IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND IDENTIFICATION OF THE ENTERPRISE

1.1. Product ID
2:1 VHS PROFESSIONAL UFI ACRYLIC VARNISH HARDENER:
CGV0-W0TW-200Q-GF75

1.2. Identified uses of the substance or mixture that are relevant and uses not recommended
Hardener (component B) for curing acrylic products. For professional use in car paint.

1.3. Safety Data Sheet Provider Details

Company RANAL Sp. z o.o.
Hive. Łódzka 3
42-240 Rudniki k. Częstochowy, PL

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Person responsible for the preparation of the safety data sheet: ranal@ranal.pl

Distributor : Ada Color Ltd. 176
Brezovsko Shose Street, 4003
Plovdiv, Bulgaria
Mobile: +359896663052
Tel: +35932940456
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web: adacolor-bg.com

1.4. Emergency phone number
+48 34 329 45 03 (from 8.00 to 15.00)
112 (general emergency number)

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: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

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

Flammable liquids, hazard category 2	H226
Acute toxicity (after inhalation exposure: dust, mist), category 4	H332
Skin sensitization, category 1	H317

Specific toxicity to target organs (single exposure) - Category 3. Narcotic effectsH336 Toxic effects on target organs - single exposure, category 3, respiratory irritation H335 For full list H and EUH statements, see Section 16.

Harmful effects related to physicochemical properties, effects on human health and the environment*: No further relevant information available.

2.2. Elements of the label

It contains methyl n-amyl
ketone.
Contains isocyanates.
It can cause an allergic reaction. Icons:

n

Phrases indicating the type of danger:
H226 Flammable liquid and vapors.
H317 It can 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.

Declarations indicating the conditions for safe use:
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 / eye protection / Face protection. P312 In case of poor self-esteem, consult a doctor.

List of EUH phrases:
EUH204 - Contains isocyanates. It can cause an allergic reaction.

2.3. Other hazards

Other hazards that do not give rise 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, generates gases or heat and overpressure: puncture of the container. The product polymerizes when the temperature rises: an increase in pressure can cause the closed container to burst.

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

The mixture does not contain any substance(s) included in the list drawn up pursuant to Art. 59 regl. 1 of REACH on the basis of endocrine disrupting properties or has not been identified as an endocrine disruptor according to the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in concentrations equal to or greater than 0,1 % by weight*.

SECTION 3: COMPOSITION / INGREDIENT INFORMATION

3.1. Substance
Not applicable.

3.2. Mixtures

Name	Product ID	%	Classification according to Regulation (EU) No 1272/2008 [CLP]
Hexamethylene-1,6-diisocyanate homopolymer	CAS Number: 28182-81-2 EU number: 931-274-8 106REACH-nr: 01-2119485796-17	55 – 65	Acute Tox. 4 (вдишване), H332, Skin Sens. 1, H317, STOT SE 3, H335
Butyl Acetate substance with occupational exposure limit value(s); substance with a Community limit value for workplace exposure*.	CAS Number: 123-86-4 EU Number: 204-658-1 Index number: 607-025-00-1 REACH nr: 01-2119485493-29	0 – 50 *	Flam. Liq. 3, H226, STOT SE 3, H336
It contains methyl n-amyl ketone. substance(s) with a limit value(s) of professional exposure (PL); substance with a Community limit value for workplace exposure*.	CAS Number: 110-43-0 EC Number: 203-767-1 Index number: 606-024-00-3 REACH nr: 01-2119902391-49	0 – 45 *	Flam. Liq. 3, H226, Acute Tox. 4 (Устно), H302, Acute Tox. 4 (Вдишване), H302
dibutyltin dilaurate	CAS Number: 77-58-7 EC Number: 201-039-8 Index number: 050-030-00-3 REACH nr: 01-2119496068-27	0 – 0,1	Skin Corr. 1C, H314, Eye Dam. 1, H318, Skin Sens. 1, H317, Muta. 2, H341, Repr. 1B, H360FD, STOT SE 1, H370, STOT RE 1, H372 Aquatic Acute 1, H400, Aquatic Chronic 1, H410
hexamethylene diisocyanate the substance has occupational exposure limit value(s)(s)* Note 10:	CAS Number: 822-06-0 EU Number: 212-485-8 Index number: 615-011-00-1 REACH nr: 01-2119457571-37	< 0.05 *	Acute Tox. 3 (inhalation), H331, Skin irritation. 2, H315, Eye Irrit. 2, H319, Resp. Sens. 1, H334 Skin Sens. 1, H317, STOT SE 3, H335

