


Material Safety Data Sheet

Acc. to 91/155/EEC adjustment acc. to Directive 2001/58/EC
Hoffmann Dental Manufaktur GmbH

Reviewed on: 16 December 2009

1. Identification of substance and manufacturer's name			
Product details/Trade name:			
			
HOFFMANN'S COPAL VARNISH, Liquid			
Manufacturer/Supplier: Wangenheimstr. 37/39, D-14193 Berlin Telephone: ++49 (0) 30 / 85 10 27 3 Fax: ++49 (0) 30 / 82 70 45 40			
Information department/Emergency information: Quality assurance department, telephone: ++49 (0) 30 / 85 10 27 52 e-mail: sicherheit@hoffmann-dental.com			
2. Composition/Data on ingredients			
Chemical characterization: Description: Mixture of below-mentioned substances with innocuous additions.			
Hazardous ingredients:			
CAS: 64-17-5 EINECS: 200-578-6	Ethanol	F; R 11	50 - 80 %
3. Hazards identification			
Hazard designation: F Highly flammable			
Special danger warning for human and environment: The product has to be labelled due to the calculation procedure of the „EU-Directive of the General Classification of Preparations“ in the latest valid version. R 11: Highly flammable			
Classification system: The classification is in compliance with the current EU-lists, but is also completed with details given by technical literature and company.			
4. First aid measures			
General warnings:	Remove contaminated clothes immediately.		
- After inhaling:	Fresh air; in case you feel unwell, consult a physician.		
- After skin contact:	Wash with plenty of water; remove contaminated clothes.		
- After eye contact:	Flush opened eye under running water for several minutes.		
- After swallowing:	Get prompt medical attention.		
5. Fire fighting measures			
Suitable extinguishing agents:	CO ₂ , foam, sand, powder. Do not use water.		
Special protective equipment:	Staying in dangerous area only with a self-contained breathing apparatus.		
Other information:	Flammable. Vapors are heavier than air. Explosive mixtures with air are already possible at normal temperatures. Containers must be cooled down with sprayed water from a safe distance. Prevent any spillage of water for fire-fighting from entering surface or ground waters. No special measures are required.		
6. Accidental release measures			
Person-related safety			

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precautions:	Do not inhale vapors/aerosols. Provide fresh air in closed areas.																
Environmental precautions:	Prevent any spillage from entering the sewage system, the surface water and the ground water.																
Methods of cleaning up:	Absorb with liquid binding material (chemical binders, use for small amounts cellulose) and dispose of.																
7. Handling and storage																	
Handling: The product is only for dental use.																	
- Information about safe handling:	Keep containers tightly closed.																
- Information about protection against explosion and fire:	No special measures are required.																
Storage:																	
- Information about storage:	Store tightly closed and dry in original containers.																
- Information about storage in one common storage facility:	The product is highly flammable, therefore do not store together with fire supporting materials.																
- Requirements for storage rooms:	Store tightly closed away from flammable and heat sources at a good ventilated place.																
8. Exposure controls and personal protection																	
Data on limiting values that require monitoring at the workplace:																	
<table border="1"><thead><tr><th colspan="2">Ingredients with limiting values that require monitoring at the workplace</th></tr></thead><tbody><tr><td>CAS 64-17-5 ethanol</td><td>(EU-No.: 200-578-6)</td></tr><tr><td>TLV</td><td>960 mg/m³ 500 ml/m³ Y; DFG</td></tr></tbody></table>		Ingredients with limiting values that require monitoring at the workplace		CAS 64-17-5 ethanol	(EU-No.: 200-578-6)	TLV	960 mg/m ³ 500 ml/m ³ Y; DFG										
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TLV	960 mg/m ³ 500 ml/m ³ Y; DFG																
Technical protective measures: not required.																	
Personal protective equipment:																	
Respiratory protection: Use a respirator in case of exceeding of TLV-values.																	
Skin protection: Wear suitable protective gloves. The glove material has to be impermeable and resistant to the product/the substance/the preparation. Due to absent tests no recommendations about the glove material can be given for the product/the preparation/the chemical mixture. The selection of the glove material should be in consideration of the breakthrough time, kinds of permeation and the degradation.																	
Material of gloves: The selection of the suitable gloves does not only depend on material but also on further quality characteristics and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has to be checked prior to the application. Suitable glove material is e. g. butyl rubber, fluorocarbon rubber (Viton), natural rubber (Latex). For the permanent contact of a maximum of 15 minutes gloves made of PVC or PE are suitable.																	
Penetration time of glove material: The exact breakthrough time is to be obtained from the manufacturer of the protective gloves and has to be observed.																	
Eye protection: Wear protective goggles with side protection.																	
Body protection: Lightweight protective clothes.																	
General protective and hygienic measures: The usual precautionary measures for contact with chemicals are to observe.																	
9. Physical and chemical properties																	
<table border="1"><thead><tr><th colspan="2">General information:</th></tr></thead><tbody><tr><td>Form:</td><td>liquid</td></tr><tr><td>Colour:</td><td>clear, yellow</td></tr><tr><td>Odour:</td><td>alcoholic</td></tr><tr><td>Change in state</td><td></td></tr><tr><td>Boiling point/boiling range:</td><td>78 °C (pure ethanol)</td></tr><tr><td>Danger of explosion:</td><td>3,5 – 15 Vol %</td></tr><tr><td>Vapor pressure:</td><td>approximately 59 hPa</td></tr></tbody></table>		General information:		Form:	liquid	Colour:	clear, yellow	Odour:	alcoholic	Change in state		Boiling point/boiling range:	78 °C (pure ethanol)	Danger of explosion:	3,5 – 15 Vol %	Vapor pressure:	approximately 59 hPa
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Flashpoint:	13° C (pure ethanol)
pH-value (10 g/l H₂O):	7
Autoflammability:	The product does not self ignite
Density (at 20 °C):	0,93 g/cm ³
Solubility in water:	slight
Solvent content:	
Organic solvents:	73 %
Water:	0,0 %
VOC EU:	73 %
Solid content:	27 %





