

SAFETY DATA SHEET

EU format in accordance with Commission Regulation (EU) 2020/878 Date of implementation: 4.05.2012

Update Date: 29.08.2025 Version: 5

HARDENER FOR ACRYLIC VARNISH 2:1 FAST PROFESSIONAL**RANAL**[®]

Page:1 from 14

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product ID****ACRYLIC VARNISH HARDENER 2:1 FAST PROFESSIONAL****UFI: 5FD0-C01E-G003-RQ7V****1.2. Identified uses of the substance or mixture that are relevant and uses not recommended**

Identified Use: For professional use in car repainting. Non-recommended uses: no additional information*

1.3. Details of the safety data sheet provider**RANAL Sp. z o.o.**Hive. Łódzka 3
42-240 Rudniki, PLPhone: +48 34 329 45 03
Registration number: 000029202Person responsible for the preparation of the safety data sheet: ranal@ranal.plDistributor : Ada Color Ltd. 176
Brezovsko Shose Street, 4003
Plovdiv, Bulgaria
Mobile: +359896663052
Tel: +35932940456 Fax: +35932940457
web: adacolor-bg.com**1.4. Emergency phone number**112 (general emergency number), 998 (fire brigade), 999 (ambulance)
+48 34 329 45 03 (from 8:00 to 15:00)
Further information: Bulgaria:
Toxicology Clinic at the Ni.I. Pirogov Hospital for Active
Treatment of Sick Patients Emergency Phone:
+359 02 9154 409 (during standard working hours except Saturday and Sunday)
+359 02 9154 346 (continuous service)**SECTION 2: DESCRIPTION OF HAZARDS****2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP].

Current Burns, Category 3	H226
Acute toxicity (after inhalation exposure: dust, mist), Category 4H332 Corrosiveness/Skin Irritation, Category 2	
	H315
Skin sensitization, category 1	H317
STW (specific organ toxicity) – a single exposure Category 3, Narcotic EffectH336	
STW (specific organ toxicity) – a single exposure category 3, respiratory irritationH335 Full text of the H and EUH statements: see section 16	

Harmful effects related to physicochemical properties, effects on human health and the environment. No further information.**2.2. Elements of the label****Labelling according to Regulation (EC) No 1272/2008 [CLP]**

Contains xylene.

Icons:

Signal word: **Attention.**

SAFETY DATA SHEET**EU format in accordance with Commission Regulation (EU) 2020/878 Date of implementation: 4.05.2012****Update Date: 29.08.2025 Version: 5****HARDENER FOR ACRYLIC VARNISH 2:1 FAST PROFESSIONAL****RANAL®****Page:2 from 14****Hazard warnings:**

- H226 Flammable liquid and vapors.
H315 It causes skin irritation.
H317 May cause an allergic skin reaction. H332 Harmful by inhalation.
H335 It can cause irritation of the respiratory tract. H336 It can cause drowsiness or dizziness.

Safety recommendations:

- P210 Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. Smoking is prohibited.
P261 Avoid inhaling fumes/aerosols.
P271 Use only outdoors or in a well-ventilated area.
P280 Use protective gloves/protective clothing/safety goggles/protective face mask. P312 If you are unwell, call the TOXICOLOGY CENTER/a doctor.

2.3. Other hazards

Other hazards that do not lead to classification:

It can cause strong reactions with alkaline products, as well as with organic products such as alcohols or amines. It reacts with water, forming gases or heat and overpressure: tearing the container. Polymerizes when heated: pressure build-up can cause the closed container to rupture.

It does not contain PBT/vPvB substances $\geq 0,1\%$ assessed in accordance with REACH Annex XIII.

The mixture does not contain substances listed in accordance with Article 59(1) of REACH due to endocrine disrupting properties, or the substance(s) have not/have been identified as an endocrine disrupting substance(s) in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in a concentration equal to or greater than 0.1%.*

SECTION 3: COMPOSITION/INGREDIENT INFORMATION**3.1. Substances**

Not applicable.

3.2. Mixtures*

Name	Product ID	%	Classification according to Regulation (EC) No 1272/2008 [CLP]
Hexamethylene-1,6-diisocyanate homopolymer	CAS Number: 28182-81-2 EC number: 931-274-8 REACH No: 01-2119485796-17	20	Acute Tox. 4 (inhale), H332 Skin Sens. 1, H317 STOT SE 3, H335
Butyl Acetate substance with a Community-defined maximum concentration in the working environment	CAS Number: 123-86-4 EC number: 204-658-1 Index number: 607-025-00-1 REACH No: 01-2119485493-29	20	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066
Xylene substance with a Community-defined maximum concentration in the working environment (squirrel B)	CAS Number: 1330-20-7 EC number: 215-535-7 Index number: 601-022-00-9 REACH No: 01-2119488216-32	20-25	Flam. Liq. 3, H226 Acute Tox. 4 (skin), H312 (ATE=1100 mg/kg body weight) Acute Tox. 4 (вдишване), H332 (ATE=1,5 mg/l/4h) Skin Irrit. 2, H315
1-methoxy-2-propyl acetate substance with a Community-defined maximum concentration in the working environment	CAS Number: 108-65-6 EC number: 203-603-9 Index number: 607-195-00-7 REACH No: 01-2119475791-29	10 - 15	Flam. Liq. 3, H226
Isophorone diisocyanate homopolymer	CAS Number: 53880-05-0 EC number: 500-125-5	10 - 15	Skin Sens. 1, H317
Isoforon diisocyanate* (note 2)	CAS Number: 4098-71-9 EC Number: 223-861-6 Index number: 615-008-00-5 REACH No: 01-2119490408-31	< 0,01	Acute Tox. 3 (вдишване), H331 (ATE=0,031 mg/l/4h) Skin Irrit.2, H315 Eye Irritation. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 2, H411