Specific concentration limits:		
Name	**Product ID**	**Specific concentration limits**
hexamethylene diisocyanate	CAS Number: 822-06-0 EU Number: 212-485-8 Index number: 615-011-00-1 REACH nr: 01-2119457571-37	(0.5 ≤C ≤ 100) Resp. Sens. 1, H334 (0.5 ≤C ≤ 100) Skin Sens. 1, H317

Note 10: The isocyanide concentration indicated is the percentage of mass of the free monomer calculated in terms of the total mass of the mixture.
For a full list of H and EUH statements, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

First aid-general measures: general advice. See Section 11 of the Safety Disclosure.
First aid - measures after inhalation: In case of breathing difficulties, move or take the injured person to fresh air and provide him with the opportunity to rest in a position that allows him to breathe freely. *
First aid - after skin contact: In case of skin contamination, immediately remove all contaminated clothing and wash the contaminated skin with plenty of soap and water. Rinse the skin under running water/shower. If you have skin irritation or rash: seek advice/seek medical attention. If skin irritation persists, consult a doctor. * Pierwsza pomoc - środki po kontakcie z oczami*:Rinse gently with water for a few minutes. Remove contact lenses, if any, and as far as possible. Continue rinsing. Call a doctor immediately. In case of possible contact with the eyes, rinse thoroughly immediately with water and seek medical attention. *
First aid - means 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: Fumes can cause drowsiness and dizziness.*
Skin contact symptoms/effects: prolonged or repeated contact can lead to dry skin. * Symptoms/effects on eye contact: may cause eye irritation. *

4.3. Instruction for any immediate medical assistance and specially necessary treatment of the victim
Symptomatic treatment.

SECTION 5: FIRE MEASURES

5.1. Fire extinguishing equipment
Suitable extinguishing agents: Dust, alcohol-resistant foam, carbon dioxide, water mist. Unsuitable extinguishing agents: Do not use a strong water jet.

5.2. Particular hazards arising from the substance or mixture
A fire can produce carbon monoxides, nitrogen oxides and other toxic gases*.

5.3. Tips for firefighters
Protection during firefighting*: Do not intervene without proper protective equipment. Self-contained, insulating breathing apparatus. Full protective clothing.

SECTION 6: MEASURES IN CASE OF ACCIDENTAL RELEASE INTO THE ENVIRONMENT

6.1. Personal Protective Equipment, Protective Equipment and Emergency Procedures

For persons who do not belong to the emergency staff
Remove ignition sources. Ensure sufficient ventilation of the room. Avoid direct and indirect contact with the released substance. Avoid contact with skin and eyes. For personal protective equipment, see section 8 of the Safety Data Sheet*

Aid providers
Do not undertake interventions without appropriate protective equipment. See Section 8 of the Safety Disclosure.

6.2. Environmental precautions
Avoid discharge into the environment. Do not allow entry into surface water or sewage system. Do not allow the product to enter groundwater, bodies of water or sewers, even in small quantities. *

6.3. Methods and materials to limit the spread of pollution and to dispose of pollution Prevent the spread of pollution: 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 protection - see Section 8 of the Safety Data Sheet Waste Treatment - see Section 13 of the Safety Data Sheet.

HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

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. Smoking is prohibited. Use only outdoors or in a well-ventilated area. Wear personal protective equipment. *
Hygiene recommendations: Wash contaminated clothing before reuse. Do not take contaminated protective clothing outside the workplace. Do not eat, drink or smoke when using the product. Wash your hands after each contact with the product. *

7.2. Conditions for safe storage, including information on incompatibilities
Technical measures: Ground/connect the container and receiving equipment. *

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

7.3. Specific end-use(s)
There is no further relevant information. *

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTIVE EQUIPMENT

8.1. Control parameters

National occupational exposure limits and biological limit values*.

hexamethylene diisocyanate (822-06-0)hexamethylene diisocyanate (822-06-0)	
Poland - Maximum permissible concentrations in the workplace	
Local name	Hexan-1,6-diyl diisocyanate
NDS (OEL TWA)	0.04 mg/m³
NDSCh (OEL STEL)	0.08 mg/m³
Attention	Skin (Labelling a substance with the designation 'skin' indicates that the absorption of the substance through the skin can be just as important as by inhalation exposure).
Normative reference	SG No. R. 2018 pos. 1286
Butyl Acetate (123-86-4)	
UE - Indicative Occupational Exposure Limit Value (IOEL)	
Local name	n-Butyl acetate
IOEL TWA [ppm]	50 ppm
IOEL STEL	723 mg/m³
IOEL STEL [ppm]	150 ppm
Normative reference	COMMISSION DIRECTIVE (EU) 2019/1831
Poland - Maximum permissible concentrations in the workplace	
Local name	N-Butyl Acetate
NDS (OEL TWA)	240 mg/m³
NDSCh (OEL STEL)	720 mg/m³
Normative reference	SG No. R. 2018 pos. 1286
methyln-n-amyl ketone (110-43-0)	
UE - Indicative Occupational Exposure Limit Value (IOEL)	
Local name	Heptan-2-one
IOEL TWA [ppm]	50 ppm
IOEL STEL	475 mg/m³
IOEL STEL [ppm]	100 ppm
Attention	Skin
Normative reference	COMMISSION DIRECTIVE 2000/39 / EC
Poland - Maximum permissible concentrations in the workplace	
Local name	Heptan-2-one
NDS (OEL TWA)	238 mg/m³
NDSCh (OEL STEL)	475 mg/m³
Normative reference	SG No. R. 2018 pos. 1286

Recommended monitoring procedures *
Observation method: EN 482. Workplace Exposure - General requirements for characterizing procedures for measuring chemical agents.

DNEL и PNEC*:

hexamethylene diisocyanate (822-06-0)hexamethylene diisocyanate (822-06-0)	
DNEL/DMEL (Employees)	
Acute - local effects, after inhalation	0.07 mg/m³

hexamethylene diisocyanate (822-06-0)hexamethylene diisocyanate (822-06-0)	
Long-term - local effects, after inhalation	0.035 mg/m³
NECP (STP)	
PNEC wastewater treatment plants	8.42 mg/l
Homopolymer hexamethylene-1,6-diisocyanate (28182-81-2)	
DNEL/DMEL (Employees)	
Acute - local effects, after inhalation	1 mg/m³
Long-term - local effects, after inhalation	0.5 mg/m³
PNEC (Water)	
PNEC aqua (fresh water)	0.127 mg/l
PNEC aqua (sea water)	0.0127 mg/l
PNEC aqua (fresh periodic water)	1.27 mg/l
PNEC (Sediment)	
PNEC Sediment (Fresh Water)	266701 mg/kg dry weight
PNEC sediment (seawater)	26670 mg/kg dry weight
PNEC (Zemia)	
PNEC Pochvata	53183 mg/kg dry weight
NECP (STP)	
PNEC wastewater treatment plants	88 mg/l
Butyl Acetate (123-86-4)	
PNEC (Water)	
PNEC aqua (fresh water)	0.18 mg/l
PNEC aqua (sea water)	0.018 mg/l
PNEC aqua (fresh periodic water)	0.36 mg/l
PNEC (Sediment)	
PNEC Sediment (Fresh Water)	0.981 mg/kg dry weight
PNEC sediment (seawater)	0.0981 mg/kg dry weight
PNEC (Zemia)	
PNEC Pochvata	0.0903 mg/kg dry weight
NECP (STP)	
PNEC wastewater treatment plants	35.6 mg/l
methyln-n-amyl ketone (110-43-0)	
DNEL/DMEL (Employees)	
Acute - impact on the entire system, after inhalation	1516 mg/m³
Long-term - systemic effects on skin contact	54.27 mg/kg body weight/day
Long-term - systemic effects, after inhalation	394.25 mg/m³
DNEL/DMEL (Total Population)	
Long-term - systemic effects, after ingestion	23.32 mg/kg body weight/day
Long-term - systemic effects, after inhalation	84.31 mg/m³
Long-term - systemic effects on skin contact	23.32 mg/kg body weight/day
PNEC (Water)	
PNEC aqua (fresh water)	0.0982 mg/l
PNEC aqua (sea water)	0.00982 mg/l
PNEC aqua (fresh periodic water)	0.982 mg/l
PNEC (Sediment)	
PNEC Sediment (Fresh Water)	1.89 mg/kg dry weight
PNEC sediment (seawater)	0.189 mg/kg dry weight

