trade name: SN95SB5 Acid Core Lead Free Solder

10.5 Incompatible materials: No further relevant information available.
10.6 Hazardous decomposition products: No dangerous decomposition products known.

TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Compound</th>
<th>LD50 (mg/kg)</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>7646-85-7 zinc chloride</td>
<td></td>
<td>Oral</td>
</tr>
<tr>
<td>Oral LD50</td>
<td>350</td>
<td></td>
</tr>
<tr>
<td>142-04-1 anilinium chloride</td>
<td></td>
<td>Oral</td>
</tr>
<tr>
<td>Oral LD50</td>
<td>840</td>
<td></td>
</tr>
</tbody>
</table>

Primary irritant effect:
on the skin: Causes skin irritation.
on the eye: Causes serious eye irritation.

Sensitization: Based on available data, the classification criteria are not met.

Additional toxicological information:
Carcinogenic categories

IARC (International Agency for Research on Cancer)

102-71-6 |2,2',4'-nitrilotriethanol | 3

NTP (National Toxicology Program)
None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.

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.
Harmful to aquatic organisms

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

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.
SAFETY DATA SHEET (SDS) 
According to 1907/2006/EC, Article 31
Printing Date 09/12/2016
Version number 4
Reviewed on 09/12/2016
Trade name: SN95SB5 Acid Core Lead Free Solder

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

TRANSPORT INFORMATION

14.1 UN-Number
DOT, ADR, ADN, IMDG, IATA
Not applicable

14.2 UN proper shipping name
DOT, ADR, ADN, IMDG, IATA
Not applicable

14.3 Transport hazard class(es)
DOT, ADR, ADN, IMDG, IATA
Class
Not applicable

14.4 Packing group
DOT, IMDG, IATA
Not applicable

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

UN "Model Regulation":
Not applicable

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):
7440-36-0 ANTIMONY (Sb) 
7647-85-7 zinc chloride

Chemicals known to cause cancer:
anilinium chloride
diethanolamine

Chemicals known to cause reproductive toxicity:
None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency)
7646-85-7 zinc chloride
D, I, II

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

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.
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 statements
H315 Causes skin irritation.
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P362+P364 Take off contaminated clothing and wash it before reuse.
P404 Store in a closed container.
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15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.
Trade name: SN95SB5 Acid Core Lead Free Solder

(Contd. of page 8)

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3
* Data compared to the previous version altered.