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

1.1 Product identifier

Trade name:

ISO-Core "EL", lead-free Sn97Ag3, Sn96Ag4 (Sn96,5Ag3,5), Sn95Ag5 Sn97Cu3, Sn99Cu1 (Sn99,3Cu0,7), Sn96Ag3Cu1 (Sn96,5Ag3Cu0,5), Sn95Ag4Cu1 (Sn95,5Ag3,8Cu0,7) UFI: not applicable

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

Soldering alloy

Flux for soldering

1.3 Details of the supplier the safety data sheet

KS Tools

Werkzeuge und Maschinen GmbH

Seligenstädter Grund 10-12 63150

Heusenstamm - GERMANY

customerservice@kstools.com

www.kstools.com

1.4 Emergency number, telephone number: TOXIC EMERGENCY/TRANSPORT EMERGENCY -

Germany, Austria, Switzerland, Luxembourg (24h)

Tel: +49 89 220 61012 / 0800 000 7801 (German, English)

Numéro d'appel d'urgence en cas d'intoxication/d'accident -

Suisse, Luxembourg (24h): Tel: ++33 1 7211 0003 (Français)

EMERGENCY CALL: 112

Emergency number:

EMERGENCY CONTACT - UK, UAE,

South Africa (24h): Tel: ++441865407333 (English)
TRANSPORT EMERGENCY CONTACT - UK, UAE,
South Africa (24h): Tel: ++44 1865 407333 (English)



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SECTION 2: Potential hazards

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 Labelling element

Labelling according to Regulation (EC) No. 1272/2008: not applicable

Hazard pictograms: not applicable

Signal word: not applicable

Hazard statements: not applicable

Additional information:

Contains rosin. May cause allergic reactions. Safety data sheet available

on request.

2.3 Other dangers

Results of PBT and vPvB assessment

PBT: Not applicable. vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Substance /3.2 Mixture

Description: Mixture: consisting of the substances listed below.

| Name of the substance | Contents | CAS No. | EC no. | Index no. | Registration No. | Classification |
|---|----------|-----------|----------------------|-----------|------------------|----------------|
| Tin Substance for which a Community workplace exposure limit value applies | 50-100% | 7440-31-5 | EINECS: 231-141-8 | | 01-2119486474-28 | |
| silver Substance for which a Community workplace exposure limit value applies | 0-<5% | 7440-22-4 | EINECS: 231-131-3 | | 01-2119555669-21 | |
| Copper Aquatic Chronic 2, H411 | 0-<3% | 7440-50-8 | EINECS: 231-159-6 | | 01-2119480154-42 | |
| Rosin Skin Sens. 1, H317 | <1% | 8050-09-7 | EINECS: 232-475-7 | | 01-2119480418-32 | |

Additional information: The wording of the listed hazard statements can be found in section 16.



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SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Affected persons out into the fresh air.

No special measures required.

After inhalation: Supply fresh air, consult a doctor if symptoms occur.

After skin contact:

After contact with the melted product, cool quickly with cold water. Do not remove solidified product from the skin.

Provide medical treatment.

After eye contact: Consult a doctor immediately.

After ingestion:

Rinse mouth and drink plenty of water.

Refer to medical treatment.

4.2 Most important symptoms and effects, both acute and delayed.

No further relevant information available.

4.3 Information on immediate medical assistance or specialised treatment

No further relevant information available.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media:

CO2, extinguishing powder or water spray jet. Fight larger fires with a water spray jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Instructions for firefighting

Special protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protective clothing.



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6.2 Environmental protection measures

Do not allow to enter drains/surface water/groundwater.

6.3 Methods and material for retention and cleaning

Allow to solidify, pick up mechanically.

6.4 Reference to other sections

For information on safe handling see section 7.

For information on personal protective equipment see section 8.

For information on disposal see section 13.

SECTION 7: Handling and storage

7.1 Notes on safe handling

Ensure suitable extraction at the processing machines.

Information about fire and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles: No special requirements.

Information on storage together: Store separately from foodstuffs.

Further information on storage conditions: Store in a dry place.

Storage hazard class (VCI/D): 13

Classification according to the German Ordinance on Industrial Safety and Health (BetrSichV): -

7.3 Specific end uses

No further relevant information available.

