

SAFETY DATA SHEET

according to Regulation (EC) No 1272/2008 (REACH)

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

1.1 Product identifier

Trade name: InnoMetal Aged Bronze

Other designations: -

MSDS Name: DE_InnoMetal_MSDS_Aged Bronze_1_

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

1.2.1 Identified use

Additional component

1.2.2 Uses advised against

No relevant information available.

1.3. details of the supplier providing the safety data sheet.

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1.4. emergency number

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SECTION 2: Potential hazards

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The substance is not classified according to GHS (Globally Harmonized System).

The substance is not classified under the CLP Regulation.

Classification system:

The classification corresponds to the current EC lists, but is supplemented by information from the Specialist literature and through company information.

2.2 Marking elements

Labelling according to Regulation (EC) No 1272/2008: Not applicable.

Hazard pictograms: Not applicable.

Signal word: Not applicable.

Hazard statements: Not applicable.

Safety instructions: Not applicable.

2.3 Other hazards

Inhalation of dust or smoke causes irritation of the respiratory tract. Inhalation of higher concentrations can cause fever.

Results of PBT and vPvB assessment:

- PBT: Not applicable.

- vPvB: Not applicable.

SECTION 3: Composition/Information on ingredients

3.2 Mixtures

Description: Alloy of the substances listed below.

Labelling (CLP):

CAS no.	EINECS	Chemical name	from %	to %	Hazard pictograms	Signal word	Hazard warnings
7440-50-8	231-159-6	Copper	40	90	GHS09	Attention	H400, H412
7440-66-6	231-175-3	Zinc powder (rod.)	5	40	GHS09	Attention	H400, H410
7440-31-5	231-141-8	Tin	5	40	-	-	-
7440-22-4	231-131-3	Silver	0	5	-	-	-
7439-96-5	231-105-1	Manganese	10	25	GHS02	Attention	H260
7429-90-5	231-072-3	Aluminium	0	10	-	-	-

Additional information: For the wording of the listed hazard statements, see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

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

After skin contact: Wash skin with water/shower.

In general, the product is not irritating to the skin.

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

Consult a doctor if symptoms persist.

After ingestion: Consult a doctor if symptoms persist.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3. indications for immediate medical help or special treatment

No further relevant information available.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Special powder for metal fires. Do not use water.

Dry sand

Extinguishing media unsuitable for safety reasons:

Water

5.2 Special hazards arising from the substance or mixture

Manganese oxides

5.3 Advice for fire fighting

Special protective equipment for fire fighting:

No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid formation of dust. Wear personal protective clothing. Do not breathe dust/fume/mist.

6.2 Environmental protection measures

Do not allow to enter drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Record mechanically.

6.4 Reference to other sections

See section 7 for safe handling information.

See section 8 for information on personal protective equipment.

SECTION 7: Handling and storage

7.1 Protective measures for safe handling

Information for safe handling: Avoid dust formation.

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

7.2 Conditions for safe storage taking into account incompatibilities

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

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

Further information on storage conditions: None.

Storage class: 13

Classification according to the German Ordinance on Industrial Safety and Health (BetrSichV): -

7.3 Specific end uses

No further relevant information available.

SECTION 8: Exposure controls/personal protective equipment

8.1 Parameters to be monitored

Components with limit values that require monitoring at the workplace:	
7440-50-8 Copper	
AGW (Germany) MAK (Austria)	Long-term value: 1* 0.1** E mg/ m ³ *Dust **Smoke; limit values currently out of force Short-term value: 4 E mg/m ³ Long-term value: 1 E mg/m ³
7440-66-6 Zinc	
MAK (Germany)	Long-term value: 0.1A* 2E** mg/m ³ *alveolar; **inhalable
7440-31-5 tin	
MAK (Germany) MAK (Austria)	cf. section IIb Short-term value: 4 E mg/m ³ Long-term value: 2 E mg/m ³
7440-22-4 silver	
AGW (Germany) MAK (Austria) IOELV (European Union)	Long-term value: 0.1 E mg/m ³ 8(II);DFG, EU Short-term value: 0.1 E mg/m ³ Long-term value: 0.1 E mg/m ³ Long-term value: 0.1 mg/m ³
7439-96-5 manganese	
AGW	0.5 mg/m ³
7429-90-5 aluminium	
AGW (Germany) MAK (Austria)	Long-term value: 3* 10** mg/m ³ 2(II);*alveolar **inhalable fraction; AGS (as metal)

Components with biological limits:	
7429-90-5 aluminium	
BGW (Germany)	200 µg/l Test material: urine Sampling time: end of exposure or end of shift Parameters: Aluminium

Additional notes: The lists valid at the time of compilation served as a basis.