hexamethylene diisocyanate (822-06-0)hexamethylene diisocyanate (822-06-0)	
PNEC (Zemia)	
PNEC Pochvata	0.321 mg/kg dry weight
NECP (STP)	
PNEC wastewater treatment plants	12.5 mg/l
Dibutyltin Dilaurate (77-58-7)	
DNEL/DMEL (Employees)	
Acute - systemic effects, in contact with the skin	2.08 mg/kg body weight/day
Acute - impact on the entire system, after inhalation	0.059 mg/m³
Long-term - systemic effects on skin contact	0.43 mg/kg body weight/day
Long-term - systemic effects, after inhalation	0.02 mg/m³
DNEL/DMEL (Total Population)	
Acute - systemic effects, in contact with the skin	0.5 mg/kg body weight/day
Acute - impact on the entire system, after inhalation	0.04 mg/m³
Acute - systemic effects, after ingestion	0.02 mg/kg body weight/day
Long-term - systemic effects, after ingestion	0.0031 mg/kg body weight/day
Long-term - systemic effects, after inhalation	0.0046 mg/m³
Long-term - systemic effects on skin contact	0.16 mg/kg body weight/day
PNEC (Water)	
PNEC aqua (fresh water)	0.000463 mg/l
PNEC aqua (sea water)	0.0000463 mg/l
PNEC aqua (fresh periodic water)	0.00463 mg/l
PNEC aqua (periodic, seawater)	0.00463 mg/l
PNEC (Sediment)	
PNEC Sediment (Fresh Water)	0.05 mg/kg dry weight
PNEC sediment (seawater)	0.005 mg/kg dry weight
PNEC (Zemia)	
PNEC Pochvata	0.0407 mg/kg dry weight
PNEC (oral)	
PNEC after ingestion (secondary poisoning)	0.2 mg/kg food
NECP (STP)	
PNEC wastewater treatment plants	100 mg/l

Management of risk groups
There is no further relevant information.

8.2. Exposure control

Appropriate technical control measures: Ensure good ventilation in the workplace.

Personal protective equipment symbols*:

Eye or face protection*:
Safety glasses. *

Skin and body protection:
Appropriate protective clothing (covered, impregnated fabrics).

Hand protection: Protective gloves. *

Airway protection:
Wear a suitable breathing apparatus in case of insufficient ventilation. *

Toplinni danger*:
There is no further relevant information.

Environmental Exposure Control:
Avoid discharge into the environment. *

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on the main physical and chemical Properties*

Physical conditionliquid	
Colour	achromatic
Smell:	Characteristic*
Odor threshold:	No data available
Melting temperature	Not applicable
Curing temperature	unavailable
Boiling point	126-160°C
Flammability of materials:	Not applicable
Explosive properties:	No data available
Explosion limits:	lower%: 0.9 0%, upper: 9.5 0% (hexamethylene-1,6-diisocyanate)
Flash temperature:	32°C
Self-ignition temperature:	approx. 450°C*
Decomposition temperature	No data available
pH	Not applicable
Kinematic viscosity	unavailable
Solubility (in water)	Slightly soluble *
Partition coefficient n-octanol/water (Log Pow)	unavailable* **Pressure**
	около 14 hPa (20°C)
Steam pressure in temp. 50°C*	unavailable
Density	about 1.0 g / cm3 (20°C)
Relative density:	unavailable
The relative density of vapor at temp. 20°C *	unavailable **Particle**
characteristics *	Not applicable

9.2. Other information
There is no data.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
The product is not reactive under normal conditions.

