

# Safety data sheet

## YETI Dental Produkte GmbH

in accordance with REACH Regulation (EC) 1907/2006  
including amending regulation (EU) 2020/878

# SURFACE MARKER

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

Item name: SURFACE MARKER (bronze powder)  
Article 319-0000 / 319-0005  
UFI HM00-Q0KV-300U-FWR6  
Intended use: metal pigments for surface marking  
Manufacturer: YETI Dentalprodukte GmbH  
Industriestrasse 3  
D-78234 Engen  
Information: phone. +49 7733-9410-0 Fax. +49 7733-9410-22  
(Mon-Thurs 8:00 a.m. - 4:30 p.m., Fri 8:00 a.m. - 3:00 p.m.)  
sdb@yeti-dental.com  
Emergency number: phone.: +49 77 33 – 94 10-0 Fax: +49 77 33 94 10-22  
(Mon-Thurs 8:00 a.m. - 4:30 p.m., Fri 8:00 a.m. - 3:00 p.m.)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No. 1272/2008



Flam. Sol.1

GHS02 flame  
H228 flammable solid



GHS09 Environment  
Aquatic Acute 1 H400 Very toxic to aquatic organisms.  
Eye Irrit.2 Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07  
Acute Tox.4 H302 Harmful if swallowed  
Eye Irrit.2 H319 causes serious eye irritation

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### 2.2- Labeling elements

#### Labeling according to Regulation (EC) No. 1272/2008 (CLP)

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

#### Hazard pictograms (CLP)

HGS02, GHS07, GHS09

Signal word (CLP) Danger

Hazardous components for labeling: copper powder

#### Hazard statements (CLP)

H228 flammable solid

H302 harmful if swallowed

H319 causes serious eye irritation

H410 - Very toxic for water organisms with long-term effect.

#### Safety instructions

P210 Keep away from heat/sparks/open flames/hot surfaces. Do not smoke.

P240 Ground container and system to be filled

P241 Use explosion-proof devices Avoid the release of P273 into the environment

P305+P351+P338 in case of contact with eyes: Rinse cautiously with water for several minutes. If possible, remove any contact lenses. Continue rinsing. IF SWALLOWED:

Immediately call a POISON CENTER/doctor.

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

### 2.3- Other dangers

- Results of the PBT and vPvB assessment -

PBT: Not applicable.





vPvB: Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

- Description: platelet-shaped bronze powder

Hazardous ingredients:

CAS: 7440-50-8	Copper powder		Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1)	
EINECS: 231-159-6			Acute Tox. 4, H302; Eye Irrit. 2, H319	> 70%
<hr/>				
CAS: 7440-66-6	zinc powder		Flam. Sol. 1, H228	< 30%
EINECS: 231-175-3			Aquatic Acute 1, H400; Aquatic Chronic1, H410	
Indexnummer: 030-001-01-9				
Reg.Nr. 01-2119467174-37				

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### SECTION 4: First aid measures

#### 4.1 Description of first aid measures:

**After inhalation:** Supply fresh air; if symptoms persist, consult a doctor

**After skin contact:** Wash off immediately with plenty of water and soap. However, in general the product is not irritating to the skin

**In case of eye contact:** If contact with eyes occurs, rinse under running water for several minutes with the eyelids open. If symptoms persist, consult a doctor.

**After swallowing:** Rinse your mouth immediately. Do not induce vomiting, seek medical attention immediately. · Informations for the doctor:

**4.2 Most important acute and delayed symptoms and effects** No further relevant information available.

**4.3 Information about immediate medical attention or special treatment** No further relevant information available.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing agents:**

ABC powder, special powder for metal fires, dry sand

**Not to use:** water

**5.2 Special hazards caused by the substance, its combustion products or resulting gases:**

No relevant data available

**5.3 Advice for firefighting**

**Special protective equipment:**

No special actions required.

### SECTION 6: Accidental release measures

#### 6.1 Personal safety precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected people away. Avoid dust formation

**6.2 Environmental protection measures:**

Do not allow to enter wastewater, drains, soil or waterways.

Inform respective authorities when entering in waters or the sewerage.

