

SAFETY DATA SHEET (SDS)

According to 1907/2006/EC, Article 31

Printing Date 07/20/2016

Version number 1

Reviewed on 07/20/2016

PRODUCT AND COMPANY IDENTIFICATION

Trade name: 909HPS SN96.5Ag3.0Cu0.5 Solder Paste

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

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.

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 Warning**Hazard-determining components of labeling:**

Rosin

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US

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Halogenated organic diol

Hazard statements

Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves.
Wear eye protection / face protection.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see on this label).
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard description:

WHMIS Symbols



Classification system:

NFPA ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = *1
Fire = 0
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%

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	Rosin ⚠ Skin Sens. 1, H317	3.0-5.0%
	Proprietary Solvent ⚠ Eye Dam. 1, H318 ⚠ Acute Tox. 4, H312	1-<3%
CAS: 7440-22-4 EINECS: 231-131-3	SILVER (Ag)	1.0-3.0%
	Heterocyclic derivative ⚠ Acute Tox. 3, H301 ⚠ Repr. 2, H361 ⚠ Aquatic Chronic 2, H411 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335 Aquatic Acute 2, H401	0.1-≤1%
	Halogenated organic diol ⚠ Acute Tox. 4, H302; Eye Irrit. 2A, H319; Skin Sens. 1B, H317	0.1-<1%

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.

FIREFIGHTING MEASURES
5.1 Extinguishing media
Suitable extinguishing agents: Use fire fighting measures that suit the environment.

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: Wear self-contained respiratory protective device.

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.

HANDLING AND STORAGE
7.1 Precautions for safe handling Prevent formation of dust.

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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: None.

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

Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

7440-31-5 TIN (Sn)

PEL Long-term value: 2 mg/m³
metal

REL Long-term value: 2 mg/m³

TLV Long-term value: 2 mg/m³
metal

7440-22-4 SILVER (Ag)

PEL Long-term value: 0.01 mg/m³

REL Long-term value: 0.01 mg/m³

TLV Long-term value: 0.1 mg/m³
metal: dust and 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.

Breathing equipment:

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

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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



Face Shield with Safety Glasses when refilling.

PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form: Pasty
Color: Silver grey
Odor: Mild
pH-value: Not applicable.

Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 244 °C (471 °F)

Flash point: Not applicable.

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: 0.8 %

Solids content: 100.0 %

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.

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10.6 Hazardous decomposition products: No dangerous decomposition products known.

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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:

Rosin

Oral	LD50	> 4000 mg/kg (Rat)
Dermal	LD50	>2500 mg/kg (rabbit)

7646-85-7 zinc chloride

Oral	LD50	350 mg/kg (rat)
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Primary irritant effect:

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

on the eye:

Causes serious eye irritation.

Sensitization:

May cause an allergic skin reaction.

Additional toxicological information:

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

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.

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.

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.

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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):

	Proprietary Solvent
7440-22-4	SILVER (Ag)
122-99-6	2-Phenoxyethanol
7646-85-7	zinc chloride
7440-50-8	COPPER (Cu)

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.

7440-31-5	TIN (Sn)
	Proprietary Solvent
7440-22-4	SILVER (Ag)
	Rosin
122-99-6	2-Phenoxyethanol
32647-67-9	Dibenzylidene Sorbitol
7646-85-7	zinc chloride
8001-78-3	Hydrogenated Castor Oil
12125-02-9	ammonium chloride
7440-50-8	COPPER (Cu)
	Heterocyclic derivative

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	Halogenated organic diol
	Proprietary solvent
598-72-1	2-bromopropionic acid
	Proprietary Acid

California Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity:

None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency)

7440-22-4	SILVER (Ag)	D
7646-85-7	zinc chloride	D, I, II
7440-50-8	COPPER (Cu)	D

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 Warning

Hazard-determining components of labeling:

Rosin

Halogenated organic diol

Hazard statements

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves.

Wear eye protection / face protection.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

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IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water.
Store locked up.
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** 07/20/2016 / -**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. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

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

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

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

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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