

MATERIAL SAFETY DATA SHEET according to 1907/2006/EC, article 31

Trade name: MARTIN solder paste lead free, rosin
Article No: VD90.0230
Issue: March 2016

1. Identification of the substance / preparation and of the company

- 1.1 Identification of the substance / preparation**
MARTIN Solder paste lead free print Finepitch 4 rosin based.
Alloy: Sn96.5Ag3Cu0.5
- 1.2 Application of the substance / preparation**
High and low melting point solder pastes for universal application.
- 1.3 Company/undertaking identification**
MARTIN GmbH
Argelsrieder Feld 1b
D-82234 Wessling
Phone: +49-(0)8153-932 93-0
Fax: +49-(0)8153-932 93-9
www.martin-smt.de
- 1.4 Emergency telephone**
Please contact the nearest poison emergency center.

2. Hazards identification

- 2.1 Classification of the substance or mixture:**
Classification according to Regulation (EC) No. 1272/2008 (CLP- Regulation):



GHS05

Eye Dam. 1 H318 Causes serious eye damage

- 2.2 Label elements**
Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.

- 2.3 Hazards pictograms**



GHS05

- 2.4 Signal word**
Danger
- 2.5 Hazard-determining components of labelling**
2- (2-Hexyloxyethoxy)ethanol
- 2.6 Hazard statements**
H318 Causes serious eye damage

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2.7 Precautionary statements

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 or doctor/physician.

2.8 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

3. Composition/Information on ingredients

3.1 Chemical characterization:

Mixtures

3.2 Dangerous components:

CAS: 112-59-4 EINECS: 203-988-3	2-(2-Hexyloxyethoxy)ethanol Eye Dam. 1, H318 Acute Tox. 4, H312	2-5%
CAS: 144413-22-9 ELINCS: 434-230-1	denatured hydrogenated resin acidity Aquatic Chronic 4, H413	3-5%
CAS: 7440-22-4 EINECS: 231-131-3	Silver Substance, with a common limit for the exposition on working place.	2-3,1%

3.3 No dangerous components

CAS: 7440-31-5 EINECS: 231-141-8	tin	82-89%
CAS: 7440-50-8 EINECS: 231-159-6 Reg.nr.:01-2119480154-42	copper	0,1-1%

3.4 Additional information:

For the wording of the listed risk phrases refer to section 16.

4. First aid measures

4.1 After inhalation:

Supply fresh air; consult doctor in case of complaints.

4.2 After Skin Contact:

Immediately rinse with water and soap. Consult doctor in case of complaints

4.3 After eye contact:

Rinse opened eye for several minutes under running water. Consult doctor

4.4 After swallowing:

Immediately rinse with water and drink some water afterwards. Don't be sick, immediately consult doctor. Don't apply something in the mouth at a unconscious person or at emerging seizures.

4.5 Information for doctor

4.5.1 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.5.2 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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5. Firefighting measures

5.1 Suitable extinguishing agents

CO₂, dry chemical, foam

5.2 Special hazards arising from the substance or mixture:

In case of fire, the following can be released.

Toxic metal, oxide fume

5.3 Protective equipment:

Wear self-contained respirator

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

6.2 Environmental precautions

Do not allow to enter sewers/ surface or ground water.

Do not allow material to be released to the environment.

6.3 Methods and material for containment and cleaning up

Take in suitable container for recovery or waste disposal.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

6.4 Additional information

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. Handling and storage

7.1 Handling

7.1.1 Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Open and handle container with care.

Avoid contact with the skin and the eyes. Wear personal protection equipment.

Do not breathe vapors/dust

Wash hands before breaks and immediately after handling the product.

7.1.2 Information about fire - and explosion protection:

No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

7.2.1 Requirements to be met by storerooms and receptacles:

Store in a cool location

Storage temperature: 0-10°C

7.2.2 Information about storage in one common storage facility

Do not store together with food, beverages and animal feed.

See Section 10.5

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7.2.3 Further information on storage conditions:

Keep container tightly sealed.
Store in cool, dry conditions in well-sealed receptacles.
Store under lock and key and with access restricted to technical experts or their assistants only.

7.2.4 Specific end use(s)

No further relevant information available.

8. Exposure controls / personal protection

8.1 Additional information about design of technical facilities:

Technical measures and suitable working methods have a higher priority than personal protection equipment.