SAFETY DATA SHEET**EU format in accordance with Commission Regulation (EU) 2020/878 Date of implementation: 4.05.2012****Update Date: 29.08.2025 Version: 5****HARDENER FOR ACRYLIC VARNISH 2:1 FAST PROFESSIONAL****Page:3 from 14**

Specific concentration limits:*

Name	Product ID	Specific concentration limits
isophorone diisocyanate	CAS Number: 4098-71-9 EC number: 223-861-6 Index number: 615-008-00-5 REACH No: 01-2119490408-31	(0.5 ≤ C ≤ 100) Resp. Sens. 1, H334 (0.5 ≤ C ≤ 100) Skin Sens. 1, H317

Note 2: The indicated isocyanate concentration is the percentage by weight of the free monomer calculated relative to the total weight of the mixture.

Note C: Some organic matter is marketed as a specific isomer or as a mixture of several isomers. In this case, the supplier must indicate on the label whether the substance is a specific isomer or a mixture of isomers.

The full text of the H and EUH submissions is given in Section 16.

SECTION 4: FIRST AID MEASURES**4.1. Description of first aid measures**

First aid: General tips:

See section 11 of the safety data sheet.

First aid – measures after inhalation:

If breathing is difficult, move or transfer the victim to fresh air and make sure that he can rest in a position that allows him to breathe freely.

First aid – measures after skin contact:

In case of skin contamination, immediately change all contaminated clothes and wash the contaminated skin with plenty of soap and water. Rinse the skin with water/shower. In case of skin irritations or rashes: Seek medical attention/advice. If the skin reaction persists, consult a doctor.

First aid – measures after eye contact:

Rinse gently with water for a few minutes. Remove contact lenses, if any, and are easy to do. Continue rinsing. Call a doctor immediately. In case of contact with eyes, rinse immediately with plenty of water and seek medical attention.

First aid – after ingestion:

If swallowed, rinse mouth. DO NOT induce vomiting. Call a doctor immediately.

4.2. Most significant acute symptoms and effects that occur after a certain period of time

Symptoms/effects when inhaled: Vapors can cause drowsiness and dizziness.

Skin contact symptoms/effects: Prolonged or repeated contact may cause dryness of the skin.

Symptoms/effects after eye contact: May cause eye irritation.

4.3. Indication of the need for any emergency medical care and special treatment

Symptomatic treatment.

SECTION 5: FIRE MEASURES**5.1. Fire extinguishers**

Suitable extinguishing agents: dry powder, alcohol-resistant foam, carbon dioxide, water mist. Unsuitable extinguishing agents: Do not use a strong jet of water.*

5.2. Particular hazards arising from the substance or mixture

Hazardous decomposition products in the event of fire:

Carbon monoxide, nitrogen oxides, other toxic gases.

5.3. Tips for firefighters

Protection during fire extinguishing: Do not intervene without proper protective equipment. Independent breathing apparatus. Full protective clothing.

SECTION 6: EMERGENCY RELEASE MEASURES**6.1. Personal Protective Equipment, Protective Equipment and Emergency Procedures**

For non-emergency personnel:

Protective equipment: remove all sources of ignition. Ensure adequate ventilation. Avoid any direct

SAFETY DATA SHEET**EU format in accordance with Commission Regulation (EU) 2020/878 Date of implementation: 4.05.2012****Update Date: 29.08.2025 Version: 5****HARDENER FOR ACRYLIC VARNISH 2:1 FAST PROFESSIONAL****Page:4 from 14**

and indirect contact with the missing components. Avoid contact with skin and eyes. Use the necessary personal protective equipment – section 8 of the safety data sheet.

For those responsible for emergencies:

Protective equipment: Do not intervene without proper protective equipment. See section 8. *

6.2. Environmental precautions

Avoid discharge into the environment. Prevent it from entering surface water and sewers. Do not allow the product to enter groundwater, bodies of water or sewers, even in small quantities.

6.3. Methods and materials for restraint and cleaning

Prevent the spread of contamination: Cover the spilled/spilled product with non-flammable material, such as sand, soil, vermiculite. Assemble the product mechanically.

6.4. Reference to other sections

Personal protective equipment – see section 8. Waste disposal – see section 13.

SECTION 7: OPERATION AND STORAGE**7.1. Safe Operation Precautions**

Precautions for safe handling: Ensure good ventilation in the workplace. Keep away from heat, hot surfaces, sparks, open flames, and other sources of ignition. Don't smoke. Use only outdoors or in a well-ventilated area. Wear personal protective equipment.

