

SAFETY DATA SHEET

According to Regulation (EU) 2020/878, amending Annex II of Regulation (EC) No 1907/2006 (REACH)

BROPASTE Sn97 Cu3 (LEAD-FREE SOLDER PASTE)

Printing date: 19/10/2022

Version: 2

Revision date: 20/09/2022

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

1.1. Product identifier

Trade name : BROPASTE (Sn97 Cu3)
Description : Lead-Free Solder Paste

Trade name	Regulation	Composition metal nº.	UFI number	Description
BROPASTE Sn97Cu3	UNE.EN ISO 9453	402	S020-J05U-N004-1A0	Sn97-Cu3

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

Identified uses : Soft soldering in water installations with copper pipes, heating systems and various sanitary and plumbing connections.
Uses advised against : Do not use for other purposes other than those described in the product.

1.3. Details of the supplier of the safety data sheet

Supplier : BROQUETAS, S.L.
Address : c/ Can Sallarès 12-16
08740 Sant Andreu de la Barca, Barcelona (España)
Telephone number : +34 936401900
E-mail address for a competent person responsible for the safety data sheet: broquetas@broquetas.com

1.4. Emergency telephone number

Availability : +34 936401900
Monday to Friday from 8:00 to 14:00 h.



SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) Nº 1272/2008 [CLP]	
Hazard Classes/ categories	Hazard statements (H)*
GHS08 Health Hazard	H372: Causes damage to organs through prolonged or repeated exposure. H412: Harmful to aquatic life with long-lasting effects.
GHS07 Harmful	H302: Harmful if swallowed (Acute Toxicity category 4) H312: Harmful in contact with skin (Acute Toxicity category 4) H332: Harmful if inhaled (Acute Toxicity category 4)

2.2. Label elements

Labelling (CLP)

Regulation (EC) Nº 1272/2008 [CLP]		
Signal Word and Pictograms	Hazard statements (H)	Precautionary Statements (P)*
<p><i>Warning</i></p>   <p>GHS07 GHS08</p>	<p>H372: Causes damage to organs through prolonged or repeated exposure. H402: Harmful to aquatic life. H302: Harmful if swallowed (Acute Toxicity category 4) H312: Harmful in contact with skin (Acute Toxicity category 4) H332: Harmful if inhaled (Acute Toxicity category 4)</p>	<p>P280, P270, P304+P340, P301+P330+P331, P302+P352, P402, P501</p>

*Full text of the Precautionary Statements (P): See section 16

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Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

2.3. Other hazards

Compliance with PBT/vPvB criteria : The product does not contain substances classified as PBT or vPvB.

Other hazards not identified in the classification

Risk of burn hazards when touching hot parts of the unit at high temperatures. Inhaling the mothball fumes can cause health problems. Ensure proper ventilation.





SECTION 3: Composition/information on ingredients

3.2. Mixtures

Metal alloy composition:

Chemical name	Content (%)	CAS number	CE number
Copper (Cu)	0 – 5.0	7440-50-8	231-159-6
Tin (Sn)	95 – 100	7440-31-5	231-141-8

Flux composition:

Chemical name	Content (%)	CAS number	CE number	Classification according Regulation 1272/2008 (CLP)*
Alcohols, C16-18, ethoxylated	15 – 25	68439-49-6	500-212-8	Acute Tox. 4 H302: Harmful if swallowed 
Zinc Chloride	15 – 25	7646-85-7	231-592-0	Skin corr. 1B, H314; Eye Dam. 1, H318 Acute Tox. 4, H302 Aquatic acute 3, H402 
Ammonium Chloride	1 – 5	12125-02-9	235-186-4	Acute Tox. 4, H302; Eye Irrit. 2A, H319 
Ethylene glycol	15 - 25	107-21-1	203-473-3	Acute Tox. 4, H302; Eye Irrit. 2A, H319 

SECTION 4: First aid measures

4.1. Description of first aid measures

General notes

: If a health problem is detected, seek medical advice.

In case of inhalation

: Move exposed person to fresh air and seek medical advice.

In case of contact with skin

: Clean with soap and water. If symptoms persist consult doctor.

In case of contact with eyes

: Immediately rinse long with water for several minutes holding the eyelids open for a good cleaning. Consult an ophthalmologist.

In case of ingestion

: Seek medical advice. Do not induce vomiting. Give to drink water if the person is conscious. DO NOT give water to an unconscious person (In suitable conditions of use the product is not



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ingestible).

Recommendations for first aid responders

: The protection to first-aid personnel: Should wear the protection equipment of level C to give first aid in the safe area.

