

Best Sellers

Order code	Manufacturer code	Description
05-0300	n/a	500GM REEL 16SWG TINNED WIRE
05-0305	n/a	500GM REEL 18SWG TINNED WIRE
05-0310	n/a	500GM REEL 20SWG TINNED WIRE
05-0315	n/a	500GM REEL 22SWG TINNED WIRE
05-0320	n/a	500GM REEL 24SWG TINNED WIRE

Best Sellers	Page 1 of 4
The enclosed information is believed to be correct, Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 04/07/2003

HEALTH & SAFETY DATA SHEET

Our Code: 05-0300 / 05-0305 / 05-0310 / 05-0315 / 05-0320

Product Name: Copper Wire Strip and Strand

Description

High purity copper in the form of wires or rods from 25mm to 20.0mm diameter, strands composed of three or more individual wires and rectangular sections of strip with maximum dimensions of approx 30mm. These products may be in a soft annealed form, hard drawn or any intermediate temper. In addition they may be plain finish or plated with up to approx 0.20mm of high purity tin. Similarly copper with small amounts alloying elements such as silver (up to 0.2%) are also covered. Please refer to 'References' below for relevant British Standards.

Intended Uses

These materials are intended for use in electrical and general engineering. A separate data sheet is available on request for those materials intended for use as welding electrodes or filler metals. An additional data sheet is also available for Copper-Cadmium alloys intended for electrical purposes.

Composition

Copper based material normally with 99.5% minimum copper and up to 15% silver. No other single element will normally exceed 0.15%. In the case of tinned wire, the surface coating of tin is composed of 99.5% tin minimum with no other element exceeding 0.1%.

Typical Physical & Chemical Properties

	Copper	Units
Density	8900	kg/cu.m
Melting Point	1083	deg C
Thermal Conductivity	385	W/m/K
Electrical Conductivity	58	m/Ohm/mm
Tensile Strength	200-550	N/sq.mm

Contact with acids may give rise to harmful gases.

Health Hazards

There are no known health hazards relating to copper and copper alloys in the solid wrought form. Transformation operations, such as remelting, welding or machining (including cutting, grinding, turning etc.,) may give rise to dust or fume, which may present a health risk.

The occupational exposure limits for copper dust and fume are given below for guidance only. Reference should be made to the latest issue of The Health and Safety Executive Guidance Note EH40 (revised annually) for the current Occupational Exposure Limits.

	8 Hour TWA	10 min. TWA
(TWA = Time Weighted Average)	mg/cu.m	mg/cu.m
Copper dust and mist	1.0	2.0
Copper fume	0.2	0.6

Fire and Explosion Hazard

Solid copper and copper alloys do not present a fire or explosion hazard but if exposed to fire or excessive heat they may give rise to fume which may present a health risk as outlined in 'Health Hazards', above.

Storage and Transport

No special precautions should be necessary other than compliance with good housekeeping practices.

Handling and Use

Safe handling practices should be adopted to avoid potential hazards arising from:-

- 1) Heavy piece weights - possible rolling or falling of drums or reels etc.
- 2) The possible collapse or spring release of coiled material.
- 3) The possible presence of sharp edges.

Dust or fumes can be generated by cutting, machining, grinding, welding or re-melting operations. The user should ensure that a proper Assessment is made under Control of Substances Hazardous to Health Regulations 1988. When carrying out this assessment reference should be made to the COSHH Approved Code of Practice and current addition of Guidance Note EH40.

Depending on the assessment, the following precautions may be necessary under certain circumstances:-

- Eye Protection
- Hand Protection
- Safety Footwear
- Protective Clothing
- Respiratory Protection
- Ventilation (general and/or local)

Inhalation

Dust and fume may irritate the nose and/or throat. Fumes may cause Metal Fume Fever, a delayed transient benign flu-like condition. Remove victim from the exposure area to fresh air immediately. Seek medical attention.

Eyes

Dust acts as a foreign body. Immediately irrigate the eyes with plenty of water. Seek medical attention.

Disposal

Due to commercial value of the metal, copper and copper rich alloys will normally be disposed of via a facility able to recycle copper scrap. Collect, package and properly label scrap for collection. All disposal methods must consider the hazards associated with heating, melting or machining outlined in 'Health Hazards' above.

References

Health & Safety at Work Act : 1974.

Control of Substances Hazardous to Health Regulations : 1988.

HSE Guidance Note EH40 : Occupational Exposure Limits.

HSE Guidance Note EH42 : Monitoring Strategies for Toxic substances.

Copper Development Association : 'Copper and Human Health' Publication TN34.

British Standards Nos: 23; 125;174; 1432; 1433; 1434; 1845; 2755; 2870; 2872;
2873; 2874; 839; 4109; 4393; 6017; 6360