

# SAFETY DATA SHEET (SDS)

According to 1907/2006/EC, Article 31

Printing Date 09/12/2016

Version number 4

Reviewed on 09/12/2016

## 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 Gernlinden 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.

(Contd. on page 2)

US

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(Contd. of page 1)

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.

CAS No.	Description	% Range
CAS: 7440-31-5 EINECS: 231-141-8	TIN (Sn)	85-100%
CAS: 7440-36-0 EINECS: 231-146-5	ANTIMONY (Sb)	3.0-5.0%

(Contd. on page 3)

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CAS: 7646-85-7 EINECS: 231-592-0	zinc chloride	 Skin Corr. 1B, H314; Eye Dam. 1, H318  Acute Tox. 4, H302  Aquatic Acute 3, H402	(Contd. of page 2)
			1-<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:**

CO<sub>2</sub>, 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)

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

(Contd. of page 3)

**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:**

**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

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

PEL	Long-term value: 0.5 mg/m <sup>3</sup> as Sb
REL	Long-term value: 0.5 mg/m <sup>3</sup> as Sb
TLV	Long-term value: 0.5 mg/m <sup>3</sup> as Sb

**7646-85-7 zinc chloride**

PEL	Long-term value: 1 mg/m <sup>3</sup> Fume
REL	Short-term value: 2 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
TLV	Short-term value: 2 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup> fume

**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

(Contd. on page 5)

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

(Contd. of page 4)

**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.

(Contd. on page 6)

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(Contd. of page 5)

**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:**

**7646-85-7 zinc chloride**

Oral	LD50	350 mg/kg (rat)
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**142-04-1 anilinium chloride**

Oral	LD50	840 mg/kg (rat)
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**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',2"-nitrilotriethanol	3
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**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.

(Contd. on page 7)

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(Contd. of page 6)

**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 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)

7646-85-7 | 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.

(Contd. on page 8)

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

(Contd. of page 7)

## 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.

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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.

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

## OTHER INFORMATION

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

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

**Date of preparation / last revision** 09/12/2016 / 3

### 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

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)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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

(Contd. on page 9)



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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.**

(Contd. of page 8)

US