10.2. Chemical stability
The product is not reactive under normal conditions.

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, generates gases or heat and overpressure: puncture of the container. The product polymerizes when the temperature rises: an increase in pressure can cause the closed container to burst. *

10.4. Conditions to be avoided
Ignition source protection. Avoid the accumulation of electrostatic charge (e.g. electrostatic charge). by grounding). Protect from sunlight. Avoid high temperatures. Protect from moisture. Keep from frost. *

10.5. Incompatible materials
Avoid contact with: strong acids, strong bases and strong oxidizing agents. Do not allow contact with water. *

10.6. Dangerous products in case of decay
As a result of thermal decomposition, carbon monoxide, nitrogen oxides and other toxic gases are formed. *

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008*

Acute toxicity (oral)*: unclassified. Based on the available data, the classification criteria are not met. Acute toxicity (cutaneous)*: not classified (based on available data, classification criteria not met).

Acute toxicity (inhalation)*: harmful if inhaled.

Mixture	
ATE CLP (dust, mist)	1.5 mg/l/4h

hexamethylene diisocyanate (822-06-0)hexamethylene diisocyanate (822-06-0)	
LD50 by mouth, rat	710 mg/kg Source: NCIS; Toxic Substances Information Report
LD50 of the skin through the mouth, rat	> 7000 mg/kg masy ciała Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 leather, rabbit	599 mg/kg Source: NCIS; Toxic Substances Information Report
LC50 Rat Inhalation	0,124 мг / л air Animal: rat, Guideline: ОИСР Guideline 403 (Acute Inhalation Toxicity), Remarks on results: other:, 95% CL: 111-140
LC50 Inhalation - Rat (The Money)	0,24 mg/l Source: NCIS; Toxic Substances Information Report
Homopolymer hexamethylene-1,6-diisocyanate (28182-81-2)	
LD50 by mouth, rat	> 2500 mg/kg body weight Animals: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 of the skin through the mouth, rat	> 2000 мг/кг телесно тегло Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 leather, rabbit	> 2000 mg/kg body weight Animal: rabbit, Guideline: other:
Butyl Acetate (123-86-4)	
LD50 by mouth, rat	12.2 ml/kg Source: ECHA
LC50 Inhalation - Rat (The Money)	> 4.9 mg/l Source: ECHA
methyln-n-amyl ketone (110-43-0)	
LD50 by mouth, rat	≈ 1600 mg/kg body weight Animal: rat, Notes on results: other:
LD50 of the skin through the mouth, rat	> 2000 mg/kg body weight of animals: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B. 3 (Acute Toxicity (Dermal))
LC50 Rat Inhalation	> 16,7 мг / л air Animal: rat, Guideline: ОИСР Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method Б. 2 (Acute Toxicity (Inhalation))
LC50 Inhalation - Rat (The Money)	> 16.7 mg/L source: echo
Dibutyltin Dilaurate (77-58-7)	
LD50 by mouth, rat	2071 mg/kg body weight of animals: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other:, 95% CL: 1207-5106
LD50 of the skin through the mouth, rat	> 2000 mg/kg body weight of animals: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B. 3 (Acute Toxicity (Dermal))
LC50 Rat Inhalation	15354 mg/kg

Corrosive/irritating effect on the skin: unclassified (based on the available data, the classification criteria are not met).

Butyl Acetate (123-86-4)	
pH	6.2 темп.: 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)	
pH	6.2 темп.: 20 °C Concentration: 5.3 g/L

Respiratory or skin sensitization: May cause an allergic skin reaction. *
Mutagenic effect on germ cells: not classified (based on available data, classification criteria not met).
Carcinogenic effect: unclassified (based on available data, classification criteria not met).
Harmful effects on reproductive function: not classified (based on available data, the classification criteria are not met).
Toxicity of target organs with single exposure: May cause drowsiness or dizziness. It can cause irritation of the respiratory tract. *

hexamethylene diisocyanate (822-06-0)hexamethylene diisocyanate (822-06-0)	
Toxicity of target organs with single exposure	It can cause irritation of the respiratory tract.
Homopolymer hexamethylene-1,6-diisocyanate (28182-81-2)	
Toxicity of target organs with single exposure	It can cause irritation of the respiratory tract.
Butyl Acetate (123-86-4)	
Toxicity of target organs with single exposure	It can cause drowsiness or dizziness.
Dibutyltin Dilaurate (77-58-7)	
Toxicity of target organs with single exposure	It causes organ damage.

