according to Regulation (EC) No 1907/2006

Electrolytic polishing solution A for CoCr

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

1.1. Product identifier

Electrolytic polishing solution A for CoCr

Further trade names

Article No.: 128-301-00, 128-401-00

REACH registration number: 01-2119456816-28-xxxx

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Health services.

1.3. Details of the supplier of the safety data sheet

Company name: DENTAURUM GmbH & Co. KG

Street: Turnstr. 31

Place: D-75228 Ispringen

Telephone: +49 7231 803 0 Telefax: +49 7231 803 295

e-mail: info@dentaurum.de Internet: www.dentaurum.com

Further Information

Emergency telephone:

07:00 - 16:15 (Mo - Do), 07:00 - 13:15 (Fr) +49 7231 803 184 16:15 - 18:00 (Mo - Do), 13:15 - 18:00 (Fr) +49 7231 803 0

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements: Harmful if swallowed. Causes skin irritation.

Causes serious eye irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

ethanediol; ethylene glycol

Signal word: Warning

Pictograms:



Hazard statements

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

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Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses. if

present and easy to do. Continue rinsing.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

ethanediol; ethylene glycol. sulphuric acid > 10 %

Hazardous components

CAS No	Chemical name				
	EC No	Index No	REACH No		
	GHS Classification	•	•		
107-21-1	ethanediol; ethylene glycol				
	203-473-3	603-027-00-1			
	Acute Tox. 4; H302	•			
7664-93-9	sulphuric acid %				
	231-639-5	016-020-00-8			
	Skin Corr. 1A; H314				

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated, saturated clothing immediately.

After inhalation

Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Water and soap.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Medical treatment necessary. Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. Extinguishing powder. Carbon dioxide (CO2). Water spray.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Do not breathe vapour.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe vapour.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Store in a cool dry place.

Unsuitable materials for Container: Zinc. Do not store together with: Oxidizing agents.

Hints on joint storage

No special measures are necessary.

7.3. Specific end use(s)

Health services.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	WEL
		40	104		STEL (15 min)	WEL
7664-93-9	Sulphuric acid (mist)	-	0.05		TWA (8 h)	WEL

8.2. Exposure controls





Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe vapour. Avoid contact with eyes and skin.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Keep away from food, drink and animal feedingstuffs.

Eye/face protection

Suitable eye protection: goggles.

Hand protection

Recommendation:

Dermatril (740) Single-use gloves. NBR (Nitrile rubber). 0,11 mm penetration time (maximum wearing period): 480 min.

REF 162-907-00 (7/S), REF 162-908-00 (8/M), REF 162-909-00 (9/L)

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: colourless
Odour: characteristic

pH-Value (at 20 °C): 0,5

Changes in the physical state

Melting point:

Initial boiling point and boiling range:

190 °C

Flash point:

> 120 °C

> 120 °C

Flammability

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Solid:	not applicable	
Gas:	not applicable	
Lower explosion limits:	3 vol. %	
Upper explosion limits:	not determined	
Auto-ignition temperature Solid: Gas:	not applicable not applicable	
Decomposition temperature:	not determined	
Oxidizing properties Not oxidising.		
Vapour pressure: (at 20 °C)	> 0,1 hPa	
Density (at 20 °C):	1,2 g/cm³	
Water solubility:	miscible.	
Solubility in other solvents not determined		
Partition coefficient:	not determined	
Vapour density:	not determined	
Evaporation rate:	not determined	
9.2. Other information		
Solid content:	not determined	

SECTION 10: Stability and reactivity

10.1. Reactivity

Possibility of hazardous reactions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Base, Peroxides, Oxidising agent. Reacts with: Oxidizing agents. Alkaline earth metals. Alkalis (alkalis). Alkali metals.

10.4. Conditions to avoid

none

10.5. Incompatible materials

Keep away from: Base, Oxidising agent, Peroxides.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed.

ATEmix calculated

ATE (oral) 582,4 mg/kg

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CAS No	Chemical name						
	Exposure route	Dose		Species	Source	Method	
107-21-1	ethanediol; ethylene glycol						
		ATE :	500				
	dermal	LD50 mg/kg	10600	Rabbit	GESTIS		

Irritation and corrosivity

Irritating to eyes and skin.

The product is skin resorptive.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

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

The product is not: Ecotoxic.

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
107-21-1	ethanediol; ethylene glycol	-1,36

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Avoid release to the environment. Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

List of Wastes Code - used product

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WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); pickling acids; hazardous waste

Contaminated packaging

Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3265

14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8



Classification code: C3
Special Provisions: 274
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3
Hazard No: 80
Tunnel restriction code: E

Marine transport (IMDG)

14.1. UN number: UN 3265

14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8



Special Provisions: 223, 274
Limited quantity: 5 L
Excepted quantity: E1
EmS: F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3265

<u>14.2. UN proper shipping name:</u> CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8



Special Provisions: A3 A803

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Limited quantity Passenger: 1 L
Passenger LQ: Y841
Excepted quantity: E1

IATA-packing instructions - Passenger: 852
IATA-max. quantity - Passenger: 5 L
IATA-packing instructions - Cargo: 856
IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Warning: strongly corrosive.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

2004/42/EC (VOC): 85,85 % (1030,2 g/l)

Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile

work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or

nursing mothers.

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport 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 Harmonized 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 LC50: Lethal concentration, 50% LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.
H319 Causes serious eye irritation.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our

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present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)