8.2 Control parameters

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

7440-31-5 Tin	
TWA (Germany)	See section.IIb
TWA (United Kingdom)	Short-term value: 4 E mg/m ³ Long-term value: 2 E mg/m ³
7440-22-4 silver	
TWA (Germany)	Long-term value: 0,1 E mg/m ³ 8(II);DFG, EU
TWA (United Kingdom)	Short-term value: 0,1 E mg/m ³ Long-term value: 0,1 E mg/m ³
TWA (Switzerland)	Short-term value: 0,8e mg/m ³ Long-term value: 0,1e mg/m ³
7440-50-8 copper	
TWA (Germany)	Long-term value: 0,01 A mg/m ³ as Cu
TWA (United Kingdom)	Short-term value: 4 E mg/m ³ Long-term value: 1 E mg/m ³
TWA (Switzerland)	Short-term value: 0,2 e mg/m ³ Long-term value: 0,1 e mg/m ³ SSc;

8.2.2 Additional information:

The lists valid during the making were used as basis.

8.3 Personal protective equipment:

8.3.1 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.

8.3.2 Respiratory protection:

If you can't use ventilation system or it is insufficient, use self-contained respiratory protective device.

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In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

8.3.3 Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation



Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Recommend:

Butylkautschuk

Penetration time: >120 min

(EN374)

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.

8.3.4 Eye Protection:

Tightly sealed goggles



9. Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Pasty
Colour:	Grey
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	217-227 °C
Boiling point/Boiling range:	260 °C
· Flash point:	141 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	Not determined
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not self-igniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	Not determined
Upper:	Not determined
· Vapour pressure :	Not determined.

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· Density at 20°C:	4-5g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Other information	No further relevant information available.

10. Stability and Reactivity

10.1 Reactivity

No decomposition if used according to specifications.

10.2 Chemical stability

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 acid

Strong oxidation medium

10.6 Hazardous decomposition products:

Irritating and toxic fumes and gases, tin/tin oxides , silver fumes and copper fumes.

11. Toxicological information

11.1 Acute toxicity:

LD/LC50 values relevant for classification:		
112-59-42-(2-Hexyloxyethoxy)ethanol		
Oral	LD50	2655 mg/kg (rat)
Dermal	LD50	1410 mg/kg (rat)
7440-22-4 Silber		
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)

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11.2 Primary irritant effect:

11.2.1 Skin corrosion/irritation

Based on available data, the classification criteria are not met

11.2.2 Serious eye damage/irritation

Causes serious eye irritation

11.2.3 Respiratory or skin sensitization

Based on available data, the classification criteria are not met

11.3 CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

11.3.1 Germ cell mutagenicity

Based on available data, the classification criteria are not met

11.3.2 Carcinogenicity

Based on available data, the classification criteria are not met

11.3.3 Reproductive toxicity

Based on available data, the classification criteria are not met

11.3.4 STOT-single exposure

May cause drowsiness or dizziness

11.3.5 STOT-repeated exposure

Based on available data, the classification criteria are not met

11.3.6 Aspiration hazard

Based on available data, the classification criteria are not met

12. Ecological information

12.1 Toxicity

12.1.1 Aquatic toxicity:

No further relevant information available.

12.1.2 Persistence and degradability

No further relevant information available.

12.2 Behaviour in environmental systems:

12.2.1 Bioaccumulative potential

No further relevant information available

12.2.2 Mobility in soil

No further relevant information available

12.3 General Notes

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.4 Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

12.5 Other adverse effects

No further relevant information available

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13. Disposal considerations

13.1 Waste treatment methods

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Disposal must be made according to official regulations.

13.2 Uncleaned packaging:

Disposal must be made according to official regulations.

14. Transport information

· UN-Number · ADR, IMDG, IATA	Void
· UN proper shipping name · ADR, AND, IMDG, IATA	Void
· Transport hazard class(es) · ADR, AND, IMDG, IATA Class	Void
· Packing group · ADR, IMDG, IATA	Void
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications
· UN "Model Regulation":	Not applicable

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation

Regulation (EG) Nr. 1907/2006 (REACH)
Regulation (EG) Nr. 1272/2008 (CLP)
Directive 67/548/EWG and 1999/45/EG
Directive 98/24/EG (Safety for employees)

15.2 Directive 2012/18/EU

Named dangerous substances - ANNEX I

None of the ingredients is listed.

15.3 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

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16. Other Information

The information in this data sheet is based on our present state of knowledge and is provided without warranty of product features and shall not establish a legally valid contractual relationship.

16.1 Relevant phrases

H312 Harmful in contact with skin
H318 Causes serious eye damage
H413 May cause long lasting harmful effects to aquatic life

16.2 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
Acute Tox. 4: Acute toxicity, Hazard Category 4
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Aquatic Chronic 4: Hazardous to the aquatic environment - Chronic Hazard, Category 4