Hygiene recommendations: Wash contaminated clothes before reuse. Do not take contaminated protective clothing outside the workplace. Do not eat, drink or smoke while using the product. Wash your hands after each contact with the product.

7.2. Safe storage conditions, including incompatibilities

Technical measures: Ground/connect the container and receiving equipment.

Storage conditions: Store in a well-ventilated area. Store in a cool place. Keep the container tightly closed. Keep away from moisture. Keep away from frost.*

7.3. Specific end-use(s)

No further information.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTIVE EQUIPMENT**8.1. Control parameters***

National occupational exposure limits and biological limit values

Xylene (1330-20-7)	
EU – Indicative Occupational Exposure Limit (IOEL)	
Local name	Xylene, mixed isomers, pure
IOEL TWA	50 ppm
IOEL STEL	442 mg/m ³
	100 ppm
Zabelezhka	Skin
Normative reference	COMMISSION DIRECTIVE 2000/39/EC
Poland – Maximum permissible concentration in the workplace	
Local name	Xylene mixture of isomers: 1,2-; 1,3-; 1,4-
NDS (OEL TWA)	100 mg/m
NDSch (OEL STEL)	200 mg/m ³
Regulatory reference	Official Gazette 2018, paragraph 1286
1-methoxy-2-propyl acetate (108-65-6)	
EU – Indicative Occupational Exposure Limit (IOEL)	
Local name	2-methoxy-1-methylethyl acetate
IOEL TWA	50 ppm
IOEL STEL	550 mg/m ³
	100 ppm
Zabelezhka	Skin
Normative reference	COMMISSION DIRECTIVE 2000/39/EC
Poland – Maximum permissible concentration in the workplace	
Local name	2-methoxy-1-methylethyl acetate
NDS (OEL TWA)	260 mg/m
NDSch (OEL STEL)	520 mg/m ³
Regulatory reference	Official Gazette 2018, paragraph 1286
Butyl Acetate (123-86-4)	

SAFETY DATA SHEET

EU format in accordance with Commission Regulation (EU) 2020/878 Date of implementation: 4.05.2012

Update Date: 29.08.2025 Version: 5

HARDENER FOR ACRYLIC VARNISH 2:1 FAST PROFESSIONAL**ANAL**

Page:5 from 14

EU – Indicative Occupational Exposure Limit (IOEL)

Local name	n-butyl acetate
IOEL TWA	50 ppm
IOEL STEL	723 mg/m ³
	150 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2019/1831

Poland – Maximum permissible concentration in the workplace

Local name	n-butyl acetate (n-butyl acetate)
OEL TWA	240 mg/m
NDSch (OEL STEL)	720 mg/m ³
Regulatory reference	Official Gazette 2018, paragraph 1286

Hexamethylene diisocyanate (822-06-0)***Poland – Maximum permissible concentration in the workplace**

Local name	Hexan-1,6-diyl diisocyanate
NDS (OEL TWA)	0,04 mg/m
NDSch (OEL STEL)	0.08 mg/m ³
Zabelezhka	Skin (Labelling a substance with the designation 'skin' means that the absorption of the substance through the skin can be as significant as exposure through inhalation).
Regulatory reference	Official Gazette 2018, paragraph 1286

isophorone diisocyanate (4098-71-9)***Poland – Maximum permissible concentration in the workplace**

Local name	3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (isophorone diisocyanate)
NDS (OEL TWA)	0,04 mg/m
Regulatory reference	Official Gazette 2018, paragraph 1286

8.1.2. Recommended monitoring procedures

Monitoring method: EN 482. Occupational exposure – General requirements for characterizing procedures for measuring chemical agents.

8.1.3. Air pollutants are formed

No further information available

8.1.4. DNEL and PNEC*

Xylene (1330-20-7)	
DNEL/DMEL (Workers)	
Acute systemic effects after inhalation	289 mg/m
Acute - local effects after inhalation	289 mg/m
Long-term - systemic effects after skin contact	180 mg/kg body weight per day
Long-term - systemic effects after inhalation	77 mg/m
DNEL/DMEL (total population)	
Acute systemic effects after inhalation	174 mg/m
Acute - local effects after inhalation	174 mg/m ³
Long-term - systemic effects after ingestion	1.6 mg/kg body weight/day
Long-term - systemic effects after inhalation	14.8 mg/m ³
Long-term - systemic effects after skin contact	108 mg/kg body weight/day
PNEC (Water)	
PNEC aqua (fresh water)	0.327 mg/l
PNEC aqua (sea water)	0.327 mg/l
PNEC aqua (intermittent, fresh water)	0.327 mg/l
PNEC (sludge)	
PNEC Sediment (Fresh Water)	12.46 mg/kg dry weight
PNEC sediment (salt water)	12.46 mg/kg dry weight
PNEC (soil)	
PNEC Soil	2.31 mg/kg dry weight
PNEC (Wastewater Treatment Plant)	
PNEC Treatment Plant	6.58 mg/l
1-methoxy-2-propyl acetate (108-65-6)	
DNEL/DMEL (workers)	
Acute - local effects after inhalation	550 mg/m
Long-term - systemic effects after skin contact	796 mg/kg body weight/day
Long-term - systemic effects after inhalation	275 mg/m
DNEL/DMEL (total population)	
Long-term - systemic effects after ingestion	36 mg/kg body weight/day

