Material Safety Datasheet

Trade Name	: Tellurium Copper
Type of Product	: High Electrical Conductivity High Machinability
Nominal Composition	: Tellurium 0.3 – 0.7 % Copper Balance
Physical Characteristics	: Copper coloured metal. Softening temperature 350^0 C. Melting range 1070 to 1080^0 C.
Occupational Exposure Limits (1987)	: Long-term Exposure limit (8 hour TWA value)
	Mg/m^3
Tellurium	: 0.1
Cu Fume	: 0.2
Cu Dust	: 1

The only potential health hazards involved with this product arise from its use. There are no storage or handling problems. If melting the alloy, metal and oxide fumes will be evolved, but it is unlikely that the OELs for the components metals will be exceeded.

Health Hazards General

Under normal conditions. Prolonged heating near or above the melting point of the alloy may result in the liberation of metal fumes, which are hazardous to health. Metal removal processes such as grinding may produce respirable particles of metal dust which would represent a health hazard if inhalation levels exceed the OELs. There is no evidence of any health hazards being associated with the use of this material as a resistance welding electrode material.

Inhalation : Copper fume, if excessive, may cause irritation of the upper respiratory tract, metallic taste in the mouth and metal fume fever. Metal fume fever results in influenza-like symptoms, which may not become apparent for up to 10 hours. Symptoms usually subside after 24 hours, with rest and removal from exposure.

First Aid : Inhalation – remove from exposure and allow to rest. Seek medical advice.

Skin – Not Applicable

Eye – Not Applicable

Ingestion – Not Applicable

Precautionary Measures	: Tests to determine whether or not the OELs are being exceeded can be carried out by sampling the workplace air using personal or static samples. Normal analytical techniques, such as atomic absorption spectrometry can be used to determine copper and chromium. If results show that airborne concentrations are exceeding TLVs adequate local exhaust ventilation should be installed, or workers provided with respiratory protection.
General Metal Removal Processes	: All Metal removing operations such as grinding should be carried out under a copious flow of lubricant and an efficient exhaust system must be coupled with grinding heads to reduce any dust emissions.
Storage	: Keep away from acids.
Reactivity	: This alloy is slowly attacked in the cold by concentrated hydrochloric acid and by dilute sulphuric acid liberating flammable hydrogen gas. The alloy is readily attacked by dilute nitric acid liberating toxic gases of nitrogen oxides and by warm concentrated sulphuric acid liberating toxic sulphur dioxide gas.
Waste Disposal	: All scrap and wastes containing this material such as cutting fluid should be segregated and separately stored in marked containers, the disposing agency being informed that the waste contains Tellurium Copper. If melted care must be taken to ensure that the metal fume concentration does not exceed OELs.