10. Stability and reactivity	
Conditions to be avoided:	Heating. No decomposition when used according to regulations.
Hazardous reactions:	Explosible with air in gaseous/vaporous state. Avoid strong oxidizing agents. as e.g. hydrogen peroxide, acids or alkali metals. Unsuitable materials: various plastics, rubber.
Hazardous decomposition products:	No hazardous decomposition products are known.

11. Toxicological information	
Values given below refer to the basic substance Ethanol.	
Acute toxicity: In our experience the product does not cause any noxious effects when used and handled according to regulations.	
LC 50 (relating to inhalation, rat)	> 8.000 mg/l/4 h
LD50 (dermal, rabbit):	> 20.000 mg/kg
LC50 (oral, rat)	6.200 mg/ kg
Specific symptoms in animal experiments:	
Test for irritation to eye (rabbit):	Slight irritation
Test for irritation to skin (rabbit):	Slight irritation
Subacute to chronic toxicity:	
Test for sensitisation (Magnusson Kligman):	No sensitising effect
Mutagenicity Test:	
Ames-Test:	Negative; no mutagenic effect.
Further toxicological information:	
- Inhaling:	Vapors in high concentration cause irritation to respiratory tract; danger of resorption.
- Skin:	After long-term effect of the chemical: Dermatitis (ethanol)
- Eye:	Slight irritation.
- Swallowing:	Nausea and vomiting.
- Systemic effect:	Euphoria
- After resorption of a large amount of substance:	Dizziness, intoxication, anaesthesia, respiratory paralysis.

12. Ecological information	
Referring to main substance:	
Biological decomposition:	Not determined.
Ecotoxicological information:	Quantitative data about ecological effects are not available for this product.
Biological effects:	Not determined.
General information:	Slight hazardous to waters. Prevent any spillage of larger amounts from entering groundwater, waters or sewage system.

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13.	Disposal details				
	<p>Product: Do not dispose of together with domestic waste. Prevent releasing into sewage system.</p> <p>Uncleaned packaging: Dispose of in accordance with official regulations.</p> <table border="1"><tr><td colspan="2">European Waste Catalogue</td></tr><tr><td>18 01 06</td><td>Chemicals containing or consisting of hazardous substances</td></tr></table>	European Waste Catalogue		18 01 06	Chemicals containing or consisting of hazardous substances
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14. Transport information					
<p>Land transport ADR/RID and GGVS/GGVE (cross-border/national):</p> <div style="text-align: center;"></div> <p>ADR/RID-GGVS/E class: 3 (F1) flammable liquid Kemler-Number : 33 UN-Number: 1170 Packaging group: II Hazard label: 3 Proper shipping name: 1170 ETHANOL (ETHYL ALCOHOL), LIQUID</p> <hr/> <p>Maritime transport IMDG/GGV sea:</p> <div style="text-align: center;"></div> <p>IMDG/GGVsea class: 3 UN-Number: 1170 Label: 3 Packaging group: II EMS-Number: F-E, S-D MARINE POLLUTANT: NO Proper shipping name: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)</p> <hr/> <p>Air transport ICAO-TI and IATA-DGR:</p> <div style="text-align: center;"></div> <p>ICAO / IATA class: 3 UN/ID number: 1170 Label: 3 Packaging group: II Proper shipping name: ETHANOL SOLUTION</p>					
15. Regulations					
<p>Labelling according to EU-Directive: The product has been classified and labelled in accordance with EU-Directives / Ordinance on Hazardous Materials</p>					

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(GefStoffV).

Labels:



F Highly flammable

Risk phrases: 11

Safety phrases: 7-16 Keep container tightly closed and away from ignition sources. Do not smoke.

National regulations:

Water hazard class: 1 (slight hazardous to waters), self-assessment.

16. Other information

This information is based on our present knowledge. However, they do not represent a guarantee for any product features and do not establish a contractual relationship.

Department issuing MSDS: Quality assurance department