SAFETY DATA SHEET

EU format in accordance with Commission Regulation (EU) 2020/878 Date of implementation: 4.05.2012

Update Date: 29.08.2025 Version: 5

HARDENER FOR ACRYLIC VARNISH 2:1 FAST PROFESSIONAL

Page:6 from 14

Long-term – systemic effects after inhalation	33 mg/m
Long-term – systemic effects after skin contact	320 body weight/day
Long-term – local effects after inhalation	33 mg/m
PNEC (Water)	
PNEC aqua (fresh water)	0.635 mg/l
PNEC aqua (sea water)	0.0635 mg/l
PNEC aqua (intermittent, fresh water)	6.35 mg/l
PNEC (sludge)	
PNEC Sediment (Fresh Water)	3.29 mg/kg dry weight
PNEC sediment (salt water)	0.329 mg/kg dry weight
PNEC (soil)	
PNEC Soil	0.29 mg/kg dry weight
PNEC (Wastewater Treatment Plant)	
PNEC Treatment Plant	100 mg/l
Hexamethylene-1,6-diisocyanate homopolymer (28182-81-2)	
DNEL/DMEL (workers)	
Acute – local effects after inhalation	1 mg/m
Long-term – local effects after inhalation	0.5 mg/kg body weight/day
PNEC (Water)	
PNEC aqua (fresh water)	0.127 mg/l
PNEC aqua (sea water)	0.0127 mg/l
PNEC aqua (intermittent, fresh water)	1.27 mg/l
PNEC (sludge)	
PNEC Sediments (Fresh Water)	266,701 mg/kg dry weight
PNEC sediments (salt water)	26670 mg/kg dry weight
PNEC (soil)	
PNEC Soil	53 183 mg/kg dry weight
NECP (STP)	
PNEC Treatment Plant	88 mg/l
Butyl Acetate (123-86-4)	
PNEC (Water)	
PNEC water (fresh water)	0.18 mg/l
PNEC aqua (sea water)	0.018 mg/l
PNEC aqua (intermittent, fresh water)	0.36 mg/l
PNEC (sludge)	
PNEC Sediments (Fresh Water)	0.981 mg/kg dry weight
PNEC sediments (salt water)	0.0981 mg/kg dry weight
PNEC (soil)	
PNEC Soil	0.0903 mg/kg dry weight
PNEC (Wastewater Treatment Plant)	
PNEC Treatment Plant	35.6 mg/l
hexamethylene diisocyanate (822-06-0)	
DNEL/DMEL (workers)	
Acute - local effects after inhalation	0,07 mg/m
Long-term - local effects after inhalation	0,035 mg/m
NECP (STP)	
PNEC Treatment Plant	8.42 mg/l
isophorone diisocyanate (4098-71-9)	
DNEL/DMEL (workers)	
Acute - local effects after inhalation	0,045 mg/m
Long-term - local effects after inhalation	0,045 mg/m
PNEC (Water)	
PNEC aqua (fresh water)	0.027 mg/l
PNEC aqua (sea water)	0.0004 mg/l
PNEC aqua (intermittent, fresh water)	0.27 mg/l
PNEC aqua (periodic, sea water)	0.04 mg/l
PNEC (sediments)	
PNEC Sediments (Fresh Water)	98.51 mg/kg dry weight
PNEC sediments (seawater)	1.46 mg/kg dry weight
PNEC (soil)	
PNEC Soil	19.8 mg/kg dry weight
PNEC (Wastewater Treatment Plant)	
PNEC Treatment Plant	10.6 mg/l

8.1.5 Management of risk groups

No further information available

8.2. Exposure control

Appropriate engineering control measures*:
Ensure good ventilation in the workplace.

8.2.2. Individual protective measures, such as personal protective equipment

Personal protective equipment symbols*:



Eye/Face Protection:
Protective glasses.

Skin and body protection:
Wear appropriate protective clothing.

Hand protection:
Protective gloves

Airway protection:
If there is insufficient ventilation, wear a suitable breathing apparatus.

Thermal hazards*
No further information.

Environmental Exposure Control:
Avoid discharge into the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

State of Aggregation	liquid
Colour	Colourless
Smell	Characteristic*
Odor threshold	0.9-9 mg/m ³ (xylene)
pH	Not available
Melting point	Not applicable
Freezing point	Not available
Boiling point	126-140 °C
Flammability of materials	Not applicable
Explosive properties	No data
Lower limit of explosiveness	1.1% vol. Xylene*
Upper limit of explosiveness	8% vol. Xylene
Flame Temperature	32 °C
Self-ignition temperature	approx. 430°C
Decomposition temperature	Not available
Kinematic viscosity	Not available
Solubility	Poorly soluble
Partition coefficient n-octanol/water (Log Kow) is not	available*
Vapor pressure14 hPa	
Vapor pressure at 50 °C	Not available
Density	approx. 1 g/cm ³
Relative density	Not available
Relative vapor density at 20 °C	not available*
Characteristics of particles	Not applicable

9.2. Other information

9.2.1. Information on physical hazard classes *
No further information.

9.2.2. Other safety features*
No further information.

SECTION 10: STABILITY AND REACTIVITY

SAFETY DATA SHEET

EU format in accordance with Commission Regulation (EU) 2020/878 Date of implementation: 4.05.2012

Update Date: 29.08.2025 Version: 5

HARDENER FOR ACRYLIC VARNISH 2:1 FAST PROFESSIONAL**ANAL**

Page:8 from 14

10.1. Reactivity

The product is not reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

The product is stable under normal conditions of use.

