

Safety data sheet

according to 1907/2006/EC, Article 31 and 453/2010/EC

Printing date 06.04.2016

Version number 2

Revision: 31.08.2015

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

1.1 Product identifier

Trade name: Solder for electronic work acc. to DIN EN 29453
(Art. Nr. 160020_54)


1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

Application of the substance / the mixture

*Brazing alloy
Soldering flux*

1.3 Details of the supplier of the safety data sheet**Manufacturer/Supplier:****HAUPA GmbH & Co. KG**

Königstraße 165-169
D-42853 Remscheid

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1.4 Emergency telephone number: *Not necessary, due to the fact that the product does not need to be labelled.*

SECTION 2: Hazards identification

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

The product is not classified according to the CLP regulation.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 Void**

Hazard pictograms *Void*

Signal word *Void*

Hazard statements *Void*

Additional information:

Contains Rosin. May produce an allergic reaction.

Safety data sheet available on request.

2.3 Other hazards**Results of PBT and vPvB assessment**

PBT: *Not applicable.*


vPvB: *Not applicable.*

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description: *Mixture: consisting of the following components.*

Dangerous components:

CAS: 7440-22-4 EINECS: 231-131-3 Reg.nr.: 01-2119555669-21	silver	substance with a Community workplace exposure limit	0-<4%
CAS: 7440-50-8 EINECS: 231-159-6 Reg.nr.: 01-2119480154-42	copper	substance with a Community workplace exposure limit	0-<2,2%
CAS: 7439-92-1 EINECS: 231-100-4 Reg.nr.: 01-2119513221-59	lead	substance with a Community workplace exposure limit	33-<40%
CAS: 8050-09-7 EINECS: 232-475-7	Rosin	 Skin Sens. 1, H317	<1%

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Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures****General information:** Take affected persons out into the fresh air.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:**

After contact with the molten product, cool rapidly with cold water.

Do not pull solidified product off the skin.

Seek medical treatment.

After eye contact: Rinse opened eye for several minutes under running water.**After swallowing:** Rinse out mouth and then drink plenty of water.**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:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**5.2 Special hazards arising from the substance or mixture** No further relevant information available.**5.3 Advice for firefighters****Protective equipment:** Wear self-contained respiratory protective device.**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Use respiratory protective device against the effects of fumes/dust/aerosol.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.**6.3 Methods and material for containment and cleaning up:** Allow to solidify. Pick up mechanically.**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**

Extractors are required on all machines used for thermal processing or splinter removal processes.

Provide suction extractors if dust is formed.

Any unavoidable deposit of dust must be regularly removed.

Use appropriate industrial vacuum cleaners or central vacuum systems for dust removal.

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:** No special requirements.**Information about storage in one common storage facility:** Store away from foodstuffs.**Further information about storage conditions:** Store in dry conditions.**Storage class:** 10-13**7.3 Specific end use(s)** No further relevant information available.**SECTION 8: Exposure controls/personal protection****Additional information about design of technical facilities:** No further data; see item 7.

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8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
7440-31-5 tin	
MAK (Germany)	vgl. Abschn. IIb
7439-92-1 lead	
MAK (Germany)	vgl. Abschn. XII
AGW (EU)	Long-term value: 0,15 mg/m ³
7440-22-4 silver	
AGW (Germany)	Long-term value: 0,1 E mg/m ³ 8(II); DFG, EU
IOELV (EU)	Long-term value: 0,1 mg/m ³
7440-50-8 copper	
MAK (Germany)	Long-term value: 0,01 A mg/m ³ als Cu

Regulatory information

MAK (Germany): MAK- und BAT-Liste

AGW (Germany): TRGS 900

recommended monitoring procedures in accordance with 453/2010/EU no. 8.1.2:

7440-50-8 copper: BIA 7755 (D), NIOSH 7301(E), MéroPol Fiche 003(F), MTA/MA-025/A92(ESP)

7440-22-4 silver: ISO 15202(F, E), BIA 8600(D), NIOSH 7301(E)

7439-92-1 lead: NIOSH 7702(E) "lead"

Ingredients with biological limit values:	
7439-92-1 lead	
BGW (Germany)	300 µg/l Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: keine Beschränkung Parameter: Blei Frauen < 45 J.
	400 µg/l Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: keine Beschränkung Parameter: Blei
BAT (EU)	70 µg/dl blood lead

Regulatory information BGW (Germany): TRGS 903**Additional information:** The lists valid during the making were used as basis.**8.2 Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

Pregnant women should strictly avoid inhalation or skin contact.

Do not eat, drink, smoke or sniff while working.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter P2

Protection of hands:

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

synthetic rubber

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Recommended thickness of the material: $\geq 0,2$ mm**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.

