

Product name:	PROTECTING LAQUER	Page:	1/12
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Document No.:	M0033	SDS-ID:	US-EN/13.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name: PROTECTING LAQUER
Cat. No. 49900012

Container size: 400 ml

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

Application: For protection of materialographic preparation

Details of the supplier of the safety data sheet

Supplier: Struers A/S
Pederstrupvej 84
DK-2750 Ballerup
Tel:+45 44 600 800

Responsible for material safety data sheet authoring: Responsible for material safety data sheet authoring: DHI
Any questions to the contents of this material safety data sheet should be sent to:
Lisbeth.Mygind@struers.dk

Emergency telephone number

Emergency telephone: Infotrac:
1-800-535-5053
Struers US:
1-440-871-0071

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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

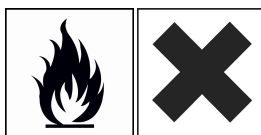
The product is classified: F+;R12 Xi;R36 R66 R67 R52/53

Physical and Chemical Hazards: The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures.

Human health: Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapors may cause drowsiness and dizziness.

Environment: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains a substance which has a photochemical ozone creation potential.

Label elements



Extremely
flammable

Irritant

R12 Extremely flammable.
R36 Irritating to eyes.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapors may cause drowsiness and dizziness.
S23 Do not breathe vapor/spray.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S35 This material and its container must be disposed of in a safe way.
S36/37 Wear suitable protective clothing and gloves.
S51 Use only in well-ventilated areas.
S61 Avoid release to the environment. Refer to special instructions/safety data sheets.
Pressurized container: Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children.

NFPA Rating: Health:2 Fire:4 Reactivity:0 Other:-

Other hazards

PBT/vPvB: Not relevant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

The product contains: organic solvent, binders and propellants.

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67/548/EEC:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH Reg. No:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
25-50	67-64-1	200-662-2	-	Acetone	F;R11 Xi;R36 R66 R67	
10-25	106-97-8	203-448-7	-	Butane	F+;R12	C
10-25	74-98-6	200-827-9	-	Propane	F+;R12	
5-<10	1330-20-7	215-535-7	-	Xylene	R10 Xn;R20/21 Xi;R38	C
5-10	108-65-6	203-603-9	-	2-Methoxy-1-methylethyl acetate	R10	
2,5-<5	64742-95-6	265-199-0	-	Solvent naphtha (petroleum), light arom.	R10 Xn;R65 Xi;R37 R66 R67 N;R51-53	H; P
<2,5	100-41-4	202-849-4	-	Ethylbenzene	F;R11 Xn;R20	
<2,5	95-63-6	202-436-9	-	1,2,4-Trimethylbenzene	R10 Xn;R20 Xi;R36/37/38 N;R51-53	
<1	108-67-8	203-604-4	-	1,3,5-Trimethylbenzene	R10 Xi;R37 N;R51-53	
<0,5	98-82-8	202-704-5	-	Cumene	R10 Xn;R65 Xi;R37 N;R51 -53	C
<0,5	103-65-1	203-132-9	-	Propylbenzene	R10 Xn;R65 Xi;R37 N;R51 -53	C