10.3. Possibility of dangerous reactions

It can cause strong reactions with alkaline products, as well as with organic products such as alcohols or amines. It reacts with water, forming gases or heat and overpressure: tearing the container. Polymerizes when heated: pressure build-up can cause closed containers to rupture.

10.4. Conditions to be avoided

Protect against ignition sources. Avoid the accumulation of static electricity (e.g. by grounding). Protect from sunlight. Avoid high temperatures. Protect from moisture. Protect from frost.

10.5. Incompatible materials

Avoid contact with: strong acids, strong bases and strong oxidizing agents. Do not come into contact with water.*

10.6. Dangerous decomposition products

Carbon monoxide. Oxides. Other toxic gases.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on hazard classes defined in Regulation (EC) No 1272/2008***

Acute toxicity (oral): Not classified (based on available data, classification criteria not met)

Acute toxicity (cutaneous): Not classified (based on available data, classification criteria not met)

Acute toxicity (by inhalation): Inhalation: Dust, mist: Harmful by inhalation.

Acrylic curing varnish 2+1 FAST PROFESSIONAL*

ATE CLP (dust, mist) 2.703 mg/l/4h

Xylene (1330-20-7)

LD50 oral, rat	3523 mg/kg rat
LD50 dermal, rabbit	12 126 mg/kg body weight Animal: rabbit, gender: male
LC50 Inhalation – Rat	27.124 mg/l

1-methoxy-2-propyl acetate (108-65-6)

LD50, dermal, rat	>2000 mg/kg body weight Animal: rat, sex: male, Guideline: OECD Guideline 402 (Acute dermal toxicity)
-------------------	---

Hexamethylene-1,6-diisocyanate homopolymer (28182-81-2)*

LD50 oral, rat	>2500 mg/kg body weight Animal: rat, sex: female, Guideline: OECD Guideline 423 (Acute oral toxicity – method for classifying acute toxicity)
LD50, dermal, rat	>2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute dermal toxicity)
LD50, dermal, rabbit	>2000 mg/kg body weight Animal: rabbit, Guidelines: other:

Butyl Acetate (123-86-4)

LD50 oral, rat	12.2 ml/kg Source: ECHA
LC50 Inhaled – Rat (Steam)	>4.9 mg/l Source: ECHA

isophorone diisocyanate (4098-71-9)*

LD50 oral, rat	4814 mg/kg body weight Animal: rat, Guidelines: OECD Guideline 401 (Acute Oral Toxicity), Results Comments: Other:, 95% CL: 4295 - 5396
LD50, dermal, rat	>7000 mg/kg body weight Animal: rat, Guidelines: OECD Guideline 402 (Acute Dermal Toxicity), Comments on results: other:
LC50 Inhalation – Rat	31 mg/m ³ Source: ECHA

Skin corrosion/irritation: Causes skin irritation.**Butyl Acetate (123-86-4)**

pH	6.2 Temperature: 20 °C Concentration: 5.3 g/L
----	---

Serious eye damage/eye irritation: Not classified (Based on available data, classification criteria not met)**Butyl Acetate (123-86-4)**

SAFETY DATA SHEET

EU format in accordance with Commission Regulation (EU) 2020/878 Date of implementation: 4.05.2012

Update Date: 29.08.2025 Version: 5

HARDENER FOR ACRYLIC VARNISH 2:1 FAST PROFESSIONAL**ANAL**[®]

Page:9 from 14

pH	6.2 Temperature: 20 °C Concentration: 5.3 g/L
----	---

Sensensification of the respiratory tract or skin: May cause an allergic skin reaction.**Germ cell mutagenicity:** Not classified (based on available data, classification criteria not met).**Carcinogenicity:** Not classified (based on available data, the classification criteria are not met). **Reproductive toxicity:** Not classified (based on available data, the classification criteria are not met).**WTO (Specific Organ Toxicity) – Single Exposure**

May cause drowsiness or dizziness.* May cause respiratory irritation.