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Value for the permeation: Level ≤ 6

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As protection from splashes gloves made of the following materials are suitable: *Nitrile rubber, NBR***Eye protection:** *Safety glasses***Body protection:** *Protective work clothing*

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties**General Information****Appearance:**

Form:	<i>Solid</i>
Colour:	<i>Silver-coloured</i>
Odour:	<i>Characteristic</i>
Odour threshold:	<i>Not determined.</i>

pH-value: *Not applicable.***Change in condition**

Melting point/Melting range:	<i>Not applicable</i>
Boiling point/Boiling range:	<i>Undetermined.</i>

Flash point: *Not applicable.***Flammability (solid, gaseous):** *Not determined.***Ignition temperature:****Decomposition temperature:** *Not determined.***Self-igniting:** *Product is not selfigniting.***Danger of explosion:** *Product does not present an explosion hazard.***Explosion limits:**

Lower:	<i>Not determined.</i>
Upper:	<i>Not determined.</i>

Vapour pressure: *Not applicable.***Density at 20 °C:** *8,5 g/cm³***Relative density** *Not determined.***Vapour density** *Not applicable.***Evaporation rate** *Not applicable.***Solubility in / Miscibility with water:** *Insoluble.***Partition coefficient (n-octanol/water):** *Not determined.***Viscosity:**

Dynamic:	<i>Not applicable.</i>
Kinematic:	<i>Not applicable.</i>

Solvent content:

Organic solvents:	<i>0,0 %</i>
VOC (EC)	<i>0,00 %</i>
Solids content:	<i>100,0 %</i>

9.2 Other information *No further relevant information available.*

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 and stored according to specifications.***10.3 Possibility of hazardous reactions***Toxic fumes may be released if heated above the decomposition point.**Reacts with acids, alkalis and oxidising agents.**Develops toxic gases/fumes.***10.4 Conditions to avoid** *No further relevant information available.***10.5 Incompatible materials:** *No further relevant information available.***10.6 Hazardous decomposition products:***Toxic metal oxide smoke**Leadoxide vapour*

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SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity** *Based on available data, the classification criteria are not met.***Primary irritant effect:****Skin corrosion/irritation** *Based on available data, the classification criteria are not met.***Serious eye damage/irritation** *Based on available data, the classification criteria are not met.***Respiratory or skin sensitisation** *Based on available data, the classification criteria are not met.***CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****Germ cell mutagenicity** *Based on available data, the classification criteria are not met.***Carcinogenicity** *Based on available data, the classification criteria are not met.***Reproductive toxicity** *Based on available data, the classification criteria are not met.***STOT-single exposure** *Based on available data, the classification criteria are not met.***STOT-repeated exposure** *Based on available data, the classification criteria are not met.***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.***12.2 Persistence and degradability** *No further relevant information available.***12.3 Bioaccumulative potential** *No further relevant information available.***12.4 Mobility in soil** *No further relevant information available.***Additional ecological information:****General notes:***The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary**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.***12.5 Results of PBT and vPvB assessment****PBT:** *Not applicable.***vPvB:** *Not applicable.***12.6 Other adverse effects** *No further relevant information available.***SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation** *Contact manufacturer for recycling information.***European waste catalogue**17 04 07 | *mixed metals***Uncleaned packaging:****Recommendation:** *Disposal must be made according to official regulations.***SECTION 14: Transport information****14.1 UN-Number**

ADR, ADN, IMDG, IATA

Void

14.2 UN proper shipping name

ADR, ADN, IMDG, IATA

Void

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA

Class

Void

14.4 Packing group

ADR, IMDG, IATA

Void

14.5 Environmental hazards:**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.*

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UN "Model Regulation":

Void

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Directive 2012/18/EU

Named dangerous substances - ANNEX I *None of the ingredients is listed.*

National regulations:

Additional classification according to Decree on Hazardous Materials, Annex II:

Can cause cancer if present as respirable dust.

Information about limitation of use:

*Employment restrictions concerning women of child-bearing age must be observed.**Employment restrictions concerning pregnant and lactating women must be observed.**Employment restrictions concerning juveniles must be observed.*Waterhazard class: *Water hazard class 1 (Self-assessment): slightly hazardous for water.***15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.***SECTION 16: Other information***This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.***Relevant phrases***H317 May cause an allergic skin reaction.***Abbreviations and acronyms:***RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)**ICAO: International Civil Aviation Organisation**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)**VOC: Volatile Organic Compounds (USA, EU)**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**DNEL: Derived No-Effect Level (REACH)**PNEC: Predicted No-Effect Concentration (REACH)**LC50: Lethal concentration, 50 percent**SVHC: Substances of Very High Concern**Skin Sens. 1: Skin sensitisation – Category 1*