**6.3 Methods and materials for containment and cleaning up**

Absorb mechanically with liquid-binding material (sand, kieselguhr, universal binder, acid binder, sawdust). Do not rinse with water or aqueous cleaning agents. Dispose of contaminated material as waste in accordance with Section 13 (observe official regulations). Ensure adequate ventilation.

**Other information:** Danger of slipping

**6.4 Reference to other sections**

For safe handling information see section 7.

For information on personal protective equipment, see Section 8.

Information on disposal, see section 13.

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### SECTION 7: Handling and storage

#### 7.1 Protective measures for safe handling

Store in a cool, dry place in well-sealed containers. Avoid dust formation.  
Collect dust regularly and dispose of it.

**Information on fire and explosion protection:** Keep sources of ignition away - do not smoke.  
Take precautionary measures against electrostatic charging.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Storage:

**Requirements for storage rooms and containers:** Store in a cool and dry place

**Information on common storage:** Not required.

##### Further information on storage conditions:

Keep container tightly closed.

Store in a cool, dry place in well-sealed containers.

##### Storage class:

3

#### 7.3 Specific end use(s):

No further relevant data available.

### SECTION 8: Exposure controls/personal protection

#### Additional information on the design of technical systems:

No further information, see section 7

#### 8.1 Parameters to be monitored

##### Components with workplace-related limit values that require monitoring:

7440-50-8 copper MAK / 1G mg/m<sup>3</sup>

##### DNEL values

#### 7440-50-8 copper powder

Long-term syst. eff. / 0.041 mg/kg bw/d (human)

Short-term syst. eff. / 0.082 mg/kg bw/d (human)

#### 7440-66-6 Zinc powder

Oral	oral soluble	50 mg/day (human)
oral	insoluble	50 mg/day (human)
Dermal	dermal soluble	500 mg/day (human)
	dermal insoluble	5000 mg/day (human)
Inhalative	inhalative soluble	1 mg/m <sup>3</sup> (human)
	inhalatively insoluble	5 mg/m <sup>3</sup> (human)
	709	1.3 mg/m <sup>3</sup> (human)
	710	2.5 mg/m <sup>3</sup> (human)

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### PNEC-values

#### 7440-50-8 copper powder

Wastewater treatment plant	230mg/l (environmental)
Sediment estaurine	288 mg/kg dry weight (environmental)
Freshwater sediment	87 mg/kg dry weight (environmental)
Marine sediment	676 mg/kg dry weight (environmental)
Soil	65.5 mg/kg dry weight (environmental)
Fresh water	7.8 mg/l (environmental)
Sea water	5.2 mg/l (environmental)

#### 7440-66-6 Zinc powder

Wastewater treatment plant	52 mg/l (environmental)
Freshwater sediment	117.8 mg/kg dry weight (environmental)
Marine sediment	56.5 mg/kg dry weight (environmental)
Soil	35.6 mg/kg dry weight (environmental)
Fresh water	20.6 mg/l (environmental)
Sea water	6.1 mg/l (environmental)

**Additional information:** The lists valid during creation served as the basis

### 8.2 Exposure controls and monitoring

#### Personal protective equipment

#### General protective and hygiene measures:

Wash hands before breaks and at the End of work.

Avoid skin contact.

Avoid contact with eyes and skin.

<b>-Respiratory protection:</b>	Not required
<b>-Hand protection:</b>	Not required
<b>-Glove material</b>	the material is subject to various quality characteristics and <b>differs</b> From manufacturer to manufacturer
<b>- Penetration time</b>	must be requested from the manufacturer and adhered to
<b>-Eye protection</b>	with tightly fitting safety goggles is recommended
<b>-Body protection</b>	protective work clothing is recommended and also required in <b>the</b> event of non-compliance



Hand protection



Eye protection



Protective clothing

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### SECTION 9: Physical and chemical properties

- Information on the basic physical and chemical properties
- General Information