Hexamethylene-1,6-diisocyanate homopolymer (28182-81-2)

WTO (Specific Organ Toxicity) – Single Exposure	May cause respiratory tract irritation
---	--

Butyl Acetate (123-86-4)

WTO (Specific Organ Toxicity) – Single Exposure	May cause drowsiness or dizziness
---	-----------------------------------

Isophorone diisocyanate (4098-71-9)

WTO (Specific Organ Toxicity) – Single Exposure	May cause respiratory tract irritation
---	--

WTO (specific organ toxicity) – repeated exposure: Not classified (based on available data, classification criteria not met).**Xylene (1330-20-7)**

LOAEL (oral, rat, 90 days)	150 mg/kg body weight Animal: rat, sex: male, Guideline: OECD Guideline 408 (Oral toxicity after repeated administration for 90 days in rodents, guideline: EPA OPP 82-1 (oral toxicity after 90 days of administration)
----------------------------	--

1-methoxy-2-propyl acetate (108-65-6)

NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Multi-Dose Toxicity Study with Reproductive/Developmental Toxicity Screening).
NOAEL (dermal, rat/rabbit, 90 days)	>1000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 410 (OECD Guideline 410) Multiple dosing toxicity study after dermal administration (21/28 days)

Butyl Acetate (123-86-4)

LOAEL (oral, rat, 90 days)	500 mg/kg body weight Animal: rat, Guidelines: EPA OTS 798.2650 (90-day oral toxicity effect in rodents)
NOAEL (oral, rat, 90 days)	125 mg/kg body weight Animal: rat, Guidelines: EPA OTS 798.2650 (90-day oral toxic effect in rodents)

Inhalation hazard

Not classified (based on the available data, the classification criteria are not met).

Butyl Acetate (123-86-4)

Viscosity, kinematic	0.83 mm ² /s Temperature: "20 °C" Parameter: kinematic viscosity (mm ² /s)
----------------------	--

11.2. Information on other hazards*

No further information.

SECTION 12: ENVIRONMENTAL INFORMATION**12.1. Toxicity**

Hazardous to the aquatic environment, short-term (acute): Not classified (Based on available data, classification criteria not met)

Hazardous to the aquatic environment, long-term (chronic): Not classified (Based on available data, classification criteria not met)

Xylene (1330-20-7)

LC50 - Fish [1]	2.6 mg/l Test organisms (species): Oncorhynchus mykiss (former name: Salmo gairdneri)
EC50 - Crustaceans [1]	>3.4 mg/l Test organisms (species): Ceriodaphnia dubia
NOEC for Chronic Toxicity to Fish	>1.3 mg/l Test organisms (species): Oncorhynchus mykiss (former name: Salmo gairdneri) Duration: "56 d"

1-methoxy-2-propyl acetate (108-65-6)

LC50 - Pisces [1]	>100 mg/l Organisms (species) tested: Oryzias latipes
-------------------	---

SAFETY DATA SHEET

EU format in accordance with Commission Regulation (EU) 2020/878 Date of implementation: 4.05.2012

Update Date: 29.08.2025 Version: 5

HARDENER FOR ACRYLIC VARNISH 2:1 FAST PROFESSIONAL

Page:10 from 14

EC50 - Crustaceans [1]	>500 mg/l Organisms (species) tested: Daphnia magna
EC50 72h - Algae [1]	>1000 mg/l Тестови организми (видове): Pseudokirchneriella subcapitata (предишни наименования: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: "21 days"
NOEC for Chronic Toxicity to Fish	47.5 mg/l Test organisms (species): Oryzias latipes Duration: "14 days"
Hexamethylene-1,6-diisocyanate homopolymer (28182-81-2)	
EC50 72h - Algae [1]	>1000 mg/l Organisms (species) tested: other:
Butyl Acetate (123-86-4)	
LC50 - Pisces [1]	18 mg/l Source: ECHA
EC50 - Crustaceans [1]	44 mg/l Source: ECHA
EC50 - Other aquatic organisms [1]	32 mg/l Test organisms (species): Artemia salina
EC50 72h - Algae [1]	674,7 mg/l Test organisms (species): Desmodesmus subspicatus (former name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	246 mg/l Тестови организми (видове): Pseudokirchneriella subcapitata (предишни наименования: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	47.6 mg/l Test organisms (species): Daphnia magna Duration: "21 d"
NOEC (chronic)	23.2 mg/l Test organisms (species): Daphnia magna Duration: "21 days"
isophorone diisocyanate (4098-71-9)	
LC50 - Fish [1]	>208 mg/l Organisms tested (species): Cyprinus carpio
EC50 - Crustaceans [1]	27 mg/l Tested organisms (species): Daphnia magna
EC50 72h - Algae [1]	>70 mg/l Test organisms (species): Desmodesmus subspicatus (former name: Scenedesmus subspicatus)

12.2. Sustainability and degradability***Acrylic curing varnish 2+1 Fast Professional**

Stability and degradability	It does not degrade quickly
Xylene (1330-20-7)	
Stability and degradability	It does not degrade quickly
1-methoxy-2-propyl acetate (108-65-6)	
Stability and degradability	It does not degrade quickly
Hexamethylene-1,6-diisocyanate homopolymer (28182-81-2)	
Stability and degradability	It does not degrade quickly
Butyl Acetate (123-86-4)	
Stability and degradability	It does not degrade quickly
Isophorone diisocyanate homopolymer (53880-05-0)	
Stability and degradability	It does not degrade quickly
Isophorone diisocyanate (4098-71-9)	
Stability and degradability	It does not degrade quickly

12.3. Bioaccumulative capacity*

Butyl Acetate (123-86-4)	
N-octanol/water partition coefficient (Log Pow)	1.78 Source: HSDB
isophorone diisocyanate (4098-71-9)	
N-octanol/water partition coefficient (Log Pow)	4.75 Source: ICSC

12.4. Soil Transferability *

No further information.