8.2 Exposure controls and monitoring

Respiratory protection: Respiratory protection recommended.

Hand protection: Preventive skin protection by using skin protectant is recommended.



Protective gloves

Eye protection: Safety goggles recommended during decanting.

Body protection: Protective work clothing

Protective and hygienic measures: The usual precautionary measures when handling chemicals must be observed. 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

Form: Powder

Colour: grey

Odour: Odourless

pH value: not applicable

Change of state

Melting point/melting range: 800-1080 °C

Boiling point/Boiling range: Not determined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not determined.

Ignition temperature: Not determined.

Decomposition temperature: Not applicable.

Self-ignition: The product is not self-igniting.

Explosion hazard: The product is not explosive. Dust may form an explosive mixture with air.

Explosion limits

Lower: Not determined.

Upper: Not determined.

Vapour pressure: Not applicable.

Density at 20 °C: 8.0 - 8.9 g/cm³

Bulk density: 3.0 - 4.5 g/cm³

Evaporation rate: Not applicable.

Solubility in / Miscibility with Water: Insoluble.

Partition coefficient (n-octanol/water): Not applicable.

Viscosity: 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

No further relevant information available.

10.3 Possibility of hazardous reactions

Reacts with acids, alkalis and oxidising agents.
Dust explosion hazard.

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 irritant effect.

Sensitisation: No sensitising effect known.

Additional toxicological information:

Inhalation of dust or smoke causes irritation of the respiratory tract. Inhalation of higher concentrations may cause fever.

CMR effects (carcinogenic, mutagenic and toxic for reproduction)
effect): No further relevant information available.

SECTION 12: Environmental information

12.1 Toxicity

Aquatic toxicity:

Marine pollutant.

Terrestrial toxicity:

No further relevant information available.

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

12.5 Results of the PBT and vPvB assessment

Not applicable.

12.6 Other adverse effects

No further relevant information available.

SECTION 13: Disposal instructions

13.1 Waste treatment processes

Contact the manufacturer about recycling.

Must not be disposed of together with household waste. Do not allow to enter drains.

European Waste Catalogue

According to the European Waste Catalogue (EWC), waste code numbers are not product-related but rather

application-related. Waste code numbers should be assigned by the user, if possible in consultation with the waste management authorities, be issued.

Packing

Recommendation: Dispose of in accordance with official regulations.

SECTION 14: Transport information

14.1 UN number

ADR, IMDG, IATA: -

14.2 UN proper shipping name

ADR: -

IMDG, IATA: -

14.3 Transport hazard classes

ADR:-

Class:-

Hazard label:-

IMDG, IATA:-

Class:-

14.4 Packing group

ADR, IMDG, IATA:-

14.5 Environmental hazards

Marine pollutant: Yes

14.6 Special precautions for the user

Not applicable.

14.7. carriage in bulk in accordance with Annex II of MARPOL 73/78 and the IBC Code.

Not applicable.

Transport/further information:

Not a dangerous good according to the above regulations.

SECTION 15: Legislation

15.1. safety, health and environmental regulations/legislation specific to the substance or mixture.

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15.2 Chemical Safety Assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Wording of the H-phrases

Relevant sentences

(only for explanation of H-phrases mentioned in the safety data sheet, e.g. in chapter 3)

H400 Very toxic to aquatic organisms.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

H260 Contact with water liberates flammable gases which may ignite spontaneously.

16.2 Further information

This Safety Data Sheet has been prepared to the best of our knowledge, information and belief concerning this product as of the date shown in the footer of this document. The information is provided as a guide for the safe and responsible use, storage, transport and processing of the product and does not constitute a quality specification. The information relates only to the specific materials indicated and does not apply to the use of these materials in combination with other materials or to the use of these materials in processes unless specifically stated in the text. No rights may be derived from this information. Nor does it constitute the basis for any legally valid agreement.