<b>Look:</b>	
<b>Form:</b>	powder
<b>Color:</b>	gold
<b>Odor:</b>	Characteristic
<b>Change of state</b>	
<b>Melting point/freezing point</b>	Not determined
<b>Start of boiling/boiling range</b>	>999°C
<b>Flammability (solid, gaseous)</b>	flammable
<b>Auto-ignition temperature</b>	the product is not self-igniting
<b>Explosive properties</b>	the product is not explosive
<b>Density at 20°C</b>	8.32g/m <sup>3</sup>
<b>Bulk density at 20°C</b>	0.6-0.7g/cm <sup>3</sup>
<b>Solubility in/miscibility in water</b>	insoluble
<b>Dynamic viscosity</b>	Not determined
<b>pH value:</b>	Not determined
<b>Melting point/range:</b>	Not determined
<b>Flash point:</b>	Not applicable
<b>Solids content</b>	100%

**9.2 Other information** No further relevant data available

### SECTION 10. Stability and reactivity

#### 10.1 Reactivity

When handled and stored as intended, no dangerous reactions occur.  
No further relevant information available.

#### 10.2 Chemical stability

##### Thermal decomposition/conditions to avoid

No decomposition if stored and handled as intended

#### 10.3 Possibility of hazardous reactions

No dangerous reactions known

#### 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

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity:

Harmful if swallowed

##### Classification-relevant LD/LC50 values:

##### 7440-66-6 Zinc powder

Oral LD50 >2000 mg/kg (rat)

##### Primary irritant effect

##### Corrosion/irritation to the skin

Based on the available data, the classification criteria are not met

##### Serious eye damage/irritation

Causes serious eye irritation

##### Respiratory/skin sensitization

Based on the available data, the classification criteria are not met

##### CMR effects (carcinogenic, mutagenic and reproductive toxic effects) Germ cell mutagenicity

Based on the available data, the classification criteria are not met

##### Carcinogenicity

Based on the available data, the classification criteria are not met

##### Reproductive toxicity

Based on the available data, the classification criteria are not met

##### Specific target organ toxicity after single exposure

Based on the available data, the classification criteria are not met

##### Specific target organ toxicity after repeated exposure

Based on the available data, the classification criteria are not met

##### Danger of aspiration

Based on the available data, the classification criteria are not met

### SECTION 12: Ecological information

#### 12.1 Toxicity

##### Aquatic 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.

##### Further ecological information:

##### General information:

Water hazard class 3 (self-classification): highly hazardous to Water Do not enter undiluted or in large quantities into groundwater, bodies of water or sewage systems let it reach. Hazardous to drinking water even if small amounts leak into the ground

##### 12.5 Results of the PBT and vPvB assessment

##### PBT:

Not applicable.

##### vPvB:

Not applicable.

##### 12.6 Other adverse effects

No further relevant information available.

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### SECTION 13: Disposal considerations

#### Waste treatment methods

##### Recommendation:

Must not be disposed together with household garbage. Do not empty into drains.

#### European waste catalogue

12 01 04 Non-ferrous metal dust and particles

#### Uncleaned packaging:

**Recommendation:** Dispose of in accordance with official regulations.

### SECTION 14: Transport information

#### 14.1 UN number

ADR, IMDG, IATA UN3089

#### 14.2 UN proper shipping name

ADR 3089 FLAMMABLE METAL POWDER N.O.S.  
ENVIRONMENTALLY HAZARDOUS'  
IMDG METAL POWDER, FLAMMABLE, N.O.S. MARINE POLLUTANT  
IATA METAL POWDER, FLAMMABLE, N.O.S.

#### 14.3 Transport hazard classes

ADR, IMDG



Class  
Danger label

4.1 Flammable solids  
4.1

IATA



Class  
Label

4.1 Flammable solids  
4.1

#### 14.4 Packaging group

ADR, IMDG, IATA II



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### 14.5 Environmental Hazards

**Marine Pollutant**

Symbol (Fish and Tree)

**Special Identification (ADR)**

Symbol (Fish and Tree)

### 14.6 Special precautions

**For the user**

Attention: Flammable solid substances

**-Kemler No.**

40

**-EMS No.**

F-G, S-G

**-Segregation groups**

Heavy metals and their salts (including their organometallic compounds) powdered metals

**-Stowage Category**

B

**-Handling Code**

H1 Keep as dry as reasonably practicable

**-Segregation Code**

SG17 Stow „separated from“ goods of classes 2.1 and 3.  
SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6m athwartship shall be maintained.