12.5. PBT and vPvB Evaluation Results

No further information.

12.6. Endocrine disrupting properties *

No further information.

12.7. Other adverse effects

No further information.

SECTION 13: WASTE DISPOSAL**13.1. Waste treatment methods ***

SAFETY DATA SHEET**EU format in accordance with Commission Regulation (EU) 2020/878 Date of implementation: 4.05.2012****Update Date: 29.08.2025 Version: 5****HARDENER FOR ACRYLIC VARNISH 2:1 FAST PROFESSIONAL****RANAL®****Page:11 from 14**

Regional waste regulations: Dispose of in accordance with applicable regulations.

Waste disposal methods: Dispose of the contents/container in accordance with the recommendations of an authorized waste sorting and collection center.

Wastewater disposal recommendations: Do not dispose of in the drain.

Recommendations for disposal of the product/packaging: Dispose of the product and packaging as hazardous waste. Do not dispose of with household waste. After cleaning, recycle or dispose of in an authorized facility. Additional information: Flammable vapors may accumulate in the container.

European Waste List (LoW, EC 2000/532):

08 05 01* - isocyanate waste

15 01 10 - Packaging containing residues of hazardous substances or contaminated with them (e.g. plant protection products of toxicity classes I and II – very toxic and toxic)

SECTION 14: TRANSPORT INFORMATION

In accordance with ADR/IMDG/IATA

ADR	IMDG	IATA
14.1. UN List Number or Identification Number		
United Nations 1866	United Nations 1866	United Nations 1866
14.2. Exact name of the UN-listed consignment		
RESIN SOLUTION	RESIN SOLUTION	Resin solution
Description of the transport document		
UN 1866 RESIN SOLUTION, 3, III, (D/E)	UN 1866 RESIN SOLUTION, 3, III (32°C c.c.)	UN 1866 Resin solution, 3, III
14.3. Transport hazard class(s)		
3	3	3
		
14.4. Packing group		
III	III	III
14.5. Hazard to the environment		
Product hazardous to the environment: No	Product hazardous to the environment: No Marine pollutant: No	Environmentally hazardous product: No
No further information available		

14.6. Special precautions for consumers * Road transport

Classification Code (ADR):

F1

Limited Quantities (ADR):

5 I

Special Packaging Regulations (ADR):

PP1

Combined packaging (ADR) provisions:

MP19

Transport category (ADR):

3

Special Provisions for Carriage – Packaging:

V12



Orange Signs:

Tunnel Restriction Code (ADR):

D/E

Sea transport

Special provisions (IMDG):

223, 955

Limited quantities (IMDG):

5 L

Special Packaging Regulations (IMDG):

PP1

EmSNo (Fire):

F-E

EmS No. (Spill):

S-E

Loading Category (IMDG):

A

Air transport

No data available.

14.7. Maritime transport of cargo in bulk according to instruments of the International Maritime Organization*

Not applicable.

SECTION 15: INFORMATION ON THE REGULATORY FRAMEWORK**15.1. Substance or mixture-specific safety, health and environmental legislation***

EU regulations:

Annex XVII to the REACH Regulation (restriction conditions)

Does not contain substances listed in Annex XVII to REACH (restriction conditions)

Annex XIV to REACH (Authorisation List)

Does not contain substances listed in Annex XIV to REACH (Authorisation List)

REACH Candidate List (SVHC)

Does not contain substances listed on the REACH Candidate List

PIC Regulation (EU 649/2012, prior informed consent)

Does not contain PIC listed substances (Regulation (EU) No 649/2012 on the export and import of hazardous chemicals)

POP Regulation (EU 2019/1021, persistent organic pollutants)

Does not contain substances included in the POP list (Regulation (EU) 2019/1021 on persistent organic pollutants)

Ozone Layer Regulation (EU 1005/2009)

Does not contain substances included in the ozone depletion list (Regulation (EC) No 1005/2009 on substances depleting the ozone layer)

Dual-use regulation (428/2009)

It does not contain substances which are the subject of Council Regulation (EC) No 428/2009 of 5 May 2009 establishing a Community regime for the control of exports, transfer, intermediation and transit of dual-use goods.

Explosives Precursors Regulation (EU 2019/1148)

Does not contain substances included in the list of explosives precursors (Regulation (EU) 2019/1148 concerning the placing on the market and use of explosives precursors)

Regulation on drug precursors (EC 273/2004)

Does not contain substances included in the list of drug precursors (Regulation (EC) No 273/2004 concerning the manufacture and placing on the market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Other regulations:

- Safety data sheet in EU format in accordance with Commission Regulation (EU) 2020/878.
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the registration, evaluation, authorisation and restriction of chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Regulations (EEC) No 793/93 and (EC) Council No 1488/94, Council Directive 76/769/EEC and Commission Directive 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No 1907/2006.
- ADR Agreement: Government Statement of 15 February 2021 on the entry into force of amendments to Annexes A and B to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), concluded in Geneva on 30 September 1957 (Official Gazette 2021, paragraph 874).
- Regulation of the Minister of Health of 30 December 2004 on occupational health and safety related to the presence of chemical agents in the workplace (Official Gazette No 11, paragraph 86, as amended; consolidated Official Gazette 2016, paragraph 1488).

