

SAFETY DATA SHEET (91/155/EWG)**DeguDent**

A Dentsply International Company

Solaris Silver Conductive Lacquer

Material no.		Version	3.0 / GB
Specification	147306	Release Date	06.12.2006
VA-Nr		Print Date	19.06.2009
		Page	1 / 8

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product information**

Trade name : Solaris Silver Conductive Lacquer

Company : DeguDent GmbH
Postfach 1364
D-63403 Hanau

Telephone : +49 (0)6181/59-5767
Telefax : +49 (0)6181/59-5879

Emergency telephone number : +49 (0)180 / 23 24-555

Use of the Substance / Preparation : For dental use only.

2. COMPOSITION/INFORMATION ON INGREDIENTS**Information on ingredients / Hazardous components**

● silver		30% - 70%	
CAS-No.	7440-22-4	EC-No.	231-131-3
● 1-Ethoxy-2-propanol		20% - 60%	
CAS-No.	1569-02-4	EC-No.	216-374-5
	R10		
	R67		
● acetone		< 10%	
CAS-No.	67-64-1	EC-No.	200-662-2
	F; R11		
	Xi; R36		
	R66		
	R67		
● Ethylacetate		< 10%	
CAS-No.	141-78-6	EC-No.	205-500-4
	F; R11		
	Xi; R36		
	R66		
	R67		

See chapter 16 for text of risk phrases

3. HAZARDS IDENTIFICATION

Highly flammable.
Repeated exposure may cause skin dryness or cracking.
Vapours may cause drowsiness and dizziness.

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Specification	147306	Release Date	06.12.2006
VA-Nr		Print Date	19.06.2009
		Page	2 / 8

4. FIRST AID MEASURES**General advice**

Take off all contaminated clothing immediately.

Inhalation

Take affected persons out into the fresh air.
Consult a physician.

Skin contact

Wash off immediately with soap and plenty of water.
Obtain medical attention.

Eye contact

With eye held open, thoroughly rinse immediately with plenty of water for at least 10 minutes.
See an eye specialist immediately.

Ingestion

Do not induce vomiting.
Have patient drink plenty of water in small sips.
Call a physician immediately.
Ingest activated charcoal.

Notes to physician

after absorbing large amounts of substance:
gastric lavage.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Water spray, foam, CO₂, dry powder.

Extinguishing media which must not be used for safety reasons

high volume water jet

Specific hazards during fire fighting

Heavier than air vapour.
Forms explosive mixtures with air.

Special protective equipment for fire-fighters

In case of fire: wear a self contained respiratory apparatus
Wear suitable protective clothing.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Keep away from sources of ignition - No smoking.
Avoid contact with skin and eyes.
Do not inhale vapours / aerosols.
Ensure adequate ventilation.

Environmental precautions

Avoid penetration into drainage system or in rooms situated at a lower level because of danger of explosion.
Do not allow to run into water channels, surface water, or into the ground.

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VA-Nr		Print Date	19.06.2009
		Page	3 / 8

Methods for cleaning up

Take up mechanically or with an absorbent material.

Fill into marked, sealable containers.

To be disposed of in compliance with existing regulations.

Suitable binder: universal absorbent, absorbent for liquids

7. HANDLING AND STORAGE**Handling****Safe handling advice**

Provide good ventilation or extraction.

Avoid contact with skin and eyes.

Advice on protection against fire and explosion

Take precautionary measures against static charges, keep away from sources of ignition.

Do not smoke.

Storage**Requirements for storage areas and containers**

Keep containers tightly closed in a cool, well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Components with workplace control parameters**● **silver**

CAS-No.	7440-22-4	EC-No.	231-131-3
Control parameters	0.1 mg/m ³		Time Weighted Average (TWA):(EU ELV)
Control parameters	4 mg/m ³		Time Weighted Average (TWA):(EH40 (UK))
type of exposition	Respirable dust.		
Control parameters	10 mg/m ³		Time Weighted Average (TWA):(EH40 (UK))
type of exposition	Total inhalable dust.		
Control parameters	0.1 mg/m ³		Time Weighted Average (TWA):(EH40 WEL)

● **acetone**

CAS-No.	67-64-1	EC-No.	200-662-2
Control parameters	500 ppm		Time Weighted Average (TWA):(EU ELV)
	1210 mg/m ³		
Control parameters	500 ppm		Time Weighted Average (TWA):(EH40 WEL)
	1210 mg/m ³		
Control parameters	1500 ppm		Short Term Exposure Limit (STEL):(EH40 WEL)
	3620 mg/m ³		

● **Ethylacetate**

CAS-No.	141-78-6	EC-No.	205-500-4
Control parameters	200 ppm		Time Weighted Average (TWA):(EH40 WEL)
Control parameters	400 ppm		Short Term Exposure Limit (STEL):(EH40 WEL)

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Specification	147306	Release Date	06.12.2006
VA-Nr		Print Date	19.06.2009
		Page	4 / 8

Engineering measures

Ensure that there is suitable air extraction / ventilation in the workplace or at the working machines. If necessary extractor suction on specific objects.

