

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**remanium star powder 10-30 µm**

Revision date: 07.12.2021

Product code: 102-620-70

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

remanium star powder 10-30 µm

**Further trade names**

Article No.: 102-620-70

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

Health services.

**1.3. Details of the supplier of the safety data sheet**

Company name:	DENTAURUM GmbH & Co. KG	
Street:	Turnstr. 31	
Place:	D-75228 Ispringen	
Telephone:	+49 7231 803 0	Telefax: +49 7231 803 295
e-mail:	info@dentaurum.de	
Internet:	www.dentaurum.com	

**Further Information**

Emergency telephone:  
07:00 - 16:15 (Mo - Do), 07:00 - 13:15 (Fr) +49 7231 803 193  
16:15 - 18:00 (Mo - Do), 13:15 - 18:00 (Fr) +49 7231 803 0

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:  
Acute toxicity: Acute Tox. 4  
Serious eye damage/eye irritation: Eye Irrit. 2  
Respiratory or skin sensitisation: Resp. Sens. 1  
Respiratory or skin sensitisation: Skin Sens. 1  
Germ cell mutagenicity: Muta. 2  
Carcinogenicity: Carc. 1B  
Reproductive toxicity: Repr. 2  
Hazardous to the aquatic environment: Aquatic Chronic 4  
Hazard Statements:  
Harmful if swallowed.  
Causes serious eye irritation.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.  
Suspected of causing genetic defects.  
May cause cancer by inhalation.  
Suspected of damaging fertility.  
May cause long lasting harmful effects to aquatic life.  
Do not breathe dust.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

Cobalt

**Signal word:** Danger

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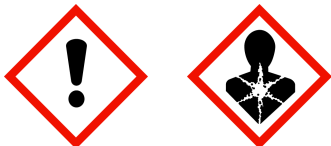
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**Pictograms:****Hazard statements**

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H361f	Suspected of damaging fertility.
H413	May cause long lasting harmful effects to aquatic life.

**Precautionary statements**

P201	Obtain special instructions before use.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

### SECTION 3: Composition/information on ingredients

**3.2. Mixtures****Chemical characterization**

Metal powder.

**Hazardous components**

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	GHS Classification	
7440-48-4	Cobalt	60 - < 65 %
	231-158-0	
	Carc. 1B, Muta. 2, Repr. 2, Acute Tox. 4, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Aquatic Chronic 4; H350i H341 H361f H302 H319 H334 H317 H413	
7440-47-3	Chromium	25 - < 30 %
7440-33-7	Tungsten	5 - < 10 %

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
7440-48-4	231-158-0	Cobalt	60 - < 65 %
		oral: LD50 = 6171 mg/kg	

### SECTION 4: First aid measures

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#### **4.1. Description of first aid measures**

##### **After inhalation**

Provide fresh air. In case of respiratory tract irritation, consult a physician.

##### **After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment.

##### **After contact with eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

In case of troubles or persistent symptoms, consult an ophthalmologist.

##### **After ingestion**

Rinse mouth immediately and drink 1 glass of water. Call a doctor.

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

No data available

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

No data available

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Fire class D

In case of fire: Use extinguishing powder or sand to extinguish.

##### **Unsuitable extinguishing media**

Water. Carbon dioxide (CO<sub>2</sub>)

#### **5.2. Special hazards arising from the substance or mixture**

Contains: Sensitizer. May cause sensitization by inhalation and skin contact.

#### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

#### **Additional information**

Do not allow water used to extinguish fire to enter drains or waterways.

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

##### **General measures**

Equipment with built-in suction provisions. Avoid breathing dust/mist. Avoid contact with skin, eyes and clothes. Wear personal protection equipment. Avoid dust formation.

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

#### **6.3. Methods and material for containment and cleaning up**

##### **For cleaning up**

Avoid dust formation. Take up mechanically, placing in appropriate containers for disposal.

#### **6.4. Reference to other sections**

Personal protection equipment: see section 8

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Avoid dust formation. Avoid breathing dust/mist. Avoid contact with skin, eyes and clothes. If handled

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uncovered, arrangements with local exhaust ventilation have to be used.

