

SAFETY DATA SHEET (91/155/EWG)**Microbond softsolder SnAg25Sb10****umicore**

Material no.		Version	4.0 / REG_EU
Specification	129531	Revision date	15.11.2005
VA-Nr		Print Date	17.11.2005
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product information**

Trade name : Microbond softsolder SnAg25Sb10

Company : Umicore AG & Co. KG
OS - RC
Produktsicherheit
Postfach 1351
Rodenbacher Chaussee 4
D-63403 Hanau-Wolfgang

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Emergency telephone number : +49 (0)69 305-6420

Use of the Substance /
Preparation : Strip, wire, balls and stampings.**2. COMPOSITION/INFORMATION ON INGREDIENTS****Information on ingredients / Hazardous components**

• Tin		<= 65%	
CAS-No.	7440-31-5	EC-No.	231-141-8
• Silver		<= 25%	
CAS-No.	7440-22-4	EC-No.	231-131-3
• Antimony		<= 10%	
CAS-No.	7440-36-0	EC-No.	231-146-5
	Xi		
	R37		

See chapter 16 for text of risk phrases

3. HAZARDS IDENTIFICATION

Inhalation of vapors, dusts or fumes may cause irritation to the respiratory tract.

4. FIRST AID MEASURES**General advice**Move out of dangerous area.
Place person on side in stable position if unconscious.
Employ artificial respiration if breathing ceases.**Inhalation**Take affected persons out into the fresh air.
In case of discomfort: Supply with medical care.

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Skin contact

Upon skin contact, wash with plenty of water.

Eye contact

Rinse immediately with plenty of water for 15 minutes and seek advice of an eye specialist.

Ingestion

Immediately give large quantities of water to drink.

Do not induce vomiting.

Call a physician immediately.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

All extinguishing substances suitable., special powder against metal fire

Specific hazards during fire fighting

metal oxides

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Further information

The product itself does not burn.

Water used to extinguish fire should not enter drainage systems, soil, or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Contaminated fire-extinguishing water must be disposed of in accordance with the regulations issued by the appropriate local authorities.

Retention of fire-extinguishing water in Germany: see FireExtinguishing Water Retention Directive "LoeRueRL":

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Keep people away from and upwind of spill/leak.

Environmental precautions

Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems.

Methods for cleaning up

Pick up mechanically. Collect in suitable containers.

Avoid dust formation.

7. HANDLING AND STORAGE**Handling****Safe handling advice**

Ensure suitable suction/aeration at the work place and with operational machinery.

Avoid formation of dust. Local ventilation if necessary.

Do not breathe dust.

Storage**Requirements for storage areas and containers**

Keep container dry and tightly sealed - even empties.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Components with workplace control parameters**• **Tin**

CAS-No.	7440-31-5	EC-No.	231-141-8
Control parameters	2 mg/m ³		Time Weighted Average (TWA):(EU ELV)

• **Silver**

CAS-No.	7440-22-4	EC-No.	231-131-3
Control parameters	0,1 mg/m ³		Time Weighted Average (TWA):(EU ELV)
Control parameters	0,01 mg/m ³		Time Weighted Average (TWA):(PT OEL)

Other information

When processing the product, the air in the workplace should be regularly monitored and employees exposed to the product should be given a regular medical check-up.

Engineering measures

Ensure suitable suction/aeration at the work place and with operational machinery.

Personal protective equipment**Respiratory protection**

If dust occurs: Nose and mouth mask with P2 particle filter

Hand protection

Wear suitable gloves.

Glove material	Nitrile
Material thickness	0,11 mm

Suitability for specific workplaces should be clarified with protective glove manufacturers.

The rupture time and material thickness data are guideline values! Exact rupture time / material thickness data can be obtained from the protective glove manufacturer.

The information is based on our own tests, references from the literature and information from glove manufacturers, or derived by analogy with similar materials.

Eye protection

safety goggles with side-shields.

Skin and body protection

If dust occurs: chemical protective suit or disposable protective suit

Hygiene measures

Change contaminated clothing.

No eating, drinking, smoking, or snuffing tobacco at work.

Wash hands before breaks and at the end of workday.

Do not breathe dust.

preventive skin protection

Protective measures

Handle in accordance with good industrial hygiene and safety practices.

If the limits at the workplace are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used.

If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.

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9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	solid
Colour	silver
Odour	odourless

Safety data

pH	not applicable
Melting point/range	228 - 395 °C
Boiling point/range	not determined
Flash point	not applicable
Flammability	Not combustible.
Oxidizing properties	See chapter 10
Explosiveness	no data available
Vapour pressure	not determined
Density	7,8 g/cm ³ (20 °C)
Partition coefficient (n-octanol/water)	not determined
Viscosity, dynamic	not applicable

10. STABILITY AND REACTIVITY

Conditions to avoid	Avoid contact with acids. oxidizing agents
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11. TOXICOLOGICAL INFORMATION

No results of animal experiments with the product available.

12. ECOLOGICAL INFORMATION**Elimination information (persistence and degradability)**

Physico-chemical removability May be separated mechanically in waste water plants.

Behaviour in environmental compartments**Ecotoxicity effects**

Ecotoxicological tests with this preparation are not available.

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13. DISPOSAL CONSIDERATIONS**Product**

Implement a recycling procedure for the recovery of precious metals taking account of local authority regulations. Rest quantities and solutions that cannot be re-used are to be taken to a recognised disposal company.

Uncleaned packaging

Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities.

Waste Key Number

No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer. The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.

14. TRANSPORT INFORMATION**Transport/further information**

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION**Labelling according to EC Directives**

Other data

On the basis of our data the product is not a hazardous substance as defined by the Chemicals Act or Hazardous Substance Ordinance in the currently valid versions.

National legislation

16. OTHER INFORMATION**Risk phrase (R phrase) texts**• **Antimony**

R37

Irritating to respiratory system.

Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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