GEMCUTS PTY LTD

Date of Issue 14-11-2019

SAFETY DATA SHEET
SILVER SOLDER PASTE

IMPORTANT NOTICE: This Safety Data Sheet (SDS) is issued by Gemcuts Pty Ltd in accordance with National Occupational Health and Safety Commission guidelines. The information contained in this document must not be added to, deleted or altered. Gemcuts Pty Ltd will issue a new SDS when there is a change in the product specifications and/or with the National Occupational Health and Safety Commission guidelines/ regulations. Gemcuts Pty Ltd will not accept any responsibility for any changes made to its SDS in content by any other person or organisation.

CLASSIFICATION OF MATERIAL

Some of the chemicals that make this product is hazardous according to health criteria of Worksafe Australia

1. IDENTIFICATION OF THE MATERIAL & SUPPLIER

Product	Silver Solder Paste
Recommended Use	Soldering
Supplier/Importer	Gemcuts Pty Ltd
ABN	43 780 687 841
Manufacturer	Euro Tool Inc.
Address	36A Smith Drive, West Ballina NSW 2478
Telephone Number	02 66911686
Facsimile	N/A
Email	admin@gemcuts.com.au
Emergency Telephone	131126 Poisons Information Centre 0427012014

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2. HAZARDS IDENTIFICATION

WARNING: Acute Toxicity.

2.1 Hazards Classification: Acute Oral Toxicity Cat 5, Reproductive Toxicity 1B

NFPA HAZARD RATING	Fire: 0	Health: 1	Reactivity: 0
GHS HZARD RATING	Fire: 5	Health:4	Reactivity: 5

2.2 Hazard Category: Hazardous substance. Non-Dangerous Goods

2.3 Hazard Phrase(s):

H301: Toxic if swallowed

H360: May damage fertility or the unborn child

2.4 Precautionary Phrase(s):

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P308+P311: IF exposed or concerned: Call a POISON CENTER or doctor.

P405: Store locked up.

P501: Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Product Description: Semi Solid, various colours with no odour.

3.2 Contents

Chemical Name	CAS Number	Proportion %
Silver Zinc Copper	7440-22-4 7440-66-5 7440-50-8	55-85%
Boric Acid	10043-35-3	0.5-5%
Potassium Fluoride	7789-23-3	0.5-5%
Potassium Tetraborate	1332-77-0	0.5-5%

This mixture doesn’t contain any further product that is classified as a Hazard.

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4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre,

Phone (Australia) 131 126

Inhalation: Move person into fresh air. If symptoms persist or begin after leaving exposure than seek medical attention.

Skin Contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Seek medical attention if symptoms persist.

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes, remove contact lenses and consult a Doctor if irritation persists.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a Doctor.

Seek immediate medical assistance if unwell whilst using this product.

Notes to Doctor: Treat symptomatically. Symptoms can be acute and delayed.

5. FIRE FIGHTING MEASURES

5.1 Explosion Hazard: None. Product not normally flammable.

5.2 Fire Fighting Advice: Fire fighters should use self-contained breathing apparatus.

5.3 Suitable Extinguishing Media: Any suitable to the surrounding environment or fire.

6. ACCIDENTAL RELEASE MEASURES

Emergency Action: Personal Protective Equipment must be used in recovery. For small spills Use caution when cleaning up. Allow heated material to cool before retrieving.

Absorb spilled material with polypads or suitable absorbent material. If needed rinse area with water and soap.

Contain in a suitable closed container

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7. HANDLING & STORAGE

7.1 Handling Advice: Avoid contact with skin and eyes. Avoid inhalation of fumes created. Provide appropriate exhaust ventilation. Keep soldering temperatures as low as possible to avoid generating fumes. Good industrial hygiene is required, clean up spills and wash hands before eating, drinking and smoking. For precautions, see section 2.4.

7.2 Storage Advice: Keep container tightly closed, away from direct sunlight, heat and freezing temperatures. Keep away from incompatible materials. Store away from the reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Occupational Exposure Limits:

Silver (Dust and fume) 7440-22-4 TWA 0.1mg/m3

Zinc (oxide, fumes) 7440-66-5 TWA 5mg/m3 STEL 10mg/m3

Copper Dust 7440-50-8 TWA 1mg/m3

Copper Fume 7440-50-8 TWA 0.2mg/m3

Potassium fluoride (Fluorides) TWA 2.5mg/m3

Boric Acid/Potassium Tetraborate (as Borate compound) TWA 1mg/m3

8.2 Engineering Control Measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Avoid generating and breathing in dusts or fumes. Use with local and mechanical exhaust ventilation. Eye wash station.

