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Company Ivoclar Vivadent AG, Bendererstrasse 2, FL - 9494 Schaan

Fürstentum Liechtenstein

1 Commercial product name and supplier

1.1 Commercial product name / Aries

Designation

Application / Use

1.2

Ceramic alloy

1.3 Producer Ivoclar Vivadent, Inc.

175 Pineview Drive, Amherst NY 14228, USA

Supplier

1.4 TOX emergency number

Official USA: Infotrac 1-800-535-5053

Canada: Canutec 1-613-996-6666

Emergency-Call LI: +423 / 235 35 35 or 373 40 40

2 Hazards identification

Avoid breathing of grinding dust and vapours. Melted material may

cause burns.

3 Composition

3.1 Chemical characterization

Dental alloy made of:

Pd 63.7 % (7440-05-3), Ag 26.0 % (7440-22-4), Sn 7.0 % (7440-02-0), Ga 1.8 % (7440-55-3), In 1.5 % (7440-74-6), < 1.0 % Ru, Re

3.2 Hazardous components

3.3 Further information None.

4 First aid measures

4.1 Eye contact Flush eyes with plenty of water. Call a physician if irritation persists.

4.2 Skin contact Melted material presents a special hazard of deep thermal burns. If

burn occurs, treat as any thermal burn.

4.3 Ingestion Call a physician immediately.

4.4 Inhalation Remove to fresh air.

4.5 Further information None.

8.4

Environmental exposure controls

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5	Fire-fighting measures				
5.1	Suitable extinguishing media	Not required. Not combustible.			
5.2	Extinguishing media to avoid	Do not use direct water stream.			
5.3	Further information	None.			
6	Accidental release measures	Clean up mechanically. Clean and reuse.			
7	Handling and storage				
7.1	Handling	Only adequately trained personne	l should handle this pr	oduct.	
7.2	Industrial hygiene	Usual hygienic measures for dental practice.			
7.3	Storage	No specific requirements.			
7.4	Place of storage	No specific requirements.			
7.5	Fire- and explosion-protection	No specific requirements.			
8	Exposure controls / Personal prote	ection			
8.1	Exposure controls	Provide adequate local ventilation. Control airborne concentration below the exposure guideline.			
8.2	Exposure limit values	Dust and vapors: MAK 0.1 mg/m	3		
8.3	Occupational exposure controls				
8.3.1	Respiratory protection	If metal fumes are present, use an particulate respirator (P3). In dusty atmospheres, use an appr			
8.3.2	Hand protection	Gloves.			
8.3.3	Eye protection	Safety goggles.			
8.3.4	Other	Use only with adequate ventilatio	n.		

Not applicable.

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9	Physical	and	chemical	properties
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9.1 Appearance solid9.2 Colour white9.3 Odour odourless

9.4 Change of physical state

Test method:

Melting range 1165-1290 °C 2130-2355 °F Casting temperature 1345-1405 °C 2455-2560 °F

9.5 Density $10.8 \text{ g/cm}^3 (20^{\circ}\text{C})$

9.6 Vapour pressure

not applicable

9.7 Viscosity

not applicable

9.8 Solubility

Solubility in water

non soluble

9.9 pH

Not applicable.

9.10 Flash point

not applicable

9.11 Ignition temperature

Not applicable.

9.12 Explosion limits Lower:

Upper:

not applicable

9.13 Further information

Part. coeff. n-octanol/water

Evaporat. rate

Complies with ISO 9693

10 Stability and reactivity

10.1 Thermal decomposition None, if used in accordance to instructions.

10.2 Hazardous decomposition products None, if used in accordance to instructions.

10.3 Conditions / materials to avoid None, if used in accordance to instructions.

10.4 Further information None.

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Transport information

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		Laitea	Defeted
11	Toxicological information		
11.1	Acute toxicity	Alloy: non-cytotoxic, non-mutage	enic, non-irritant, non-sensitizer.
11.2	Subacute / Chronic toxicity	Fumes or dusts generated from cu cause respiratory irritation.	atting or grinding operations may
11.3	Further information	None.	
12	Ecological information		
12.1	Ecotoxicity	No relevant information is available No risk expected.	ble.
12.2	Mobility	No risk expected.	
12.3	Persistence and degradability	No risk expected.	
12.4	Bioaccumulative potential	No risk expected.	
12.5	Further information	No ecological problems to be antiused. nearly insoluble	icipated if properly handled and
13	Disposal considerations	Recycling	
13.1	EU waste key	17 04 07	

14.1	Transport at land	ADR		RID	
		UN Number Packing Group Proper shipping		Kemler Number	
14.2	Transport at sea	ADNR		IMDG	
		10101 1			

UN Number ---

EMS --- MFAG ---

Packing Group --Proper shipping name ---

Marine pollutant

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The above mentioned data correspond to our present state of knowledge and experience. The safety data sheet serves as description of the products in regard to necessary safety measures. The indications do not have the meaning of guarantees on properties.