15.2. Safety assessment of the chemical or mixture

No chemical safety assessment has been carried out.

SECTION 16: FRIEND INFORMATION

Indication of changes:

Safety data sheet in EU format in accordance with Commission Regulation (EU) 2020/878.

Full text of H and EUH statements:

Acute Tox. 3 (inhalation)Acute toxicity after exposure by inhalation), cat .	3. Acute Tox. 4 (skin)Acute toxicity (after skin contact), cat. 4.
Acute Tox. 4 (inhalation)Acute toxicity after exposure by inhalation), cat. 4*	Aquatic Chronic 2Hazardous to the aquatic environment – chronic hazard, category 2*
EUH066	Repeated exposure can cause the skin to dry out or crack.
Eye Irrit. 2	Serious eye damage/eye irritation, cat. 2.
Flam. Liq. 3	Flammable liquids, cat. 3.
H226	Flammable liquids and vapors.
H312	Harmful in contact with the skin.
H315	It causes skin irritation, cat. 2.
H317	May cause an allergic skin reaction.
H319	It causes serious eye irritation.

SAFETY DATA SHEET**EU format in accordance with Commission Regulation (EU) 2020/878 Date of implementation: 4.05.2012****Update Date: 29.08.2025 Version: 5****Page:13 from 14****HARDENER FOR ACRYLIC VARNISH 2:1 FAST PROFESSIONAL**

H331	Toxic by inhalation.
H332	Harmful by inhalation.
H334	May cause allergic or asthmatic symptoms or difficulty breathing when inhaled.
H335	It can cause irritation of the respiratory tract.
H336	May cause drowsiness or dizziness.*
H411	Toxic to aquatic organisms, with a long-lasting effect.
Resp. Sens. 1	Respiratory sensitization, cat. 1
Skin Irrit. 2	Corrosion/irritation of the skin, cat. 2.
Skin Sens. 1 .	Skin sensitization, cat. 1
STOT SE 3STOT (specific toxicity to certain organs) — single exposure, cat. 3, Irritation of the respiratory tract	

Classification and procedure used to determine the classification of mixtures in accordance with Regulation (EC) No 1272/2008 [CLP]:*

Flam. Liq. 3	H226	Based on test results
Acute Tox. 4 (Inhalation: dust, mist)	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Skin Sens 1	H317	Calculation method
STOT SE 3	H336	Calculation method
STOT SE 3	H335	Calculation method

Explanation of abbreviations and acronyms used in the safety data sheet Abbreviations and acronyms:

DNA European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE Expected acute toxicity

BCF Factor for BCF BLV

bioconcentration Quantitative limit value

BOD Biochemical oxygen consumption (BOD) COD
Chemical Oxygen Consumption (COD)DMEL Derived level causing minimal effects of DNEL
Derivative level without effectEC numberEuropean Community measure EC50
Average effective concentration

IN European standard

IARC International Agency for Research on Cancer IATA
International Air Transport Association

IMDG International Maritime Dangerous Goods Organization

LC50 Concentration of a lethal substance in 50% of the test population LD50 The dose that
causes death in 50% of the test population

LOAEL Lowest level at which no adverse effects are observed NOAEL

Concentration at which no adverse effects are observed NOAEL Dose at which
no harmful changes are observedNOEC Highest concentration at which no adverse effects are observed OECD Organisation
for Economic Co-operation and DevelopmentOEL Occupational Exposure Limit Value PBT Persistent,
Bioaccumulative and Toxic Substance PNEC Suspected
Concentration Without Effect

RID Rules for the International Transport of Dangerous Goods by Rail SDS Safety Data Sheet

STP Wastewater Treatment Plant ThOD Theoretical

Oxygen Demand (TOD) TLM Average Tolerance Limit

VOC Volatile Organic Compounds CAS

Number CAS Number

N.O.S. Not otherwise specified

vPvB Very resistant and very bioaccumulative

ED Endocrine-disrupting properties

The classification has been made by means of a method of calculation in accordance with the classification rules contained in
Regulation No 1272/2008/EC.

Other data sources:

ECHA (European Chemicals Agency) Training
instructions:

Use in accordance with health and safety rules and procedures.

The information provided corresponds to our current knowledge and is intended to describe the product solely for the purpose of

SAFETY DATA SHEET**EU format in accordance with Commission Regulation (EU) 2020/878 Date of implementation: 4.05.2012****Update Date: 29.08.2025 Version: 5****HARDENER FOR ACRYLIC VARNISH 2:1 FAST
PROFESSIONAL****Page:14 from 14**

health, safety and environmental requirements. Therefore, it should not be understood as a guarantee of specific properties of the product.

Changes to the Charter compared to the previous version are marked with an asterisk (*).

Changes in the content of the sections:

1.2, 1.3, 2.1, 2.3, 3.2, 4.2, 4.3, 5.1, 5.3, 6.1, 6.2, 6.3, 7.1, 7.2, 8.1, 8.2, 9.1, 9.2, 10.5, 11.1, 11.2, 12.1, 12.2, 12.3, 12.6, 13.1, 14.6, 14.7, 16 and editorial changes.

Safety Data Sheet Number: 09-0P1L-0825-V5