

1. Substance/preparation and company name

Copperfoil / Copper-E(lectro)D(eposited)-Foil

– One or both side treated (standard or reverse)

All Gould germany (Eichstetten Plant) foil types, all thicknesses 9 ...400µm

Company:

Gould Electronics GmbH

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2. Possible hazards

- cuts are possible

- do not inhale dust from copper (MAK=1mg/m³[= germany's maximum working concentration (2000; still actual)])

3. Composition / information on ingredients

Identificationnummer(s): **CAS-Nr. 7440-50-8**

Chemical characterisation:

Copper foil with copper/copper oxide modulation and with/withou brass barrier layer. Antitarnish protection by a flash of Zn and Cr (Cr-III) on both sides.

Hazardous ingredients:

none

4. First aid measures

advice for doctor:

take care, if person is allergical against copper

5. Fire fighting measures

suitable extinguishing media:

no exclusion

6. Accidental release measures
none

7. Handling and storage

The following advices are only valid for the application area of laminates; if you use the foil for other purposes please contact us (see Nr. 1 of this MSDS)

- **use gloves to avoid cuts**
- **store dry in original packing**
- **store separate from corrosive material**

8. Exposure controls and personal protection

- **at work do not drink or eat**
- **use protective gloves**

9. Physical and chemical properties

Form:	solid
Colour:	yellow - redish
Odour:	none
	<u>value/range.</u>
Change in physical state:	
Solidification temperature:	1085 °C
Boiling point:	2563 °C
Flashpoint:	n.a.
Ignition temperature:	n.a.
Danger of explosion:	only dust explosions are possible
Vapour pressure:	n.a.
Density:	8,96 g/cm³
solubility in water:	not
pH-value:	6-8 (Eluat) T= 20°C

10. Stability and reactivity

avoid contact to acids, caustic solution or other corrosive materials.

11. Toxicological information

Inhalation from vapours or smoke from smelted copper can provoce socalled metall fever.

12. Ecological information

Elimination information:	give to recycling process.
Behaviour and invironmental fate:	corrosive attack by air and water.
Ecotoxic effects:	high concentrations of copper ions in water it can be harmful to fish.
Further ecological information:	a negative influence on the biological waste water treatment could not be excluded.
general remark:	Copper is an essential trace element. An daily incorporation from 0,05-0,5mg / kg body weight is unobjectionable for human beings.

13. Disposal considerations

- **give to recycling process**
- European waste number according VO (EG) Nr. 1013/2006:
170401 Copper, Brass, Bronze

14. Transport information

no dangerous good

15. Regulatory information

none

16. other information

The product contains traces of arsenic. In the etching process the arsenic concentration of the etching solution can accumulate to toxic concentrations. The etching solution is then to treat as a toxic chemical and the waste as dangerous waste.