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

: -

4.3. Indication of any immediate medical attention and special treatment needed

: Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

: Use alcohol resistant foam, carbon dioxide or dry chemical extinguishing agents.

Unsuitable extinguishing media

: Do not use high pressure water jet to avoid dispersion of the product.

5.2. Special Hazards arising from the substance or mixture

Hazardous combustion products

: Oxide vapours and metal fumes.

Other specific hazards

: Fumes released of burning of the product may cause damage to the respiratory system.

5.3. Advice for firefighters

: In case of fire, use personal protective equipment as required. Firefighters must wear fire resistant protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: Follow the indications described in section 8.

For emergency responders

: Avoid contact with skin, eyes and clothing. Follow the indications described in section 8.

6.2. Environmental precautions

: Do not flush product into public sewer, water systems or surface waters.

6.3. Methods and material for containment and cleaning up

Collect the product in closed recipients and properly labelled. Managing wastes through an authorised waste management entity.

6.4. Reference to other sections

: For more information, see sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevention and protection measures

: The product may be handled only by appropriately trained personnel and with appropriate Individual protection measures. During the working process the product attains high temperatures so using suitable gloves and eye protection and wearing a mask in poorly ventilated areas is recommended, as it is described in section 8.2.

Advice on general occupational hygiene

: Do not eat, drink or smoke while handling the product. Keep proper hygiene after handling.

7.2. Conditions for safe storage, including any compatibilities

Technical measures and storage conditions

: Not defined.



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Containers requirements and storage areas	: Keep away from any acids and oxidants.
Further information for storage	: Keep away from heat or sunlight.
7.3. Specific end use (s)	: Soldering process.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters	
Occupational exposure limits	: <u>Copper</u> : TLV-TWA (ACGIH 2005): 0,1 mg/m ³ fumes; 1 mg/m ³ dust, mists. <u>Tin</u> : TLV-TWA (ACGIH 2005): 2 mg/m ³ . <u>Ammonium Chloride</u> : TLV-TWA: 10 mg/m ³ fumes. <u>Zinc Chloride</u> : TLV-TWA: 1 mg/m ³ fumes. <u>Ethylene Glycol</u> : 20 ppm; 52 mg/m ² (VLA-ED)
DNELs and PNECs	: Not available.
8.2. Exposure controls	
Appropriate engineering controls	: Use only in open or well ventilated areas. Use preferably localized extraction.
Individual protection measures, such as personal protective equipment	
Eye/face protection	: Proper handling may include wearing protective glasses.
Skin protection	
Hand protection	: Avoid contact with the skin.
Others	: Use the appropriate protective clothing of welders.
Respiratory protection	: Avoid breathing dust or fumes during use.
Environmental exposure controls	: Take into account the usual precautions to protect the environment, see section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties	
Appearance	: Grey Paste
Odour	: Mild
Odour threshold	: Not available / Not applicable.
pH	: Not available / Not applicable.
Melting point	: >200°C (>212°F) for the alloy.
Initial boiling point and boiling range	: Undetermined.
Flash point	: Non flammable.
Evaporation rate	: Not available / Not applicable.
Flammability (solid, gas)	: Not flammable.



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Upper/lower flammability or explosive limits	: Not applicable.
Vapour pressure (20°C)	: <0.1 mmHg
Vapour density	: Not applicable.
Density at (20°C)	: 4-5g/cm ³ for paste, 2,25 g/cm ³ for flux
Solubility(ies)	: Almost insoluble
Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: Not available / Not applicable.
Viscosity	: Not applicable.
Explosive properties	: Not applicable.
Oxidising properties	: Not applicable.
9.2. Other information	: No further relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	: The product reacts in hot concentrated nitric acid, hydrochloric acid and sulfuric acid.
10.2. Chemical stability	: Stable under normal conditions and no special precautions required.
10.3. Hazardous reactions	: Carbon oxide on burning
10.4. Conditions to avoid	: Storage temperatures higher than 60°C
10.5. Materials to avoid	: Strong oxidants, strong bases and strong acids.
10.6. Hazardous decomposition products	: Carbon oxide on burning.