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GHS:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH Reg. No:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
25-50	67-64-1	200-662-2	-	Acetone	Flam. Liq. 2;H225 Eye Irrit. 2;H319 STOT SE 3;H336 EUH066	
10-25	106-97-8	203-448-7	-	Butane	Flam. Gas 1;H220 Press. Gas	C; U
10-25	74-98-6	200-827-9	-	Propane	Flam. Gas 1;H220 Press. Gas	U
5-<10	1330-20-7	215-535-7	-	Xylene	Flam. Liq. 3;H226 Acute Tox. 4;H332 Acute Tox. 4;H312 Skin Irrit. 2;H315	C
5-10	108-65-6	203-603-9	-	2-Methoxy-1-methylethyl acetate	Flam. Liq. 3;H226	
2,5-<5	64742-95-6	265-199-0	-	Solvent naphtha (petroleum), light arom.	Flam. Liq. 3;H226 Asp. Tox. 1;H304 STOT SE 3;H335/336 Aquatic Chronic 2;H411 EUH066	
<2,5	100-41-4	202-849-4	-	Ethylbenzene	Flam. Liq. 2;H225 Acute Tox. 4;H332	
<2,5	95-63-6	202-436-9	-	1,2,4-Trimethylbenzene	Flam. Liq. 3;H226 Acute Tox. 4;H332 Eye Irrit. 2;H319 STOT SE 3;H335 Skin Irrit. 2;H315 Aquatic Chronic 2;H411	
<1	108-67-8	203-604-4	-	1,3,5-Trimethylbenzene	Flam. Liq. 3;H226 STOT SE 3;H335 Aquatic Chronic 2;H411	
<0,5	98-82-8	202-704-5	-	Cumene	Flam. Liq. 3;H226 Asp. Tox. 1;H304 STOT SE 3;H335 Aquatic Chronic 2;H411	C
<0,5	103-65-1	203-132-9	-	Propylbenzene	Flam. Liq. 3;H226 Asp. Tox. 1;H304 STOT SE 3;H335 Aquatic Chronic 2;H411	C

References: The full text for all R-phrases and hazard statements are displayed in section 16.

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SECTION 4: FIRST AID MEASURES

Description of first aid measures

Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

Inhalation: Move into fresh air and keep at rest.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water.

Eye contact: Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions. Do not induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms/effects: See section 11 for more detailed information on health effects and symptoms.

Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Not known.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media: Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Special hazards arising from the substance or mixture

Specific hazards: The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Aerosol containers can explode when heated, due to excessive pressure build-up.

Advice for firefighters

Protective equipment for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Do not smoke or use open fire, or other sources of ignition. Avoid inhalation of vapors and aerosols and contact with skin and eyes.

Environmental precautions

Environmental precautions: Avoid discharge into water courses or onto the ground.

Methods and material for containment and cleaning up

Spill Cleanup Methods: Large quantities should not be discharged into the drain but removed with absorbing material. Do not use sawdust or other combustible material.

Reference to other sections

References: For personal protection, see section 8. For waste disposal, see section 13.

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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe handling advice: Avoid inhalation of vapors and contact with skin and eyes. Observe good chemical hygiene practices.

Technical measures: Do not smoke or use open fire or other sources of ignition.

Technical precautions: Mechanical ventilation may be required.

Conditions for safe storage, including any incompatibilities

Technical measures for safe storage: Follow rules for flammable liquids.

Storage conditions: Store in a cool and well-ventilated place. Avoid contact with oxidizing agents.

Specific end use(s)

Specific use(s): Not relevant.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits:

<u>CAS-No.:</u>	<u>Chemical name:</u>	<u>As:</u>	<u>Exposure limits:</u>		<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
1330-20-7	Xylenes, all isomers	-	100 ppm	435 mg/m3	TWA	-	OSHA
1330-20-7	Xylene (o, m & p isomers)	-	100 ppm		TWA	A4	ACGIH
		-	150 ppm		STEL	A4; 15min	
103-65-1	Cumene	-	50 ppm		TWA	-	ACGIH
103-65-1	Cumene	-	50 ppm	245 mg/m3	TWA	Skin	OSHA
74-98-6	Aliphatic hydrocarbon gasses, Alkane [C1-C4]	-	1000 ppm		TWA	-	ACGIH
100-41-4	Ethyl benzene	-	20 ppm		TWA	A3	ACGIH
100-41-4	Ethyl benzene	-	100 ppm	435 mg/m3	TWA	-	OSHA
67-64-1	Acetone	-	500 ppm		TWA	A4	ACGIH
		-	750 ppm		STEL	A4; 15min	
67-64-1	Acetone	-	1000 ppm	2400 mg/m3	TWA	-	OSHA
74-98-6	Propane	-	1000 ppm	1800 mg/m3	TWA	-	OSHA

Notes:

A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans.

A4: Not Classifiable as a Human Carcinogen.

