

Material Safety Data Sheet

4all



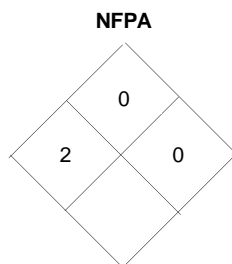
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Company Ivoclar Vivadent AG, Bendererstrasse 2, FL - 9494 Schaan
Principality of Liechtenstein

1 Commercial product name and supplier

1.1 Commercial product name / Designation **4all**



| HMIS | |
|------|---|
| H | 2 |
| F | 0 |
| R | 0 |
| C | |

1.2 Application / Use Ceramic alloy

1.3 Producer Ivoclar Vivadent AG, Bendererstrasse 2, 9494 Schaan
Principality of Liechtenstein (FL)

1.4 Supplier Ivoclar Vivadent, Inc.
175 Pineview Drive, Amherst NY 14228, USA
2785 Skymark Ave., Unit 1 Mississauga, ON L4W4Y3, Canada
MSDS prepared by Andejeet Gulati. Tel. No. 716 691-0010

1.5 24 Hour Emergency Assistance Emergency-Call USA- Infotrac: 1-800-535-5053
Emergency-Call Canada - Canutec: 1-613-996-6666

General MSDS Assistance US: 1-800-533-6825
Canada: 1-800-263-8182

2 Composition

2.1 Chemical characterization Dental alloy made of:
Ni 61.4 % (CAS-Nr. 7440-02-0), Cr 25.7 % (7440-47-3), Mo 11.0 %
(7439-98-7), Si 1.5 % (7440-21-3), < 1.0 % Mn, Al, C

2.2 Hazardous components

2.3 Further information None.

3 Hazards identification

May cause sensitization by inhalation and skin contact. Avoid breathing of grinding dust and vapours.
Melted material may cause burns.

4 First aid measures

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

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- | | | |
|-----|---------------------|-------------------------------------------------------------------------------------------------------------|
| 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. |
-

5 Fire-fighting measures

- | | | |
|-----|------------------------------|------------------------------------|
| 5.1 | Suitable extinguishing media | not combustible Not required. |
| 5.2 | Extinguishing media to avoid | None. |
| 5.3 | Flash point | not applicable |
| 5.4 | Ignition temperature | not applicable |
| 5.5 | Explosion limits | Lower: Upper: not applicable |
| 5.6 | Further information | None. |
-

Test method:

6 Accidental release measures

Clean up mechanically.
Clean and reuse

7 Handling and storage

- | | | |
|-----|--------------------------------|-------------------------------------------------------------------------------------------------|
| 7.1 | Handling | Only adequately trained personnel should handle this product. Keep out of reach of children. |
| 7.2 | Industrial hygiene | Usual hygienic measures for dental practice. |
| 7.3 | Storage | No specific requirements. |
| 7.4 | Place of storage | |
| 7.5 | Fire- and explosion-protection | Not required. |
-

8 Exposure controls / Personal protection

- | | | |
|-------|-------------------------------|--------------------------------------------------------------------------------------------------|
| 8.1 | Technical measures | Provide adequate local ventilation. Control airborne concentration below the exposure guideline. |
| 8.2 | Control of threshold limits | Dust and vapors: MAK 0.5 mg/m ³ |
| 8.3 | Personal protective equipment | |
| 8.3.1 | Respiratory protection | In dusty atmospheres, use an approved dust respirator P2. |

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If metal fumes are present, use an approved high-efficiency particulate respirator (P3).

8.3.2 Hand protection

Gloves.

8.3.3 Eye protection

Safety goggles.

8.3.4 Other

Use only with adequate ventilation.

9 Physical and chemical properties

9.1 Appearance

solid

9.2 Colour

white

9.3 Odour

odourless

9.4 Change of physical state

Test method:

Melting range

Casting temperature

9.5 Density

8.4 g/cm³ (20°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 Further information

10 Stability and reactivity

10.1 Thermal decomposition

None, if used in accordance with instructions.

10.2 Hazardous decomposition products

None, if used in accordance with instructions.

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10.3 Hazardous reactions None, if used in accordance to instructions.

10.4 Further information None.

11 Toxicological information

11.1 Acute toxicity Skin sensitisation may develop from prolonged, repeated skin contact.
 Alloy: non-cytotoxic, non-mutagenic, non-irritant, non-sensitizer

11.2 Subacute / Chronic toxicity Fumes or dusts generated from cutting or grinding operations may cause respiratory irritation.

11.3 Further information Nickel: Inhalation of grinding dust and vapours can cause cancer.

12 Ecological information

No ecological problems to be anticipated if properly handled and used.
 nearly insoluble

13 Disposal considerations

Recycling

14 Transport information

14.1 Transport at land ADR --- RID ---

UN Number --- Kemler Number ---
 Packing Group ---
 Proper shipping name ---

14.2 Transport at sea ADN R --- IMDG ---

UN Number ---
 EMS --- MFAG ---
 Packing Group ---
 Proper shipping name ---

14.3 Air transport ICAO / IATA-DGR ---
 UN Number ---
 Proper shipping name ---

Subsidiary Risk ---
 Labels ---
 Packing Group ---
 Passenger airplane Packing Instructions ---

max. ---
 Cargo Airplane Packing Instructions ---
 max. ---

14.4 Further information Product is not classified as a dangerous good for transport.

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15 Regulatory information

The product is a medical device according to the EC-directive 93/42/EEC.

This product is classified as a medical device under US and Canadian regulations and has been reviewed by the US Food and Drug Administration and Health Canada.

This product does not require classification as Dangerous Goods.

15.1 National regulations

15.2 NFPA Storage

15.3 Further information None.

16 Other information

Version: 3
Changes: 1.5

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.

This safety data sheet has been generated with the safety database 'ChemManager',
© ASSiST Applied Software Solutions in Science and Technology AG, Weiherweg 3, CH-4104 Oberwil, Switzerland

91/155/EEC