

SAFETY DATA SHEET

according to Regulation (EC) No 1272/2008

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name: InnoMetal Medical 01 Copper

Other names: -

MSDS name: EN_InnoMetal_MSDS_Medical 01 Copper

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

1.2.1. Application of the substance / the mixture

Additional component

1.2.2. Applications advised against

No further relevant information available.

1.3. Details of the supplier of the safety data sheet

InnoMetal GmbH

Einsteinstr. 12

D-33104 Paderborn

Fon: +49 (0)221 9582011

info@lnnometal.de

1.4. Emergency telephone number

Monday – Friday, 9:00 am - 4:00 pm

+49 (0)221 958 2011

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms:



GHS09

Signal word: Warning

Hazard statements:

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P273 Avoid release to the environment.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

Inhalation of dust or fumes leads to irritation of respiratory system. Inhalation of higher concentrations may cause metal fume fever.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.1. Substance

Components:

CAS	EINECS	Chemical name	from %	till %	Index Number
7440-50-8	231-159-6	Copper		100	01-2119480154-42

Labelling (CLP):

CAS	EINECS	Chemical name	Hazard pictograms	Signal word	Hazard statements
7440-50-8	231-159-6	Copper	GHS09	Warning	H400, H412

Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Rinse skin with water/shower.

Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

If symptoms persist consult doctor.

After swallowing: If symptoms persist consult doctor.

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

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing agents:

Special powder for metal fires.

Dry sand

For safety reasons unsuitable extinguishing agents:

Water

5.2. Special hazards arising from the substance or mixture

No further relevant information available.

5.3. Advice for firefighters

Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid formation of dust.

Wear protective clothing.

Do not inhale dust / smoke / mist.

6.2. Environmental precautions

Do not allow to enter sewers/ surface or ground water.

6.3. Methods and material for containment and cleaning up

Pick up mechanically.

6.4. Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Prevent formation of dust.

Information about fire and explosion protection: No special measures required.

7.2. Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles: Store in cool, dry place in tightly closed receptacles.

Information about storage in one common storage facility: Do not store together with oxidizing and acidic materials.

Further information about storage conditions: None.

7.3. Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace:	
7440-50-8 Copper	
WEL	Short-term value: 2** mg/m ³ Long-term value: 0.2* 1** mg/m ³ *fume **dusts and mists (as Cu)

Additional information: The lists valid during the making were used as basis.

8.2. Exposure controls

Respiratory protection: Suitable respiratory protective device recommended. Filter P2.

Protection of hands: Preventive skin protection by use of skin-protecting agents is recommended.



Protective gloves

Eye protection: Goggles recommended during refilling.

Body protection: Protective work clothing.

General protective and hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals. Wash hands before breaks and at the end of work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Information

Appearance:

Form: Powder

Colour: copper coloured

Odour: Odourless

PH-value: Not applicable

Change in condition

Melting point/Melting range: 1083 °C

Boiling point/Boiling range: 2597 °C

Flash point: Not applicable.

Flammability (solid, gaseous): Product is not flammable.

Ignition temperature: Not determined

Decomposition temperature: Not applicable

Self-igniting: Product is not self-igniting.

Danger of explosion: Product does not present an explosion hazard.

Dust can combine with air to form an explosive mixture.

Explosion limits:

Lower: Not determined

Upper: Not determined

Vapour pressure: Not applicable

Density at 20 °C: 8.9 g/cm³

Bulk density: 0.5-5.5 g/cm³

Evaporation rate: Not applicable

Solubility in / Miscibility with water: Insoluble.

Partition coefficient (n-Octanol/water): Not applicable

9.2. Other information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No further relevant information available.

10.2. Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3. Possibility of hazardous reactions

Reacts with acids, alkalis and oxidizing agents.

10.4. Conditions to avoid

No further relevant information available.

10.5. Incompatible materials

No further relevant information available.

10.6. Hazardous decomposition products

No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: No irritant effect.

on the eye: No irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

Inhalation of dust or fumes leads to irritation of respiratory system. Inhalation of higher concentrations may cause metal fume fever.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

No further relevant information available.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity: No further relevant information available.

Terrestrial toxicity:

No further relevant information available.

12.2. Persistence and degradability

No further relevant information available.

12.3. Bio-accumulative potential

No further relevant information available.

12.4. Mobility in soil

No further relevant information available.

Additional ecological information:

General notes: Do not allow product to reach ground water, water course or sewage system.

12.5. Results of PBT and vPvB assessment

Not applicable.

12.6. Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recommendation

Contact manufacturer for recycling information.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste Codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1. UN number

ADR, IMDG, IATA: 3077

14.2. UN proper shipping name

ADR: 3077 UMWELTGEFÄHRDENDER STOFF, FEST, N.A.G. (copper)

3077 ENVIRONMENTALLY HAZARDOUS

SUBSTANCE, SOLID, N.O.S. (copper)

IMDG, IATA: ENVIRONMENTALLY HAZARDOUS

SUBSTANCE, SOLID, N.O.S. (copper)

14.3. Transport hazard class(es)

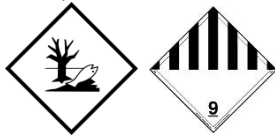
ADR:



Class: 9 Miscellaneous dangerous substances and articles.

Label: 9

IMDG, IATA:



Class: 9 Miscellaneous dangerous substances and articles.

14.4. Packing group

ADR, IMDG, IATA: III

14.5. Environmental hazards

Marine pollutant: yes Symbol (fish and tree)

Special marking (ADR): Symbol (fish and tree)

Special marking (IATA): Symbol (fish and tree)

14.6. Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

Danger code (Kemler): 90

EMS number: F-A,S-F

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:

ADR

Excepted quantities (EQ): E1

Limited quantities (LQ) 5 KG

Transport category 3

Tunnel restriction code E
UN "Model Regulation": UN3077, ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, SOLID, N.O.S., 9, III

SECTION 15: Regulatory information

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

National regulations:

Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

15.2. Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

16.1. Wording of P und H phrases

Relevant phrases

(serves as the explanation for only the hazard and risk phrases noted in the MSDS, e.g. in chapter 3)

H400 Very toxic to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

P273 Avoid release to the environment.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

16.2. Further information

The information provided in this material safety data sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warrant or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This information shall not constitute a guarantee for any specific product feature and shall not establish a legally valid contractual relationship.