

Safety Data Sheet

According to 91/155 EWG (2001/58/EG)

1. Identification of substance and company

Trade name: System NE, System Soft,
System Duro, System MD,
System MG, System 1, System 2, System 3, System H
Product details: Cobalt alloy, Dental Continuous casting
Product form: Rod, slug
Manufacturer: Adentatec GmbH
Street: Ringstraße 38-44
ZIP/city/Country.: 50996 Koeln/ GERMANY
Phone: +49 221 – 35 96 100
Fax: +49 221 – 35 96 170
Information department: +49 221 – 35 96 100
Emergency information: +49 221 – 35 96 100
Email: info@adentatec.com
Homepage: www.adentatec.com

2. Composition/Data on components

Chemical characterization: Co-Cr-Mo-Alloy
Dangerous components:
CAS: 7439-98-7 Molybdenum Mo 0,7 – 7 %
EINECS: 231-107-2
CAS: 7440-33-7 Tungsten W 1 – 11 %
EINECS: 231-143-9
CAS: 7440-48-4 Cobalt Co Rest (50 – 70 %)
EINECS: 231-158-0

The information as to risk and precautions given in the chapters 4 to 8, 10 to 12 do not apply o the product itself, but only o dust and vapours generated on working with it.

3. Hazards identification

Hazard designation: void
Information pertaining to particular dangers for man and environment: void
Classification system: The classification is in line with the current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

4. First aid measures

General information: No special measures required
After inhaling: Fresh air. In case of disorders, please contact a doctor.
After swallowing: In case of continuois disorders, a doctor should be consulted

5. Fire fighting measures

General information: Adapt fire extinguishing methods to site
Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: Product does not burn
Protective equipment: No special measures required.

6. Accidental release measures

Person-related safety precautions: In case of release dust/Aerosol only work with a protection mask.
Measures for environmental protection: Remains/Dental scrap should be disposed environmentally friendly. Swarf is not allowed to enter drainage system, surface or ground water
Measures for cleaning/collecting: -

Reviewed from Manufacturer:
30.08.2007 / jg

Safety Data Sheet

According to 91/155 EWG (2001/58/EG)

7. Handling and storage

Handling:	Arrange good ventilation/exhaustion at workplace.
Information for safe handling:	Prevent formation of dust
Information about protection against explosions and fires:	No special measures required
Storage and container:	Only store in original package. The delivery units need to be protected against sliding, overturning, rolling and falling.
Information about storage in one common storage facility:	Not required
Further information about storage conditions:	None

8. Exposure controls and personal protection

Additional information about design of technical systems:	No further data, see item 7
Components with critical values that require monitoring at the workplace:	Particulate matter MAK 6 mg/m ³ 1317-35-7 Manganese oxide MAK 1 mg/m ³ 7440-48-4 Cobalt (2, 3,25; TRGS 901-12) MAK 0,1 E mg/m ³
Additional information:	The lists that were valid during the compilation were used as basis
Personal protective equipment:	
General protective and hygienic measures:	Do not inhale dust, fume, haze
Breathing equipment:	Filter device – Filter FFP2
Protection for hands:	Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Material of gloves:	The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer
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

9. Physical and chemical properties

Form:	cylinder, rope
Colour – product specification:	Metallic bright
Smell:	odourless
Change in condition:	
Melting point/Melting range (Solidus/Liquidus):	1.320 – 1.420 °C
Boiling point/Boiling range:	Not applicable
Flash point:	Not applicable
Ignition point:	
Corrosion temperature:	2000 °C
Density at 20°C:	8,3 g/cm ³
Danger of explosion:	Product is not explosive
Solubility in / Miscibility with water:	
Water:	insoluble

10. Stability and reactivity

Conditions to avoid:	No decomposition if used and stored according to specifications
Dangerous reactions:	No dangerous reactions known
Dangerous products of composition:	None

Reviewed from Manufacturer:
30.08.2007 / jg

Safety Data Sheet

According to 91/155 EWG (2001/58/EG)

11. Toxicological information

Acute toxicity:	Results of animal experiments are not known
Toxicological tests:	LD ₅₀ /LC ₅₀ values are not known
Primary irritant effect	
- on the skin:	No irritant effect
- on the eye:	No irritant effect
Sensitization:	No sensitization effect known
Additional toxicological information:	The product is not subject to classification according to the calculation method of the General ED Classification Guidelines for Preparations as issued in the latest version. Dust is occurring while grinding. The composition of the dust depends on the chemical analysis of the alloy. Essential oxide is released from silicon, molybdenum, tungsten, cobalt. Manganese compound can also occur. Do not inhale grinding dust.

12. Ecological information

General notes: No water hazards known

13. Disposal considerations

Recommendation:	Contact waste material market (alloy) regarding recycling
European waste catalogue:	06 03 15 metallic oxides containing heavy metals (Waste which occurs while grinding)
Uncleaned packagings:	
Recommendation:	Packagings that cannot be cleaned are to be disposed off in the same manner as the product

14. Transport information

Land transport ADR/RID und GGVS/GGVE (cross-border/domestic):	-
Maritime transport IMDG/GGV sea:	-
Air transport ICAO-TI und IATA-DGR:	-
Transport/ other information:	Not classified as dangerous in the meaning of transport regulations

15. Regulatory information

Designation according to EC guidelines:	Observe the normal safety regulations when handling with chemicals. The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).
National regulations:	
General Classification Guideline for Preparations of the EC (BetrSichV):	-

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 R-phrases	<u>This/These phrase(s) apply(ies) to one of the substance of content(s) and do not necessarily mention the classification of the preparation!</u> R 42/43 (Cobalt) May cause sensitisation by inhalation and skin contact R 53 (Cobalt) May cause long-term adverse effects in the aquatic environment S 22 Do not inhale dust (Cobalt) S 24 Do avoid contact with skin (Cobalt) S 37 Appropriate protection gloves should be worn (Cobalt)
Trade name:	System NE, System Soft, System Duro, System MD, System MG, System 1, System 2, System 3, System H
Contact:	Adentatec GmbH

Reviewed from Manufacturer:
30.08.2007 / jg