

Material Safety Data Sheet 91/155/EWG

according to amending law of Ordiance on Hazardous Substances (GefStoffV)

Revision Date 02.09.2005

1. Chemical product and company identification**Product name:**

Pro Dye, Thinner (Thinner-liquid for light curing core varnish)

Manufacturer:

Willmann & Pein GmbH

Schusterring 35, 25355 Barmstedt, Tel.: +49 (0) 41 23 / 92 28 0

2. Composition/Information on Ingredients**Chemical nature**

- **Methyl methacrylate**

- Concentration: ≤ 100,00%

- CAS-No.: 80-62-6

Symbol(s) F, Xi

EC-No.: 201-297-1

Index-No.: 607-035-00-6

R-phrases: R11, R37/38, R43

Nota D

For the full text of the R-phrases mentioned in this Section, see section 16.

3. Hazard Identification**Risk advice to man and the environment**

Xi Irritant



F Highly flammable

R 11 Highly flammable

R 37/38 Irritating to respiratory system and skin

R43 May cause sensitization by skin contact.

4. First-Aid-Measures**After inhalation:**

Remove to fresh air. Obtain medical attention.

After skin contact:

Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

After eye contact:

Rinse thoroughly with plenty of water, also under the eyelids. Consult a physician.

After ingestion:

Immediately give large quantities of water to drink. Induce vomiting immediately and call a physician. Keep respiratory tract clear.

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5. Fire-Fighting-Measures**Suitable extinguishing media:**Water spray; foam; dry chemical; carbon dioxide (CO₂)**Extinguishing media which must not be used for safety reasons:**

High volume water jet

Spezial protective equipment for fire-fighters:

In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)

Additional advice

Cool closed containers exposed to fire with water spray.

6. Accidental Release Measures**Personal precautions:**

Provide adequate ventilation. Keep away heat and sources of ignition. Use personal protective equipment.

Environmental precautions:

Do not empty into drains, risk of explosion.

Methods for cleaning up:

Soak up with inert absorbent material.

7. Handling and storage**Handling****Advice on safe handling:**

Keep container tightly closed. Provide sufficient air exchange and/or exhaust in work rooms.

Advice on protection against fire and explosion:

Keep ignition sources away – Do not smoke.

Take measures to prevent the build up of electrostatic charge. Vapours may form explosive mixture with air. Do not spray on a naked flame or any other incandescent material. Use only explosion-proof equipment.

Storage**Requirements for storage areas and containers:**

Keep only in the original container. Store in receptacle equipped with a vent.

Further information on storage conditions:

Protect from light.

Storage conditions/Storage temperature:

<30°C

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8. Exposure Controls/Personal Protection**Additional information about design of technical systems:** No further data; see item 7.

Components with workplace parameters:		
CAS-No.: 80-62-6 methyl Methacrylate		
MAK	210 mg/m ³ , 50ppm	TRGS 900

Top limit: =1=

If in compliance with the MAK and BAT values, then there should be no risk to the fetus.

TRGS 900

Personal protective equipment:

Respiratory protection:

Use respirator with appropriate filter if vapours or aerosol are released.

Hand protection:

Wear suitable gloves. The glove material has to be impermeable and resistant to the product/the substance/the preparation. 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).

Material	Strength of material	Break through time
Butyl-rubber	0,5mm	><=1h

Eye-protection:

Wear eye/face protection.

Body protection:

Choose body protection according to the amount and concentration of the dangerous substance at the work place. Chemical resistant apron: boots

Hygiene measures:

Do not inhale gas/smoke/vapour/aerosol. Avoid contact with the skin and the eyes. Take off all contaminated clothing immediately with good industrial hygiene and safety practice.

Engineering measures:

Refer to protective measures in sections 7 and 8.

9. Physical and Chemical Properties:**Appearance:**

Form:	liquid
Colour:	Clear
Odour:	ester-like

Safety data:

Melting-point/ range:	-48°C
Boiling-point/ range:	100,3°C; 1.013 hPa
Flashpoint:	10°C; DIN 51755
Ignition temperature:	430°C; DIN 51794
Lower explosion limit:	2,1 % (V)
Upper explosion limit:	12,5% (V)
Vapour pressure:	40 hPa; 20°C

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9. Physical and Chemical Properties:

Density at 20°C:	0,94 g/cm ³
Water solubility:	15,9 g/l; 20°C
pH:	not applicable
Partition coefficient (n-octanol/water):	log Pow: 1,38
Viscosity, dynamic at 20°C:	0,6 mPa s
Relative vapour density:	>1; 20°C

10. Stability and Reactivity**Conditions to avoid:**

Heat, flames and sparks. Exposure to light.