8.3 Personal Protective Equipment:

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, APPROVED AIR PURIFYING RESPIRATOR.

Wear overalls, chemical googles or face shield and impervious gloves. Avoid generating and inhaling dusts or fumes. Avoid breathing vapours, Wear dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet, Wash contaminated clothing and other protective equipment before storage or re-use.

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9. PHYSICAL & CHEMICAL PROPERTIES

Physical State:	Semi Solid
Colour:	Various
Odour:	None
Size (millimetre)	Approx. 100mm x 20mm
Weight (grams)	20g
Solubility:	Insoluble
Density	No Data
Flash Point (°C):	>93.4°C
Boiling Point (°C)	230°C

10. STABILITY & REACTIVITY

Chemical Stability: Stable under normal conditions

Conditions to Avoid: Incompatible Materials

Hazardous Reactions: None

Incompatible Materials: Strong Oxidising Agents, Acids, Bases, Amines, Combustible material and peroxides

Hazardous Decomposition: Heating can release silver, copper and zinc oxides

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11. TOXICOLOGY INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Product Estimated Toxicity

Acute toxicity

Oral: >2000mg/kg

Inhalation: 5mg/L (Dust and Mist)

Dermal: >2500mg/kg

Copper

Oral-Rat-LD50 > 5000mg/m3

Dermal – Rabbit > 2000mg/m3

Silver

Oral-Rat-LD50 > 5000mg/m3

Dermal – Rabbit > 2000mg/m3

Zinc

Oral-Rat-LD50 = 630mg/m3

Boric Acid

Oral-Rat-LD50 3500-4100mg/m3

Dermal-Rat-LD50 2000mg/m3

Inhalation-Rat-LC5 > 2.03mg/L

Rat 4hrs

Potassium Fluoride

Oral-Rat-LD50 245mg/m3

Dermal-Rat-LD50 300mg/m3

Inhalation-Rat-LC5 0.5mg/L

Rat 4hrs

Potassium Tetraborate

Oral-Rat-LD50 > 2500mg/m3

Dermal-Rat-LD50 > 2000mg/m3

Inhalation-Rat-LC5 > 2.04mg/L

Rat 4Hrs

Skin corrosion/irritation: Contact can cause irritation

Serious eye damage/eye irritation: Can cause irritation

Inhalation: Can cause mild to severe nasal irritation

Ingestion: May irritate the mouth, throat and cause other contaminated tissue to have adverse health effects. Can cause pain, nausea and vomiting

Molten Product can cause thermal burns

Metal fume fever: Acute overexposure to product fumes result in metal fume fever, which causes symptoms such as sweet metal taste, dry throat, coughing, fever and chills, tight chest, dyspnoea, headache, blurred vision, back pain, nausea and vomiting and fatigue. Symptoms usually disappear within 24hrs. Copper may cause skin and hair discolouration. Inhalation of copper dust may change the mucous lining.

Cell mutagenicity: The concentrations of this product is not thought to cause any reproductive effects.

Carcinogenicity: Not known to be

Reproductive Toxicity: Potassium Tetraborate is a suspected human reproductive toxicant suspected of damaging the unborn child, based on studies of animals exposed to high doses of borate compound.

Boric Acid, animal studies given high doses usually never exposed to humans have shown damage to reproductive organs.

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12. ECOLOGICAL INFORMATION

Alloys of silver, copper and zinc present no threat to the environment when they occur in the size and form associated with this product in ionic form, silver compounds can be highly toxic to the aquatic environment.
Silver, copper and zinc occur naturally in the environment. It is anticipated they will slowly react with water, salts and other compounds found naturally in the environment over time.
The components of this product are not anticipated to bioaccumulate in any significant quantities.
Alloys are Not mobile in soil.

13 DISPOSAL CONSIDERATIONS

Commonwealth, State and Local laws governing disposal of material can differ. Ensure proper disposal compliance with the proper authority before disposal.
If possible recycling of material is always preferred.

14. TRANSPORT INFORMATION

Not regulated

14.1 **Road and Rail Transport:** Not Applicable
14.2 **Marine Transport:** Not Applicable
14.3 **Air Transport:** Not Applicable

15. REGULATORY INFORMATION

Work Health and Safety Regulation 2017 Chapter 3 Part 3.2 Division 7
Managing risks from airborne contaminants
Safe Work Australia HCIS
GHS
NTC

16. OTHER INFORMATION

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Gemcuts Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material. If clarification or further information is needed, the user should contact Gemcuts Pty Ltd at the contact details on page 1.

Gemcuts Pty Ltd responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.