Toxic effects on the target organs-re-exposure: not classified (based on available data, classification criteria not met).

Butyl Acetate (123-86-4)	
LOAEL (oral, rat, 90 days)	500 mg / kg body weight Animal: rats, Guideline: EPA OTS 798.2650 (90-Day Oral Toxicity in Rodents)
NOAEL (oral, rat, 90 days)	125 mg/kg body weight Animal: rat, Guidelines: EPA OTS 798.2650 (90-Day Oral Toxicity in Rodents)
Dibutyltin Dilaurate (77-58-7)	
Specific organ toxicity - repeated exposure	This causes damage to the organs (immune system) with prolonged or repeated exposure.

Hazard caused by striving: not classified (based on available data, classification criteria not met).

Butyl Acetate (123-86-4)	
Kinematic viscosity	0,83 mm²/s Temperature: "20°C" Parameter: "kinematic viscosity (in mm²/s)
methyln-n-amyl ketone (110-43-0)	
Kinematic viscosity	0.979 mm²/s Temperature: "20°C" Parameter: "kinematic viscosity (in mm²/s)

11.2. Information on other hazards*
There is no further relevant information.

SECTION 12: ENVIRONMENTAL INFORMATION

12.1. Toxicity
Poses a hazard to the aquatic environment, short-term (acute): Unclassified (based on available data, the classification criteria are not met).
Hazard to the aquatic environment, long-term (chronic): not classified (based on the available data, the classification criteria are not met).
It is not subject to rapid degradation.

hexamethylene diisocyanate (822-06-0)hexamethylene diisocyanate (822-06-0)	
LC50 - Pisces [1]	≥ 82.8 mg/l Source: ECHA
EC50 72h - Algae [1]	> 77.4 mg/l Source: ECHA
Homopolymer hexamethylene-1,6-diisocyanate (28182-81-2)	
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): 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 Test organisms (видове): Pseudokirchneriella subcapitata (previous names: 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 d

hexamethylene diisocyanate (822-06-0)hexamethylene diisocyanate (822-06-0)	
methyln-n-amyl ketone (110-43-0)	
LC50 - Pisces [1]	131 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustaceans [1]	> 90.1 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	98.2 mg/l Test organisms (species): Pseudokirchneriella subcapitata (предишни наименования: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	75.5 mg/l Test organisms (species): Pseudokirchneriella subcapitata (предишни наименования: Raphidocelis subcapitata, Selenastrum capricornutum)
Dibutyltin Dilaurate (77-58-7)	
LC50 - Pisces [1]	21,2 mg/l Test organisms (species): Danio rerio (former name: Brachydanio rerio)
EC50 - Crustaceans [1]	1.7 - 3.4 mg/l Test organisms (species): Daphnia magna
EC50 - Crustaceans [2].	< 463 µg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 1 mg/l Test organisms (species): Desmodesmus subspicatus (former name: Scenedesmus subspicatus)

12.2. Stability and degradability
There is no further relevant information. *

12.3. The ability to bioaccumulate

hexamethylene diisocyanate (822-06-0)hexamethylene diisocyanate (822-06-0)	
Partition coefficient n-octanol/water (Log Pow)	1.08 Source: ICSC
Butyl Acetate (123-86-4)	
Partition coefficient n-octanol/water (Log Pow)	1,78 Source: HSDB
methyln-n-amyl ketone (110-43-0)	
Partition coefficient n-octanol/water (Log Pow)	2.26 Source: ECHA
Dibutyltin Dilaurate (77-58-7)	
Partition coefficient n-octanol/water (Log Pow)	4.44 Source: ECHA

12.4. Mobility in the soil

hexamethylene diisocyanate (822-06-0)hexamethylene diisocyanate (822-06-0)	
Mobility in the soil	5 – 286 Source: ECHA

12.5. Results of the evaluation of PBT and vPvB values.
There is no data.

12.6. Values that disrupt the functions of the hormonal system *
There is no data.

12.7. Other adverse effects
There is no data.

SECTION 13: WASTE DISPOSAL

13.1. Methods of disposal of product waste:

Dispose of in compliance with relevant local and official waste laws – see Section 15 of the Statutes.