### 14.7 Transport in bulk in accordance with Annex II of the Maripol Convention and in accordance with IBC code

not applicable

**Transport/further information:**

**-ADR**

**-Limited Quantity (LQ)**

1kg

**-Exempt quantities (EQ)**

code E2

highest net quantity per inner packaging 30g.

highest net quantity per outer packaging 500g.

**-Transport category**

2

**-Tunnel restriction code**

E

**-IMDG**

**-Limited quantities (LQ)**

1kg

**-Exempt quantities (EQ)**

code E2

Maximum net quantity per inner packaging 30g.

Maximum net quantity per outer packaging 500g.

**UN “Model Regulation” UN3089 FLAMMABLE METAL POWDER N.O.S. 4.1, II ENVIRONMENTALLY HAZARDOUS**

## SECTION 15: Regulatory information

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

**-Directive 2012/18/EU**

**-Quantity threshold (in tonnes) for use in lower class establishments 100t**

**-Quantity threshold (in tons) for use in upper class operations 200t**

**-National regulations**

**-Water hazard class:**

WGK 3 (self-classification) highly hazardous to water

**-Other regulations, restrictions and prohibitory regulations**

**-Substances of very high concern (SVHC) according to REACH, Article 57**

*None of the ingredients are included*

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### 15.2 Chemical safety assessment

A chemical safety assessment was not carried out

## SECTION 16: Other information

The information is based on our current state of knowledge, but does not constitute a guarantee of product properties and does not constitute a contractual legal relationship.

The product may not be used for any purpose other than that specified in Section 1 without written permission. The user is responsible for complying with all necessary legal regulations and safety precautions.

### - Relevant sentences

H228 Flammable solid

H302 Harmful if swallowed

H319 Causes serious eye irritation

H400 Very toxic to aquatic organisms.

H410 Very toxic for water organisms with long-term effect.

Customs tariff number: 74062000

### Abbreviations and acronyms

**ADR:** Accord européen relatif au transport international des marchandises Dangereuses par Route (Europäisches Übereinkommen über die internationale Beförderung gefährlicher Güter auf der Straße)

**IMDG-Code:** International Maritime Code for Dangerous Goods (Die Gefahrgutkennzeichnung für gefährliche Güter im Seeschiffsverkehr)

**ICAO:** Internationale Zivilluftfahrtorganisation (IATA: Internationale Flug-Transport-Vereinigung) **GHS:** Globally Harmonized System of Classification, Labelling and Packaging of Chemicals (Global harmonisierte System zur Einstufung und Kennzeichnung von Chemikalien)

**EINECS:** European Inventory of Existing Commercial Chemical Substances (Altstoff-Verzeichnis der EU)

**ELINCS:** European List of Notified Chemical Substances (Europäisches Verzeichnis der auf dem Markt vorhandenen chemischen Stoffe)

**CAS-Nr.:** Chemical Abstracts Service (Internationaler Bezeichnungsstandard für chemische Stoffe)

**LC50:** Lethal concentration, 50% (letale Konzentration, 50%)

**LD50:** Lethal dose, 50% (letale Dosis, 50%)

**PBT:** Persistent Bioaccumulative dan Toxic

**vPvB:** very Persistent and very Bioaccumulative

**Flam.Liq.2:** Entzündbare Flüssigkeiten-Kategorie 2

**Eye Irrit.2:** schwere Augenschädigung/Augenreizung-Kategorie 2

**STOT SE3:** Spezifische Zielorgan-Toxizität (einmalige Exposition)-Kategorie 3

**JArbSchG:** Gesetz zum Schutze der arbeitenden Jugend (Jugendarbeitsschutzgesetz)

**StörfallVO:** Verordnung zur Durchführung des Bundes-Immissionsschutzgesetzes (Störfall-Verordnung)

**VwVwS:** Allgemeine Verwaltungsvorschrift zum Wasserhaushaltsgesetz über die Einstufung wassergefährdender Stoffe in Wassergefährdungsklassen (Verwaltungsvorschrift wassergefährdende Stoffe)

**TRGS:** Technische Regel für Gefahrstoffe, Deutschland

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