SECTION 11: Toxicological information

11.1. Information on toxicological effects	
Hazard/Effect class	
Acute toxicity	: H302: Harmful if swallowed (Acute Toxicity category 4). H312: Harmful in contact with skin (Acute Toxicity category 4). H332: Harmful if inhaled (Acute Toxicity category 4).
Skin corrosion/irritation	: On the basis of the available data, the classification criteria is not complied.
Serious eye damage/irritation	: On the basis of the available data, the classification criteria is not complied.
Respiratory or skin sensitisation	: On the basis of the available data, the classification criteria is not complied.
Germ cell mutagenicity	: On the basis of the available data, the classification criteria is not complied.
Carcinogenicity	: On the basis of the available data, the classification criteria is not complied.
Reproductive toxicity	: On the basis of the available data, the classification criteria is not complied.
STOT-single exposure	: On the basis of the available data, the classification criteria is not complied.
STOT-repeated exposure	: On the basis of the available data, the classification criteria is not complied.
Aspiration hazards	: On the basis of the available data, the classification criteria is not complied.



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Symptoms

: Metallic fumes may cause irritation of respiratory tract, eyes, throat and lungs. Fumes and welding dust may cause skin irritation.

Chronical effects

: Animal drinking water containing 0.18mg/l of lead may get lead poisoning. Rats ingested 0.005mg/kg of lead showed evidence of CMS disturbances

SECTION 12: Ecological information

12.1. Toxicity information

: Metallic waste has negative effects on the environment (water, soil).

12.2. Persistence and degradability

: No data available.

12.3. Bioaccumulative potential

: No data available.

12.4. Mobility in soil

: No data available.

12.5. Results PBT and vPvB assessment

: The product does not contain any substance classified as PBT or vPvB.

12.6. Ecological effects information

: Other side effects are not known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate methods of waste treatment of both substance or mixtures

: Product waste must be transported to an authorized waste disposal plant. Dispose according to local and national regulations. Do not remove by direct discharge into rivers or sewage system.

Appropriate methods of waste treatment of contaminated packaging

: Handle contaminated containers as the product itself.

SECTION 14: Transport information

	ADR/RID	AND/ADNR	IMDG	IATA
14.1. UN number	The product is not classified according to transport agreements.			
14.2. UN proper shipping name				
14.3. Transport hazard class (es)				
14.4. Packing group				
14.5. Environmental hazards				
14.6. Special precautions for user				
Special dispositions				

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

: Not applicable.

SECTION 15: Regulatory information

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

EU regulations

REACH authorizations

: The product does not contain a substance present in the candidate list of SVHC, and in Annex XIV of REACH.

REACH use restrictions

: The product has no restriction of use.

Regulation (EC) 2037/2000 on substances that deplete the ozone layer

: Not applicable.

15.2. Chemical safety assessment

: An evaluation of the product's chemical safety has not been carried out.



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SECTION 16: Other information

Changes to the previous version	: Format adaptation to the REACH Regulation amendment, the Regulation (EU) 2015/830. Mixture classified according to Regulatory (CE) 1272/2008 (CLP).
Abbreviations and acronyms	: SDS: Safety data sheet PBT: Persistent, bioaccumulative and toxic vPvB: Very persistent and very bioaccumulative TLV: Thershold Limit Values TWA: Time Weighted Average ACGIH: American Conference of Industrial Hygienists DNEL: Derived non-effect level PNEC: Predicted non-effect concentration SVHC: Substances of Very High Concern LD50: Median Lethal dose. LC50: Median Lethal Concentration. ATEmix: Acute toxicity estimated of the mixture.
Key literature references and sources for data	: Safety data sheet of the components. https://echa.europa.eu/
Indication of which of the methods of evaluating information referred to in Article 9 of Regulation (EC) No 1272/2008 was used for the purpose of classification	: Classification of the mixture from the components classifications.
Full text of hazard statements (H)	: H302: Harmful if swallowed (Acute Toxicity category 4). H312: Harmful in contact with skin (Acute Toxicity category 4). H332: Harmful if inhaled (Acute Toxicity category 4). H372: Causes damage to organs through prolonged or repeated exposure. H412: Harmful to aquatic life with long-lasting effects.
Full Text of precautionary statements	: P280: Wear protective gloves / eye protection. P270: Do not eat, drink or smoke when using this product. P304+P340: IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P302+P352: IF ON SKIN: Wash with plenty of soap and water. P402: Store in a dry place. P501: Dispose of contents/container in accordance with local/regional/national/international regulations.
Advice on any training appropriate for workers:	: Maintenance and production plant crew has received information and training on the safety instructions in plant and equipment.
NOTES	: This information only refers to the product described in this file and may not be valid if it is used in conjunction with another product (s) or in any process. The information presented is based on our most accurate level of current knowledge and is provided in good faith but cannot be guaranteed or ensured its accuracy or reliability. It is a guide for the safe handling, use, processing, storage, transportation and disposal of this product and should not be considered a guarantee or a quality specification.