



According to EU Directive 1907/2006 (REACH)  
 Date of issue: 01.09.2018 Revision: 2

Page 1 of 3  
 Printing date: 26.02.2019

**Titan BioStar Grade 5**

**1. Identification of the substance / Preparation and Company:**

Product identifier:  
 Commercial product name: Titan BioStar - Grade 5  
 Substance/ preparation: Ti Al6V4 alloy  
 Details of the supplier of the safety data sheet  
 Manufacturer/Supplier: ERNST HINRICHS Dental GmbH  
 Street / mailbox: Borsigstr. 1  
 Country code. / postal code / city: D - 38644 Goslar  
 Phone: 0 53 21 / 5 06 24  
 Fax: 0 53 21 / 5 08 81  
 E-mail / Website: [info@hinrichs-dental.de](mailto:info@hinrichs-dental.de) / [www.hinrichs-dental.de](http://www.hinrichs-dental.de)  
 Further information obtainable from: ERNST HINRICHS Dental GmbH  
 Emergency telephone number  
 ERNST HINRICHS Dental GmbH: +49 (0) 53 21 / 5 06 24 - 25 (Mon-Fri. 8 a.m. – 4 p.m.)

**2. Hazards Identification:**

Titanium is attacked vigorously by hydrofluoric/nitric acid mixtures: can ignite in the presence of dry chlorine at room temperature; explosive reactions with red fuming nitric acid have been reported (not with normal concentrations): undergoes a termite-like reaction with iron oxide at elevated temperatures

**3. Composition / Information on Ingredients:**

Semi-finished product made of pure titanium DIN ISO 5832-2  
 Information on the chemical composition is contained in technical standards and regulations

	%	CAS-Nb.
Titanium	90	7440-48-4
Aluminium	6	7429-90-5
Vanadium	4	7440-62-2

**4. First aid measures:**

After inhalation: N/A  
 After skin contact: N/A  
 After eye contact: N/A  
 After swallowing: N/A

**5. Fire Fighting measures:**

Suitable extinguishing agents: Cover with dry sand or salt.  
 Extinguishing media that are suitable on safety grounds: Water, foam, liquids, gas-filled or similar fire extinguishers.  
 Specific hazards due to the product itself, its combustion products or resulting gases: No information.  
 Specific protective equipment for fire-fighting: Conventional safety equipment practices.

**6. Accidental release measures:**

Personal safety precautions: Conventional safety equipment practices.  
 Environmental precautions: No know evidence for negative behaviour of the product in the environment.  
 Methods for cleaning up: Conventional cleaning processes for semi-finished metallic products.

**7. Handling and Storage:**

Handling: No restrictions.  
 Storage: No restrictions.



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Page 2 of 3  
Printing date: 26.02.2019

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### 8. Exposure controls / Personal protection:

Exposure limits:	-
Measures for limiting Exposure and Monitoring:	-
Technical measures:	-
Parameters to monitor:	None.
Personal protective equipment:	-
Breathing protections:	-
Skin protection:	Protective gloves.
Eye protection:	Safety glasses.
Body protection:	Suitable protective clothing.

### 9. Physical and chemical properties:

Appearance:	Silver-gray metal, similar to stainless steel, generally duller appearance.
Physical state:	Solid
Odour:	None
PH-value:	N/A
Melting point / Melting range:	Ca. 1650°C
Boiling point or range:	Ca. 3660°C
Flash point:	No information.
Flammability:	No flammability for the rod metal: accumulations of machining chips or other finely divided forms of the substance should be avoided, and these should be removed from the vicinity of active machines and stored temporarily in closed steel containers at a separate location.
Self-ignitability:	Can ignite in the presence of dry chlorine at room temperature.
Explosion hazard:	Explosive reactions with red fuming nitric acid have been reported (not with normal concentrations).
Oxidizing properties:	No information.
Vapour pressure:	No information.
Relative density:	4,5 g/cm <sup>3</sup>
Solubility:	Insoluble in water.
Partition coefficient:	No information.
Other data:	-

### 10. Stability and Reactivity:

Conditions to avoid:	Titanium is attacked vigorously by hydrofluoric/nitric acid mixtures
Substances to avoid:	Can ignite in the presence of dry chlorine at room temperature; explosive reactions with red fuming nitric acid have been reported (not with normal concentrations): undergoes a termite-like reaction with iron oxide at elevated temperatures.
Hazardous decomposition products:	-
Necessary / available stabilizer:	-
Hazardous exothermic reactions:	-
Hazardous decomposition products on contact with water:	None.
Decomposition to unstable:	None.

### 11. Toxicological Information:

Inhalation:	Titanium is non-toxic and is safe to handle in bulk form.
Skin contact:	However, if titanium dust or vapours are produced, it is recommended to provide adequate suction or ventilation, in order to avoid contact with the eyes or respiratory organs.



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Page 3 of 3  
Printing date: 26.02.2019

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Eye contact: -  
Swallowing: -

**12. Ecological Information:**

Mobility:  
Persistence and degradability:  
Potential for bioaccumulation:  
Water toxicity:  
Ecotoxicity:

No known evidence for negative behaviour of the product in the environment

**13. Disposal Considerations:**

Not for the semi-finished products.  
Do not store in dust, grinding waste, and dust aggregates in suction cleaning devices!  
Eliminate these as rapidly as possible.

**14. Transport Information:**

Not a hazardous material with respect to the established ordinances.

**15. Regulatory Information:**

Designation according to EG guidelines:  
Code letter and hazard designation of product:  
Risk phrases:  
Safety Phrases:  
National regulations:

None

**16. Further Information:**

These data are based on our present knowledge and relate to the product in its as-delivered condition. They are intended to describe the safety requirements of our products and do not constitute a guarantee for any specific products properties.

N/A = not applicable