EG-MATERIAL SAFETY DATA SHEET

according to 91/155 EEC
Date of issue: 26-Jan-12 replaced copy from: 30-Jun-02

Hinri-Alloy CoCr

1. Identification of the Substance / Preparation and Company:

Identification of the substance or preparation:

Commercial product name:	Hinri-Alloy CoCr
Company / Manufacturer:	ERNST HINRICHS GmbH Borsigstr. 1 D - 38644 Goslar 0 53 21 / 5 06 24 0 53 21 / 5 08 81 info@hinrichs-dental.de / www.hinrichs-dental.de

2. Composition / Information on Ingredients:

2.1 Alloys contain at least 60% of chrome and cobalt. Alloys also contain Molybdenum.

3. Hazards Identification:

Main dangers are following:	Reaction products with other elements (see N° 10) Exposure to smoke, gas, powder, skin contact (see N° 11) Combustion of powders in open air (see N° 5).

4. First aid measures:

4.1	After inhalation:	If large amount is inhaled or under an asthma attack, remove to fresh air and contact a doctor.
4.2	After contact with the skin:	Wash off contaminated areas with water or remove contaminated clothing and have a shower. Wash clothing before reuse. Avoid prolonged or repeated skin contact. Wash yourself completely after handling
4.3	After contact with the eyes:	Irrigate with water for at least 15 minutes.
4.4	After ingestion:	If a large amount is ingested induce vomiting only if the person is conscious and contact a doctor.

5. Fire Fighting measures:

Coherent forms of cobalt chrome alloys run no risk of fire or explosion. At the contrary, if the material is fine divided (powder) it can explode at open air

5.1	Suitable fire-extinguisher	Powders, water, Co_2, foam
5.2	Not suitable extinguishing device, not to be used for safety reasons	Not applicable
5.3	Possible risk of exposure derived by the product or by the burning of it, or by the gas produced	Intoxication (see N° 11).
5.4	Special protection equipment	Use of aqualung and fully protective garment

6. Accidental release measures:

6.1	Individual cautions:	Avoid powder formation
6.2	Environment cautions:	No special measure is necessary
6.3	Cleaning method:	No special measures

7. Handling and Storage:

7.1	Handling:	No special cautions are needed
7.2	Storage:	No special cautions are needed for a safety storage

8. Exposure controls / Personal protection:

8.1	Breathing protection	If solid cobalt chrome alloy forms are converted in manufacturing processes to particulates, maintain working environment below the recommended limits by use of appropriate ventilation; (Cr <0,050 mg/m^3, Co< 0,050 mg/m^3) if ventilation is not adequate, then respiratory protection should be used.
	Hand protection	Protective gloves
	Eyes protection	Safety goggles
	Skin protection	Appropriate protective clothing

9. Physical and chemical properties:

Aggregation status on delivery:	Solid
Colour on delivery:	White
Melting point range in atmospheric pressure:	>1200° C
PH of the alloy on delivery:	Not applicable
Flash point:	Not applicable
Flammability:	Not applicable
Self flammability:	Not applicable
Exploding properties:	Not applicable
Comburent properties:	Not applicable
Steam pressure in standard temperature:	Unknown
Absolute density in standard condition:	8,4 g/cm^3
Solubility:	Insoluble in water
Liposolubility:	Practically insoluble
Coefficient of allotment of octane rating/water:	Not applicable

10. Stability and Reactivity:

Condition to avoid	Not applicable
Materials to avoid	Perchlorate, nitrate, hydrazine, alkali, oxidizing, acid
Dangerous decomposition products	Release of hydrogen due to reaction with acids
Present or necessary stabilizers	Not applicable
Relevant changing in the aggregation status of the alloy	Not applicable
Dangerous products of decomposition due to water contact	Not applicable
Possibility of degradation and formation of unstable products	Not applicable

11. Toxicological Information:

Under normal handling and use, exposure to massive forms of cobalt chrome alloys presents few health hazards. If however, massive forms are converted to particulates then both acute and chronic health hazards are possible.

After inhalation	Rare cases of asthma have been reported to have occured in individuals exposed to some forms of particulates. Effects on respiratory tract and gastrointestinal disorder may occur
After skin contact	Exposure to cobalt chrome alloys may cause dermatitis or other allergic reactions in sensitive individuals.
After eyes contact	Irritation due to mechanical irritation.
After ingestion	Cobalt chrome alloys are scarcely absorbed by the intestine, acute dose; however, may cause abdominal pains, vomit, anuria, and uraemia. If the material is absorbed for long period, kidney harm may occur.

12. Ecological Information:

12.1	Mutability	Not applicable
12.2	Persistence and deterioration	Unknown
12.3	Bioaccumulation power	Unknown
12.4	Aquatic toxicity	Unknown

13. Disposal Considerations:

13.1 Recycling the alloys has no risk, consult specialised recycling society and follow your local ecological regulations.

14. Transport Information:

According to the laws, dental alloys are not considered as dangerous goods.

15. Regulatory Information:

Dental alloys are not considered as dangerous goods.

16. Further Information:

We think that these information are careful; furthermore, they are all what we know about it. We do not grant, explicitly or implicitly, that they are true; we do not undertake any responsibility for the use of them. We advice the purchaser to consult other sources.