Personal protective equipment**Respiratory protection**

In case of dusts/vapours/aerosols being formed or if the limit values like TLV are exceeded: use respiratory equipment with suitable filter (gas filter, filter type A) or wear a self contained respiratory apparatus

Hand protection

Wear protective gloves made of the following materials: solvent-resistant material.

Glove material PVC

The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

preventive skin protection

Use barrier cream regularly.

Eye protection

Safety glasses with side-shields

Skin and body protection

suitable protective clothing

Hygiene measures

No eating, drinking, smoking, or snuffing tobacco at work. Wash face and/or hands before break and end of work.

Keep away from food, drink and animal feedingstuffs.

Take off all contaminated clothing immediately.

Wash contaminated clothing before re-use.

Keep working clothes separately.

Do not inhale vapours / aerosols.

Avoid contact with skin, eyes, and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	liquid
Colour	silver
Odour	acetone

Safety data

Melting point/range	not determined
Boiling point/range	56 °C
Flash point	12 °C
Flammability	not spontaneously flammable
Ignition temperature	255 °C

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VA-Nr		Print Date	19.06.2009
		Page	5 / 8

Explosiveness	Vapours can form explosive mixtures with air.		
Lower explosion limit	1.3 %(V)		
	related to substance:	2-ethoxyethanol	
Upper explosion limit	19 %(V)		
Density	5.7 g/cm ³		
Water solubility	partly soluble		

10. STABILITY AND REACTIVITY

Conditions to avoid	Keep away from direct sunlight. Keep away from heat.
Materials to avoid	No decomposition if stored and applied as directed.
Hazardous decomposition products	No hazardous decomposition products known.
Hazardous reactions	Formation of explosive gas mixtures with air.

11. TOXICOLOGICAL INFORMATION

Skin irritation	Frequent and continual skin contact can cause skin reaction (Has a degreasing effect on the skin. skin irritation possible).
Eye irritation	possibly irritating
Sensitization	None known

12. ECOLOGICAL INFORMATION**Elimination information (persistence and degradability)****Behaviour in environmental compartments****Ecotoxicity effects**

Ecotoxicological tests with this preparation are not available.

Further information on ecology

Further Information	Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems.
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13. DISPOSAL CONSIDERATIONS**Product**

Disposal according to local authority regulations.

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Specification	147306	Release Date	06.12.2006
VA-Nr		Print Date	19.06.2009
		Page	6 / 8

Uncleaned packaging

Disposal according to local authority regulations.

14. TRANSPORT INFORMATION**Land transport ADR/RID/GGVSE (Germany)**

Class	3
ADR/RID-Labels	3
UN-No	1993
Packaging group	II
orange warning plate	33 / 1993
Description of the goods (Technical name)	
FLAMMABLE LIQUID, N.O.S.	
(acetone, 1-Ethoxy-2-propanol)	

Sea transport IMDG-Code/GGVSee

Class	3
UN-No	1993
Packaging group	II
EmS	F-E, S-E
Proper technical name (Proper shipping name)	
FLAMMABLE LIQUID, N.O.S.	
(acetone, 1-Ethoxy-2-propanol)	

Air transport ICAO-TI/IATA-DGR

Class	3
UN-No	1993
Packaging group	II
Proper technical name (Proper shipping name)	
Flammable liquid, n.o.s.	
(acetone, 1-Ethoxy-2-propanol)	

Inland waterway transport ADN/ADNR/GGVBinSch (Germany)

Class	3
ADR/RID-Labels	3
UN-No / Substance number	1993
Packaging group	II
Description of the goods (Technical name)	
FLAMMABLE LIQUID, N.O.S.	
(acetone, 1-Ethoxy-2-propanol)	

Loading instructions/Remarks

IATA_C	ERG-Code 3H
IATA_P	ERG-Code 3H
ADR	Observe listed materials regulation §7, paragraph 1 GGVSE
ADR	Special provision 640D
RID	Special provision 640D
ADNR	Special provision 640D
IATA_C	USA: Observe RQ
IATA_P	USA: Observe RQ
IMDG	USA: Observe RQ

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Specification	147306	Release Date	06.12.2006
VA-Nr		Print Date	19.06.2009
		Page	7 / 8

15. REGULATORY INFORMATION**Labelling according to EC Directives****hazard-defining component(s)**

- 1-Ethoxy-2-propanol
- acetone
- Ethylacetate

Symbol(s)	F	Highly flammable
R-phrase(s)	R11 R66	Highly flammable. Repeated exposure may cause skin dryness or cracking.
S-phrase(s)	S 7/9 S16 S26 S33 S45	Keep container tightly closed and in a well-ventilated place. Keep away from sources of ignition - No smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take precautionary measures against static discharges. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

National legislation

employment restriction	The employment limitations under the protection of young persons act, the laws on pregnant women and young mothers and work at home is/are to be observed.
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16. OTHER INFORMATION**Risk phrase (R phrase) texts**

- **1-Ethoxy-2-propanol**

R10	Flammable.
R67	Vapours may cause drowsiness and dizziness.

- **acetone**

R11	Highly flammable.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

- **Ethylacetate**

R11	Highly flammable.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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		Page	8 / 8

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