

## Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

### SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Code: **B-01-001**  
Product name **CuP - AgCuP - CuPSn**

**Brazing alloys, supplied as bare rods, wires, foils, rings, preforms, with following codes: CuP5, CuP6, CuP6 PLUS, CuP7, CuP7 PLUS, CuP8, CuP8 PLUS, CuP8 HP, CuP8 HP PLUS, CuP7Sn, CuP7Sn PLUS, Ag0,4CuP, Ag0,6 CuP, Ag2CuP, Ag2CuP PLUS, Ag2CuP HP, Ag2CuP HP PLUS, Ag5CuP, Ag5CuP PLUS, Ag5CuP HP, Ag5CuP HP PLUS, Ag6CuP LP, Ag6CuP, Ag6CuP PLUS, Ag10CuP, Ag10CuP PLUS, Ag15CuP, Ag15CuP PLUS, Ag15CuP HP, Ag15CuP HP PLUS, Ag15CuP7, Ag18CuP LP, Ag18CuP, Ag18CuP PLUS.**

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

Intended use **Brazing Alloys.**

#### 1.3. Details of the supplier of the safety data sheet

Name **SPECIALISED WELDING PRODUCTS LTD**  
Full address **Unit 1, Farringdon Industrial Centre**  
District and Country **Farringdon, Nr Alton, Hampshire GU34 3DD, UK**

Tel: **+44 (0)1420 588180**  
Fax: **+44 (0)1420 588184**

e-mail address of the competent person responsible for the Safety Data Sheet **sales@swp.uk.net**

1.4. Emergency telephone number **Tel: +44 (0)1420 588180**

### SECTION 2. Hazards identification

According to Regulation (EC) 1272/2008 these products are articles.

#### 2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to (EU) Regulation 2015/830.

Hazard classification and indication: --

#### 2.2. Label elements

This product is not subject to hazard labeling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

#### 2.3. Other hazards

Prevent exposure to and inhalation of fumes that are generated during brazing operations, by means of mechanical ventilation and/or protective masks.

Workers must wear and properly maintain all personal protective equipments supplied, and comply with safety procedures and information. Workers, prior of starting brazing and soldering operations, must be aware of safety procedures to be followed, and must strictly observe those procedures.

Body of worker should be protected by appropriate clothes.

Brazing and soldering operations may present the risk of generation of dangerous metal oxides and metal vapours and fumes (small particles with approx dimensions of millimetres).

Depending on type of exposure, acute intoxication symptoms, due to fast absorption of relevant quantities of toxic elements, and chronic intoxication symptoms, with slow absorption of small quantities of toxic elements, may occur.

Avoid over-heating of product and/or of pieces to be brazed. Do not eat and/or drink on work-place.

### SECTION 3. Composition/information on ingredients

#### 3.1. Substances

Information not relevant

#### 3.2. Mixtures

##### Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
<b>COPPER</b>		
CAS	7440-50-8	$72 \leq x < 96$
EC	231-159-6	
INDEX		
<b>Silver</b>		
CAS	7440-22-4	$0 \leq x < 20$
EC	231-131-3	
INDEX		
<b>Phosphorus</b>		
CAS	7723-14-0	$4 \leq x < 9$
EC	231-768-7	<b>Flam. Sol. 2 H228, Aquatic Chronic 3 H412</b>
INDEX	015-002-00-7	
<b>Tin</b>		
CAS	7440-31-5	$0 \leq x < 8$
EC	231-141-8	
INDEX		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

### SECTION 4. First aid measures

#### 4.1. Description of first aid measures

No episodes of harm to the staff authorised to use the product have been reported. The following general measures should be adopted as necessary:

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Do not give anything by mouth to an unconscious person.

EYES and SKIN: Wash with plenty of water. In the event of persistent irritation, get medical advice/attention.

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

The fumes generated during the brazing process can cause respiratory and / or eye irritation.

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

In case of contact with hot or molten product, apply the usual first aid measures.

### SECTION 5. Firefighting measures

#### 5.1. Extinguishing media

##### SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

##### UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

#### 5.2. Special hazards arising from the substance or mixture

##### HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

**CuP - AgCuP - CuPSn****SECTION 5. Firefighting measures ... / >>****5.3. Advice for firefighters**

## GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

## SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Use breathing equipment if fumes or powders are released into the air. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

**6.3. Methods and material for containment and cleaning up**

Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections**

Any information on personal protection and disposal is given in sections 8 and 13.