Materials to avoid:

Amines, strong oxidizing agents, ammonia

Hazardous Reactions:

Violent polymerisation can occur. Vapours may form explosive mixture with air.

General advice:

No decomposition if used as directed.

11. Toxicological information

Oral	LD50	> 5000 mg/kg (rat) (OECD Test Guideline 401)
Dermal	LD50	> 5000 mg/kg (rabbit)
Inhalative	LC50	> 29,8 mg/l 4h (rat)

Skin irritation:

Rabbit irritation to skin.

Eye irritation:

Rabbit no eye irritation.

Evaluation mutagenity:

Not mutagenic in AMES Test.

Human experience:

Sensitising effects

Further information:

Inhalation of vapours is irritating to the respiratory system, may cause throat pain and cough.

Ingestion or inhalation of high concentrations may cause injuries to gastrointestinal tract, liver, kidneys and central nervous system. Handle in accordance with good industrial hygiene and safety practice.

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12. Ecological information**Information about elimination (persistence and degradability):**

Biodegradability: 94% 14d; OECD 301 C; Readily Biodegradable.

Ecotoxicity effects**Toxicity to fish:**

LC 50 Oncorhynchus mykiss > 79 mg/l 96h; OECD 203;

Information taken from reference works and the literature

Toxicity to daphnia:

EC50 Daphnia 69mg/l 48 h OECD Test Guidline 202; Literature value

Toxicity to algae:

EC3 scenedesmus quadricauda 37 mg/l 8 d DIN 38412;

EC 50 selenastrum capricornutum 170 mg/l 96 h OECD Test Guideline 201; Literature value

Toxicity to bacteria:

EC50 Pseudomonas putida 100 mg/l Literature value

Further information on ecology**Additional ecological information:**

Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

13. Disposal Conciderations**Product:**

Disposal together with normal waste is not allowed Special disposal required according to local regulations. Do not let product enter drains. Dispose of as special waste in compliance with local and national regulations; Waste codes should be assigned by the user based on the application for which the product was used.

Packaging:

Empty remaining contents. Risk of explosion; Dispose of as unused product. Doispose of in accordance with local regulations.

14. Transport Information/rules

No dangerous transport-good in terms of the transport-rules.

Keep away from food and stimulants.

15. Regulatory information**Labelling according to EEC Directive:**

EU.Directive 67/548EEC

Symbol(s)	F Xi	Highly Flammable Irritant
R-phrases	R11 R37/38 R43	Highly Flammable Irritating to respiratory system and skin. May cause sensitization by skin contact
S-phrases	S2 S24 S37	Keep out of the reach from children Avoid contact with the skin. Wear suitable gloves.

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S46 If swallowed, seek medical advice immediately and show this container or label.

Hazardous components which must be listed on the label:

- Methyl methacrylate

National legislation**WGK (DE)**

WGK Identification Number: 154 WGK: 1, slightly water endangering; Classification source is Annex 2.

Risk classification to VbF (Germany)

A I: Flash point less than 21°C, at 15°C not miscible in water.

15. Regulatory information**Major Accident Hazard**

Falls under German StörfallV 7b

Legislation/Regulation:

Occupational restrictions: Take note of Dir 92/85/EEC on the safety and health of pregnant workers at work and of Dir 93/33/EC on the protection of young people at work.

16. Other Information***Text of R-phrases referred to under headings 2 and 3:**

R11 Highly flammable
R37/38 Irritating to respiratory system and skin.
R43 May cause sensitization by skin contact.

Further information:

These statements solely describe the safety demands of the product and base according to the best of our belief on our today's knowledge. They, however, do not represent an assurance towards properties of the product within the sense of liability, resp. guaranty regulations and thus are given without any obligation.

Safety data sheet certificating division:

Technical department

Contact person:

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