



Revision: 18.04.2023

Version number 9

Titan BioStar Grade 5

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

- 1.1 Product identifier:**
Commercial product name: Titan BioStar - Grade 5
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:** No further relevant information available.
- Application of the substance / the mixture:** For the production of dental prostheses in the dental laboratory
- 1.3 Details of the supplier of the safety data sheet**
- Manufacturer:** Eisenbacher Dentalwaren ED GmbH
Street / mailbox: Dr. - Konrad - Wiegand - Straße 9
Country code. / postal code / city: 63939 Wörth / Main, Germany
Phone: 0049 9372 / 94 04 - 0
E-mail / Website: www.eisenbacher.de
Information: product management tel.: +49 93 72 - 94 04 - 0
or by mail: info@eisenbacher.de
- Supplier:** ERNST HINRICHS Dental GmbH
Street / mailbox: Borsigstr. 1
Country code. / postal code / city: DE - 38644 Goslar
Phone: +49 (0) 53 21 / 5 06 24
Fax: 0 53 21 / 5 08 81
E-mail / Website: info@hinrichs-dental.de / www.hinrichs-dental.de
- 1.4 Emergency telephone number:** Tel.: +49 621 49085 600, Monday to Friday 8.30 am to 3.15 pm MEZ in German and English language
Please also contact the national emergency numbers

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture**
Classification according to Regulation (EC) No 1272/2008: The product is not to be classified according to the GB CLP regulation.
- 2.2 Label elements**
Labelling according to Regulation (EC) No 1272/2008:
- Hazard pictograms:** Void
- Signal word:** Void
- Hazard statements:** Void

SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation:** Mixtures
- Description:** Titanium alloy
- Dangerous components:**
- CAS: 7429-90-5 aluminium powder (stabilised)
EINECS: 231-072-3 Flam. Sol. 1, H228; Water-react. 2, H261
Index number: 013-002-00-1



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Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of symptoms.

After skin contact: Wash with water and soap.

After eye contact: Rinse opened eye for 15 minutes under running water. Then consult doctor.

After swallowing: Rinse out mouth and then drink plenty of water (approx. 500 ml). In case of persistent symptoms consult doctor.

4.2 Most important symptoms and effects, both acute and delayed: No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed o further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing Media:

Suitable extinguishing media: Use firefighting measures that suit the environment. CO₂, extinguishing powder or water jet. Fight larger fires with foam.
ABC powder
Sand

For safety reasons unsuitable extinguishing agents: Water.

5.2 Special Hazards arising from the substance or mixture: Fire can cause release of :
Metal vapour and metal oxides as fumes.

**5.3 Advice for fire fighters:
Protective equipment:** Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Avoid causing dust.
Wear protective clothing.
Ensure adequate ventilation
Use breathing protection against the effects of fumes/dust/aerosol.

6.2 Environmental precautions: Do not allow product to reach sewage system or water bodies.

6.3 Methods and material for containment and clear up: Collect mechanically.

6.4 Other information: See section 7 for information on safe handling



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See section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Prevent formation of dust.
Provide suction extractors if dust is formed.
Ensure good ventilation/exhaustion at the workplace.
Extractors are required on all machines used for thermal processing or metal removal processes.

Information about protection against explosions and fires: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities
Storage

Requirements to be met by storerooms and containers: Store only in the original container.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Store in cool, dry conditions in well-sealed containers.

7.3 Specific end use(s): No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:
Components with critical values that require monitoring at the workplace:

7429-90-5 aluminium powder (stabilised)
WEL (Great Britain) Long-term value: 10* 4** mg/m³
*inhalable dust **respirable dust

Ingredients with biological limit values:

CAS No.	Designation of material	%	Type	Value	Unit
	General dust exposure limit, measured as alveolic part		German TRGS 900 (2015)	1,25	mg/m ³

Additional information: The lists that were valid during compilation were used as a basis.

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures: The usual precautionary measures should be adhered to in handling the chemicals.
Wash hands during breaks and at the end of the work.
Do not eat, drink or smoke while working.
Avoid contact with the eyes and skin.
Do not inhale dust / smoke / mist.

Breathing equipment: Use breathing protection in case of insufficient ventilation.
Short term filter device: ABEK-filter
Filter P3.