SECTION 8: Exposure controls/personal protective equipment

8.1 Parameters to be monitored

| Components with limit values that require monitoring at the workplace: | | | | |
|--|-----|-------------------------------|--|--|
| 7440-31-5 Tin | MAK | see section IIb | | |
| 7440-22-4 Silver | AGW | Long-term value: 0.1 E mg/m³ | | |
| | | 8(II);DFG, EU | | |
| 7440-50-8 Copper | MAK | Long-term value: 0.01 A mg/m³ | | |
| | | as Cu | | |

Legal regulations

MAK: MAK and BAT list

AGW: TRGS 900

Recommended monitoring procedures according to 2020/878/EU No. 8.1.2:

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



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

Additional information:

Legend: AG=Occupational exposure limit. E=inhalable fraction, A= alveolar fraction.

| Spb. trans. = Peak limitation - exceedance factor (1 to 8) and category (I,II) for short-term values. "= =" =moment value.

| BGW= Biological limit value. Sampling time: a) no restriction, b) end of exposure or end of shift, c) in case of long-term exposure: after several previous shifts, d) before the following shift,

e) after end of exposure:-hours. | Other information: ARW= Workplace guideline value, H= skin-resorptive. Y= A risk of fruit damage need not be feared if the AG and BG are observed, DFG = German Research Foundation (MAK Commission).

The lists valid at the time of creation served as the basis.

8.2 Exposure controls and monitoring

Suitable technical control equipment No further details, see section 7.

Suitable technical control equipment:

adequate ventilation. Remove vapours using suitable extraction equipment.

8.3 Individual protective measures, such as personal protective equipment:

General protection and hygiene measures:

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

Respiratory protection: Respiratory protection in case of insufficient ventilation. Filter P2

Hand protection:

Selection of the glove material taking into account the breakthrough times, permeation rates and degradation.

Glove material: Natural rubber (latex)

Selection of the glove material taking into account the breakthrough times, permeation rates and degradation.

The selection of a suitable glove depends not only on the material but also on other quality features and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of glove materials cannot be calculated in advance and must therefore be checked before use.

Recommended material thickness:> 0.22 mm

Penetration time of the glove material: Value for permeation: Level< 6

The exact breakthrough time must be obtained from the protective glove manufacturer and adhered to.

The breakthrough times determined in accordance with EN 16523-1:2015 are not carried out under practical conditions. A maximum wear time corresponding to 50 % of the breakthrough time is therefore recommended.

Eye/face protection in case of use: Safety goggles

Body protection: Protective work clothing

8.4 Monitoring of environmental exposure:

No further relevant information available.



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SECTION 9 : Physical and chemical properties

9.1 Information on the basic physical and chemical properties

| General information | | | | |
|---|-----------------------------------|--|--|--|
| Colour: | Silver grey | | | |
| Odour: | Odourless | | | |
| Odour threshold: | Not determined. | | | |
| Melting point/freezing point: | 217-221°C | | | |
| Boiling point or initial boiling point and boiling range: | Not determined. | | | |
| Flammability | Not determined. | | | |
| Lower explosion limit: | Not determined. | | | |
| Upper explosion limit: | Not determined. | | | |
| Flash point: | Not applicable. | | | |
| Ignition temperature: | The product is not self-igniting. | | | |
| Decomposition temperature: | Not determined. | | | |
| pH value: | Not applicable. | | | |
| Kinematic viscosity: | Not applicable. | | | |
| Dynamic viscosity: | Not applicable. | | | |
| Solubility Water: | Insoluble. | | | |
| Partition coefficient n-octanol/water (log value): | Not determined. | | | |
| Vapour pressure: | Not applicable. | | | |
| Density: | Not determined. | | | |
| Relative density: | Not determined. | | | |
| Vapour density: | Not applicable. | | | |
| Particle properties: | See section 3. | | | |