Skin: Danger of cutaneous absorption. (ACGIH)

X: Skin absorption. (OSHA)

Exposure controls

Engineering measures:

Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mist. Provide easy access to water supply or an emergency shower.

Personal protection:

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Respiratory equipment:

In case of inadequate ventilation: Use respiratory equipment with gas filter, type A2.

Hand protection:

Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection:

Risk of splashes: Wear face shield.

Skin protection:

No special precautions.

Environmental Exposure Controls:

Not available.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance: aerosol
Odor: characteristic
pH: Not available.
Boiling point: Not available.
Flash point: Not available.
Explosion limits: 1,5-13,0 vol%
Vapor pressure: 8300 hPa (20°C)
Relative density: 0,77
Solubility: Insoluble in water (<1%).

Other information

Other data: VOC (Volatile Organic Substances): 684,9 g/l (calculated)

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: None known.

Chemical stability

Stability: Stable under normal temperature conditions.

Possibility of hazardous reactions

Hazardous Reactions: None known.

Conditions to avoid

Conditions/materials to avoid: Avoid exposing aerosol containers to high temperatures or direct sunlight. Avoid contact with oxidizing agents.

Incompatible materials

Incompatible materials: None known.

Hazardous decomposition products

Hazardous decomposition products: No special precautions.

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SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhalation: Vapors and spray mist may irritate throat and respiratory system and cause coughing. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Skin contact: Repeated exposure may cause skin dryness or cracking.

Eye contact: Irritating to eyes.

Ingestion: Delayed symptoms include nausea, vomiting, headache and dizziness.

Specific effects: Frequent inhalation of even small concentrations may cause irritability, fatigue and memory failure and eventually permanent damage to the nervous system, including the brain.

Carcinogenicity:
IARC Cancer Review: Group 2B for Ethylbenzene.
IARC Cancer Review: Group 3 for Xylenes.
National Toxicology Program (NTP): No.
OSHA: No.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains volatile, organic compounds which have a photochemical ozone creation potential.

Persistence and degradability

Degradability: The degradability of the product has not been stated.

Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation.

Mobility in soil

Mobility: No data available.

Results of PBT and vPvB assessment

PBT/vPvB: Not relevant.

Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Waste is classified as hazardous waste. Do not puncture or incinerate even when empty.

Waste from residues: Used cloths, etc. EWC-code: 15 02 02

Contaminated packaging: Empty aerosol containers before disposal.
EWC-code: 15 01 10

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SECTION 14: TRANSPORT INFORMATION

UN number

UN-No: 1950

UN proper shipping name

Proper Shipping Name: AEROSOLS

Additional IMDG information:

EmS: F-D, S-U

MFAG: 1

Transport hazard class(es)

Class: 2,1

Packing group

PG: -

Environmental hazards

Marine pollutant: No.

Environmentally Hazardous substance: No.

Special precautions for user

Special precautions: None known.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk: Not relevant.

SECTION 15: REGULATORY INFORMATION

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

Special provisions: As a general rule, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.
TSCA: Listed.

National regulation: Europe/USA:
This Material Safety Data Sheet has been prepared according to the EU-regulation.
Threshold Limit Values (2013), ACGIH, by the American Conference on Governmental Industrial Hygienists.
The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Air contaminants (OSHA), with amendments.
International Agency for Research on Cancer (IARC): IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Lyon: IARC, World Health Organization.

Chemical Safety Assessment

CSA status: Not relevant.

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SECTION 16: OTHER INFORMATION

For restrictions on use see section 15.

The following sections contain revisions or new statements: -
The (*) indicates the changes made with respect to the previous version.

Approved by DHI.

Allan Vorup

Wording of H-statements:

R10	Flammable.
R11	Highly flammable.
R12	Extremely flammable.
R20	Harmful by inhalation.
R20/21	Harmful by inhalation and in contact with skin.
R36	Irritating to eyes.
R36/37/38	Irritating to eyes, respiratory system and skin.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapors may cause drowsiness and dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.
H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

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H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark.
www.dhigroup.com.