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Protection of hands:	Protective gloves: In case of spray contact at least protection index 2 recommended, according to more than 30 min. penetration time (EN 374). Layer thickness of gloves at least: 0.4 mm In case of prolonged and intensive contact protection index 6 recommended, according to more than 480 min. penetration time (EN 374). Layer thickness of gloves at least: 0.7 mm
Material of gloves:	Butyl rubber, BR Fluorocarbon rubber (Viton) Nitrile rubber, NBR Natural rubber, NR Chloroprene rubber, CR Neoprene gloves
Penetration time of glove material:	The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection:	Safety glasses (DIN 58211, EN 166)
Body protection:	Light weight protective clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Solid
Colour:	Grey
Smell:	Odourless
Odour threshold:	not applicable
pH-value:	not applicable
Change in condition	
Melting point/freezing point:	1,650-1,700 °C
Initial boiling point and boiling range:	not applicable
Flash point:	not applicable
Inflammability (solid, gaseous):	not applicable
Auto-ignition temperature:	not applicable
Decomposition temperature:	not determined
Explosive properties:	Product is not explosive.
Critical values for explosion:	
Lower:	not applicable
Dust explosion class:	
Oxidising properties:	not applicable
Steam pressure:	not applicable
Density at 20 °C:	4.4 g/cm ³
Evaporation rate:	not applicable
Solubility in / Miscibility with	
Water:	Unsoluble
Partition coefficient: n-octanol/water:	not applicable
Viscosity:	
dynamic:	not applicable
kinematic:	not applicable



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Solvent content:
Solids content: 100.0 %

9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity: No hazardous reactions when stored and handled according to instructions.

10.2 Chemical Stability:
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions: No dangerous reactions known

10.4 Conditions to be avoided: No further relevant information available.

10.5 Materials to be avoided: No further relevant information available.

10.6 Hazardous decomposition products: Formation of metal vapour when melting

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity: Based on the available information, the classification criteria are not fulfilled.

Primary irritant effect:

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

Serious eye damage/irritation: Moderate irritation

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

Additional toxicological information: Inhalation of dust may cause irritation of the respiratory tract. Irritation of the eyes and skin is possible from direct contact with the dust.

Repeated dose toxicity: No further relevant information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction): No further relevant information available.

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.

STOT-single exposure: Based on available data, the classification criteria are not met.



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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.

SECTION 12: Ecological information

12.1 Toxicity:

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability:

Other information: Inorganic salts are basically not biodegradable.

12.3 Bioaccumulative potential:

Does not accumulate in organisms

12.4 Mobility in soil:

No further relevant information available.

Ecotoxicological effects:

Other information:

No COD, no BOD, no AOX

No VOC (0%) according to EC-directive 1999/13/EC

Additional ecological information:

General notes:

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into soil.

12.5 Results of PBT and vPvB assessment:

PBT:

Not applicable.

vPvB:

Not applicable.

12.6 Other adverse effects:

No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation:

Must not be disposed of together with household garbage.
Do not allow product to reach sewage system.
Must be specially treated in adherence to official regulations.

Uncleaned packaging:

Recommendation:

Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning.
Packaging that cannot be cleaned are to be disposed of in the same manner as the product.
Dispose of packaging according to regulations on the disposal of packaging.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID/ADN, IMDG, IATA:

Void

14.2 UN proper shipping name

ADR/RID/ADN, IMDG, IATA:

Void

14.3 Transport hazard class(es)

ADR/RID/ADN, IMDG, IATA

Class:

Void



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14.4 Packing group ADR/RID/ADN, IMDG, IATA:	Void
14.5 Environmental hazards	Not applicable.
14.6 Special precautions for user:	Not applicable.
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code. Transport/Additional information: UN "Model Regulation":	Not applicable. Not dangerous according to the above regulations. Void

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Directive 2012/18/EU

Named dangerous substances - ANNEX I: None of the ingredients is listed.

15.2 Chemical Safety Assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

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

Department issuing data specification sheet: AWETA

Contact: sales manager, AWETA
info@srl-dental.de

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international 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 Harmonised 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 (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Sol. 1: Flammable solids – Category 1

Water-react. 2: Substances and mixtures which in contact with water emit flammable gases – Category 2

Sources: source ECHA: European Chemicals Agency,
<http://echa.europa.eu/>

* Data compared to the previous version altered.