9.2 Other information

| Appearance: | | | | |
|---|-------------------------------|--|--|--|
| Mould: | Firm | | | |
| Important information on health, environmental protection and safety: | | | | |
| Explosive properties: | The product is not explosive. | | | |
| Solvent content: | | | | |
| Organic solvents: | 0,0 % | | | |
| Solids content: | 100,0 % | | | |
| Change of state: | | | | |
| Evaporation rate: | Not applicable. | | | |
| Information on physical hazard classes: | | | | |
| Explosive substances/mixtures and articles containing: | | | | |
| Explosive: | Not applicable | | | |
| Flammable gases: | Not applicable | | | |
| Aerosols: | Not applicable | | | |
| Oxidising gases: | Not applicable | | | |
| Gases under pressure: | Not applicable | | | |
| Flammable liquids: | Not applicable | | | |



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| Flammable solids: | Not applicable |
|---|----------------|
| Self-reactive substances and mixtures: | Not applicable |
| Pyrophoric liquids: | Not applicable |
| Pyrophoric solids: | Not applicable |
| Self-heating substances and mixtures: | Not applicable |
| Substances and mixtures which, in contact with water, emit flammable gases: | Not applicable |
| Oxidising liquids: | Not applicable |
| Oxidising solids: | Not applicable |
| Organic peroxides: | Not applicable |
| Substances and mixtures corrosive to metals: | Not applicable |
| Desensitised substances/mixtures and articles containing explosives: | Not applicable |

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 stored and handled as directed.

10.3 Possibility of hazardous reactions.

Reacts with acids, alkalis and oxidising agents.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

Possible in tracks.

SECTION 11: Toxicological information

11.1 Information on hazard classes according to Regulation (EC) No 1272/2008

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

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.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.



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

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

Specific target organ toxicity (single exposure):

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

Specific target organ toxicity with repeated exposure:

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

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

11.2 Information on other hazards

Endocrine disrupting properties: None of the ingredients are included.

SECTION 12: Environmental 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.

12.5 Results of the PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties

For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects

Further ecological information:

General information:

Release into the environment must be avoided.

Water hazard class 1 (self-classification): slightly hazardous to water

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or the sewage system.



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SECTION 13: Disposal instructions

13.1 Waste treatment processes

Recommendation: Contact manufacturer for recycling.

European waste catalogue: 17 04 07: mixed metals coil:

15 01 02: Plastic packaging outer packaging:15 01 01: Paper and cardboard packagingUncleaned packaging: not applicable:

Recommendation: Dispose of in accordance with official regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADR, ADN, IMDG, IATA: not applicable

14.2 UN proper shipping name

ADR, ADN, IMDG, IATA: not applicable

14.3 Transport hazard classes

ADR, ADN, IMDG, IATA Class: not applicable

14.4 Packaging group

ADR, IMDG, IATA: not applicable

14.5 Environmental hazards:

Marine pollutant: No

14.6 Special precautions for the user:

Not applicable.

14.7 Transport of bulk cargo by sea in accordance with IMO instruments:

Not applicable.

UN "Model Regulation": not applicable

SECTION 15: Legislation

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 are included.

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II: None of the ingredients are included.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED OUTPUTS FOR EXPLOSIVE SUBSTANCES (Upper concentration limit for



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an authorisation in accordance with Article 5(3)): None of the ingredients are included.

Annex II - DECLARABLE EXPLOSIVE MATERIALS: None of the ingredients are present.

National regulations:

Information on employment restrictions: Observe employment restrictions for young people.

Technical instructions for air: Class III: proportion 50 - 100 %

Water hazard class: WGK 1 (self-classification): slightly hazardous to water.

15.2 Chemical safety assessment

A chemical safety assessment was not carried out.

SECTION 16: Other information

The information is based on our current state of knowledge, but does not constitute a guarantee of product properties and does not establish a contractual legal relationship.

Reasons for changes

03/09/2015: Adaptation to Regulation 453/2010/EC, 830/2015/EU and 18/2012/EU

22/03/2017: Section 1 13.09.2018: Section 13 17.08.2020. Section 1, 3 01.04.2021: Section 15, 16

Information according to Annex I No. 1.3.4.2 of Regulation (EC) No. 1272/2008

Relevant phrases

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

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 relatif au transport international 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)

PBT: Persistent, Bioaccumulative and Toxic vPvB:

very Persistent and very Bioaccumulative

Skin Sens. 1: Skin sensitisation - Category 1

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

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Please note!

This safety data sheet has been prepared in accordance with the current legislation of the European Union.

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