**SECTION 7. Handling and storage****7.1. Precautions for safe handling**

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

**7.2. Conditions for safe storage, including any incompatibilities**

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

**7.3. Specific end use(s)**

Information not available

**SECTION 8. Exposure controls/personal protection****8.1. Control parameters**

Regulatory References:

DEU	Deutschland	TRGS 900 (Fassung 4.11.2016) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
DNK	Danmark	Graensevaerdier per stoffer og materialer
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 7 czerwca 2017 r
	TLV-ACGIH	ACGIH 2017

# CuP - AgCuP - CuPSn

## SECTION 8. Exposure controls/personal protection ... />>

### COPPER

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	DEU	0,1		0,2		INHAL
TLV	DNK	1				
VLA	ESP	0,2				
VLEP	FRA	0,2				
WEL	GBR	1		2		
NDS	POL	0,2				
TLV-ACGIH		0,2				

### Silver

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		0,1				

### Tin

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		2				

**Legend:**

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

**HAND PROTECTION**

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

**SKIN PROTECTION**

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

**EYE PROTECTION**

Wear airtight protective goggles (see standard EN 166).

**RESPIRATORY PROTECTION**

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type A filter combined with a type P filter should be worn (see standard EN 14387).

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

**ENVIRONMENTAL EXPOSURE CONTROLS**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance	solid
Colour	pink
Odour	no odour
Odour threshold	Not available
pH	Not applicable
Melting point / freezing point	> 650 °C
Initial boiling point	Not available
Boiling range	Not available
Flash point	Not available
Evaporation rate	Not applicable

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## SECTION 9. Physical and chemical properties ... / >>

Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative density	8,0 - 8,4
Solubility	not applicable
Partition coefficient: n-octanol/water	Not applicable
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not applicable
Explosive properties	not applicable
Oxidising properties	not applicable

### 9.2. Other information

Information not available

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

Silver

Stable in normal conditions of use and storage.

Phosphorus

Stable in normal conditions of use and storage.

Tin

Stable in normal conditions of use and storage.

### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

### 10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

Phosphorus

Avoid exposure to: naked flames, light.

### 10.5. Incompatible materials

Silver

Keep away from: strong acids, strong bases.

Phosphorus

Keep away from: oxidising agents, bases.

Tin

Keep away from: strong bases, halogens, acids.

### 10.6. Hazardous decomposition products

Silver

Develops: silver oxide.

**SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: exposition to fumes is dangerous for worker's health, causing fast poisoning by exposition to metal oxides; may be harmful for skin absorption and for ingestion.

For product inhalation, poisoning can be displayed by various symptoms, such as: eyes, mouth, nose, and throat ache and irritation, cough, difficulty in breathing, dizziness, vertigo, nausea and vomiting.

In worst cases, inhalation may cause: inflammation and oedema of larynx and of bronchi, chemical pneumonia and pulmonary oedema, increase or decrease of heartbeat, excessive salivation or blood sputum, loss of consciousness, behaviour disorders (depression or euphoria).

Brazing fumes may cause irritation of eyes and skin.

**11.1. Information on toxicological effects**

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

Silver	
LD50 (Oral)	> 2000 mg/kg Rat - OECD 401 (Acute Oral Toxicity)

Phosphorus	
LD50 (Oral)	> 15000 mg/kg Rat, Female

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

**CuP - AgCuP - CuPSn****SECTION 11. Toxicological information ... / >>**STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

**SECTION 12. Ecological information**

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

**12.1. Toxicity**

Phosphorus	
LC50 - for Fish	33,2 mg/l/96h Danio rerio
EC50 - for Crustacea	10,5 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	18,3 mg/l/72h Desmodesmus subspicatus

**12.2. Persistence and degradability**

COPPER  
Solubility in water < 0,1 mg/l  
Degradability: information not available

Phosphorus  
Degradability: information not available

Tin  
Degradability: information not available

**12.3. Bioaccumulative potential**

Information not available

**12.4. Mobility in soil**

Information not available

**12.5. Results of PBT and vPvB assessment**

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

**12.6. Other adverse effects**

Information not available

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

**CONTAMINATED PACKAGING**

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

### 14.1. UN number

Not applicable

### 14.2. UN proper shipping name

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

### 14.4. Packing group

Not applicable

### 14.5. Environmental hazards

Not applicable

### 14.6. Special precautions for user

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

## SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006  
None

Substances in Candidate List (Art. 59 REACH)  
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)  
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:  
None

Substances subject to the Rotterdam Convention:  
None

Substances subject to the Stockholm Convention:  
None

Healthcare controls  
Information not available

German regulation on the classification of substances hazardous to water (VwVwS 2005)

### 15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.



## SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

<b>Flam. Sol. 2</b>	Flammable solid, category 2
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H228</b>	Flammable solid.
<b>H412</b>	Harmful to aquatic life with long lasting effects.
<b>EUH210</b>	Safety data sheet available on request.

### LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

### GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
  2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
  3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
  4. Regulation (EU) 2015/830 of the European Parliament
  5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
  6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
  10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
  11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
  12. Regulation (EU) 2016/1179 (IX Atp. CLP)
  13. Regulation (EU) 2017/776 (X Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
  - IFA GESTIS website
  - ECHA website
  - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

**CuP - AgCuP - CuPSn****SECTION 16. Other information ... / >>**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.