**Advice on protection against fire and explosion**

Dust can form an explosive mixture with air.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep/Store only in original container.

**Hints on joint storage**

TRGS 510

**Further information on storage conditions**

Keep container tightly closed. Store in a cool dry place.

**7.3. Specific end use(s)**

No data available

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7440-47-3	Chromium	-	0.5		TWA (8 h)	WEL
-	Tungsten compounds (as W): insoluble compounds and others	-	5		TWA (8 h)	WEL
		-	10		STEL (15 min)	WEL

**8.2. Exposure controls****Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

**Protective and hygiene measures**

Do not breathe dust.

Avoid contact with skin, eyes and clothes.

**Eye/face protection**

Tightly sealed safety glasses.

**Hand protection**

Recommendation: z. B. Dermatril 740 (Fa. KCL)

Suitable material: Nitriles

Thickness of glove material: 0,11 mm

penetration time (maximum wearing period): > 480 min

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Personal protection equipment

**Respiratory protection**

Particle filter device (DIN EN 143): FFP3

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**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	Powder	
Colour:	grey	
Odour:	odourless	
pH-Value:		No data available

**Changes in the physical state**

Melting point:		1200-1450 °C
Boiling point or initial boiling point and boiling range:		No data available
Flash point:		not applicable

**Flammability**

Solid/liquid:		negative
Gas:		negative

**Explosive properties**

The product is not: Explosive

Lower explosion limits:		No data available
Upper explosion limits:		No data available

**Self-ignition temperature**

Solid:		No data available
Gas:		No data available

Decomposition temperature: No data available

Vapour pressure: not applicable

Vapour pressure: not applicable

Density: 8,6 g/cm<sup>3</sup>Bulk density: 3800-4200 kg/m<sup>3</sup>

Water solubility: No data available

Partition coefficient n-octanol/water: not applicable

Viscosity / dynamic: not applicable

Viscosity / kinematic: not applicable

Relative vapour density: not applicable

**9.2. Other information**

No data available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No risks worthy of mention.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

The product is stable under storage at normal ambient temperatures. Avoid dust formation.

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**10.5. Incompatible materials**

Acids, Base

**10.6. Hazardous decomposition products**

Release of: metalloids and metals and their compounds (cobalt, chromium)

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Harmful if swallowed.

**ATEmix calculated**

ATE (oral) 826,4 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7440-48-4	Cobalt				
	oral	LD50 mg/kg	6171	Rat	

**Irritation and corrosivity**

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Cobalt)

May cause an allergic skin reaction. (Cobalt)

May cause sensitization by inhalation and skin contact.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Suspected of causing genetic defects. (Cobalt)

May cause cancer by inhalation. (Cobalt)

Suspected of damaging fertility. (Cobalt)

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Practical experience**

Irritating to eyes. Irritating to skin.

**11.2. Information on other hazards****Other information**

No data available

**SECTION 12: Ecological information****12.1. Toxicity**

No data available

**12.2. Persistence and degradability**

No data available

**12.3. Bioaccumulative potential**

No data available

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**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

No data available

**12.6. Endocrine disrupting properties**

No data available

**12.7. Other adverse effects**

No data available

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Dispose of waste according to applicable legislation. For recycling, contact recycling exchanges.

**SECTION 14: Transport information****Land transport (ADR/RID)****14.1. UN number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)****14.1. UN number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)****14.1. UN number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)****14.1. UN number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

Danger releasing substance:

No dangerous good in sense of this transport regulation.

**14.6. Special precautions for user**

Personal protection equipment: see section 8

**14.7. Maritime transport in bulk according to IMO instruments**

No data available

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

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Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 3 - highly hazardous to water

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 2,3,5,8,11.

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Eye Irrit. 2; H319	Calculation method
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method
Muta. 2; H341	Calculation method
Carc. 1B; H350i	Calculation method
Repr. 2; H361f	Calculation method
Aquatic Chronic 4; H413	Calculation method

**Relevant H and EUH statements (number and full text)**

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
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H341	Suspected of causing genetic defects.
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H413	May cause long lasting harmful effects to aquatic life .

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*