

Safety Data Sheet

according to Regulation (EC) No 1907/2006

rematitan® powder 15 - 45 µm

Revision date: 02.10.2024

Product code: 100-145

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

1.1. Product identifier

rematitan® powder 15 - 45 µm

Further trade names

Article No.: 100-145-00

UFI:

675C-0WQK-XVEP-MA15

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

Contact person: Chemie

Internet: www.dentaurum.com

1.4. Emergency telephone number:

+497231803-184 7:00-16:15 (Mo-Do) 7:00-13:15 (Fr)

+497231803-0 16:15-18:00 (Mo-Do) 13:15-18:00 (Fr)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Sol. 1; H228

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Signal word: Danger

Pictograms:



Hazard statements

H228 Flammable solid.

Precautionary statements

P370 In case of fire:

P378 Use dry sand to extinguish.

P243 Take action to prevent static discharges.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P240 Ground and bond container and receiving equipment.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

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3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7440-32-6	Titanium			80-95 %
	231-142-3			
7429-90-5	aluminium powder (stabilised)			5-10 %
	231-072-3	013-002-00-1		
	Flam. Sol. 1, Water-react. 2; H228 H261			
7440-62-2	Vanadium			3-8 %
	231-171-1			

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

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

After ingestion

Rinse mouth immediately and drink 1 glass of of water.

Do NOT induce vomiting.

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

May cause an allergic skin reaction.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Fire extinguishing agent D. Limestone powder

Unsuitable extinguishing media

Water

5.2. Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance itself, combustion products, resulting gases: Dust can form an explosive mixture with air.

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5.3. Advice for firefighters

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

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Respiratory protection necessary at:

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Other information

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.
Avoid dust formation.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13 See section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Take action to prevent static discharges.
Provide adequate ventilation.

Advice on general occupational hygiene

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Provide adequate ventilation.

Further information on handling

Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep/Store only in original container. Store in a cool dry place. Avoid high temperatures or direct sunlight.

7.3. Specific end use(s)

Health services.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection.

Hand protection

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

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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.

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

Suitable material: Nitriles

Thickness of glove material: 0,11 mm

penetration time (maximum wearing period): > 480 min

Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Filtering device (full mask or mouthpiece) with filter: P1

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid, Metal powder
Colour:	silver grey
Odour:	odourless
Odour threshold:	not determined
Melting point/freezing point:	1605-1660 °C
Boiling point or initial boiling point and boiling range:	3250 °C
Flammability:	Flammable solid.
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	not applicable
Auto-ignition temperature:	493 °C
Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / kinematic:	No data available
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Vapour pressure:	No data available
Density (at 20 °C):	4,43 g/cm³
Bulk density:	No data available
Relative vapour density:	not determined
Particle characteristics:	not determined

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

not determined

Gas:

not applicable

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Other safety characteristics

Evaporation rate:	not determined
Solid content:	not determined
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
Viscosity / dynamic:	No data available
Flow time:	No data available

Further Information

Dust can form an explosive mixture with air.

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

The product is chemically stable under recommended conditions of storage, use and temperature.

Explosion hazard with: Heat

Flammable solid.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

The product is chemically stable under recommended conditions of storage, use and temperature.

In case of fire: In contact with water releases flammable gases.

10.4. Conditions to avoid

Take action to prevent static discharges.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

May form combustible dust concentrations in air.

10.5. Incompatible materials

Combustible substance

Oxidizing agent.

halogenated hydrocarbons

10.6. Hazardous decomposition products

none

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

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

Irritation and corrosivity

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

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

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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.

11.2. Information on other hazards

Other information

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Further information

No indication of human carcinogenicity. No indications of human germ cell mutagenicity exist.

SECTION 12: Ecological information

12.1. Toxicity

No information available.

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

12.4. Mobility in soil

titanium: 1.582

vanadium: 1.582 Source: EPI SUITE

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

Consult the appropriate authorities about waste disposal. Ignitable Waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:

UN 3089

14.2. UN proper shipping name:

METAL POWDER, FLAMMABLE, N.O.S.

14.3. Transport hazard class(es):

4.1

14.4. Packing group:

II

Hazard label:

4.1

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Classification code: F3
Special Provisions: 552
Limited quantity: 1 kg
Excepted quantity: E2
Transport category: 2
Hazard No: 40
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 3089
14.2. UN proper shipping name: METAL POWDER, FLAMMABLE, N.O.S.
14.3. Transport hazard class(es): 4.1
14.4. Packing group: II
Hazard label: 4.1



Classification code: F3
Special Provisions: 552
Limited quantity: 1 kg
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number or ID number: UN 3089
14.2. UN proper shipping name: METAL POWDER, FLAMMABLE, N.O.S.
14.3. Transport hazard class(es): 4.1
14.4. Packing group: II
Hazard label: 4.1



Special Provisions: -
Limited quantity: 1 kg
Excepted quantity: E2
EmS: F-G, S-G

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 3089
14.2. UN proper shipping name: METAL POWDER, FLAMMABLE, N.O.S.
14.3. Transport hazard class(es): 4.1
14.4. Packing group: II
Hazard label: 4.1



Special Provisions: A3 A803
Limited quantity Passenger: 5 kg
Passenger LQ: Y441
Excepted quantity: E2
IATA-packing instructions - Passenger: 445
IATA-max. quantity - Passenger: 15 kg

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IATA-packing instructions - Cargo:

448

IATA-max. quantity - Cargo:

50 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: flammable solids.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 40

National regulatory information

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): 1,2,9,13.

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Abbreviations and acronyms

Water-react: Substance and mixture which, in contact with water, emits flammable gas
Flam. Sol: Flammable solid
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Relevant H and EUH statements (number and full text)

H228	Flammable solid.
H261	In contact with water releases flammable gases.

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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)