Product residues:
Waste code: 08 05 01 * isocyanate waste. Do not dispose of in the drain. Do not pile up with household waste. Product residues in the package must be carefully removed and cured using an appropriate component a (waste) of the kit. The cured product is not a hazardous waste.
NOTE: harden residues in small portions away from flammable foods. During a chemical reaction, a large amount of heat is released!

The packaging is contaminated:
Packaging containing uncured product residues is hazardous waste.
Waste code: 15 01 10* Packaging containing residues of or contaminated with hazardous substances (e.g. plant protection products of toxicity classes I and II - very toxic and toxic) *

Do not pile up with household waste. Hand over contaminated packaging to organisations authorised by the competent authority to collect, recover or dispose of waste.

SECTION 14: TRANSPORT INFORMATION

14.1. UN Number or ID Number*
1866

14.2. Correct name to transport UN
RESIN IN SOLUTION, FLAMMABLE

Description of the transport document

ADR	UN 1866 RESIN, SOLUTION, 3, III, (D/E)
IMDG	UN 1866 RESIN SOLUTION, 3, III (32°C c.c.)
IATA	UN 1866 Resin solution, 3, III

14.3. Transport hazard class
3

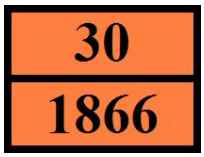
*

14.4. Packing group
III

14.5. Hazard to the environment
Not.
Marine pollutants: No*.

14.6. Special precautions for consumers

Road:

Classification code (ADR):	F1
Limited Quantities (ADR):	5l
Special Packaging Regulations (ADR):	PP1
Special provisions for packaging in general (ADR):	MP19
Transport category (ADR):	3
Special provisions for transportation - parts of the shipment:	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
Nr EmS (Fire):	F-E
No EmS (Разлив):	S-E
Load Distribution Category (IMDG):	But

Air transport:
No data available.

14.7. Bulk maritime transport in accordance with IMO instruments*
Not applicable.

SECTION 15: INFORMATION ON REGULATIONS

15.1. Regulations on safety, health and environmental legislation specific to the substance or mixture

EU regulations *
• Annex XVII of REACH (restriction conditions): Does not contain substances listed in Annex XVII of REACH (restriction conditions).

- Annex XIV of REACH (Authorisation List): Does not contain a substance listed in Annex XIV of REACH (Authorisation List).
- REACH Candidate List (SVHC): Does not contain substances included in the REACH Candidate List.
- PIC Regulation (EU 649/2012, agreement with prior information): Contains substance(s) listed by the PIC (EU Regulation 649/2012 on the export and import of hazardous chemicals): dibutyltine dilaurate (77-58-7).
- Persistent Organic Pollutants Regulation (EU 2019/1021, Persistent Organic Pollutants): Does not contain substances included in the list of persistent organic pollutants (EU Regulation 2019/1021, Persistent Organic Pollutants).
- Ozone depletion Regulation (EU 1005/2009): Does not contain substances included in the list of substances that deplete the ozone layer (EU Regulation 1005/2009 on substances that deplete the ozone layer).
- Regulation on explosives precursors (EU 2019/1148): Does not contain substances on the list of explosives precursors (EU Regulation 2019/1148 on 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 on the manufacture and placing on the market of certain substances used for the illicit manufacture of narcotic drugs and psychotropic substances).

Other provisions - Poland*:
- Safety data sheet 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 Council Regulations (EEC) No 793/93 and (EEC) No 1488/94, as well as Council Directive 76/769/EEC and Directives 91/155/EEC, Commission 93/67/EEC, 93/105/EC and 2000/21/EC.
- Regulation of the European Parliament and of the Council (EC) No 1272/2008 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 Treaty: Government Statement of 15 February 2021 on the entry into force of the amendments to Annexes A and B to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), drawn up at Geneva on 30 September 1957 (OJ 2021, item 874).

15.2. Chemical Safety Assessment
It's not done.

SECTION 16: FRIEND INFORMATION
Safety data sheet EU format in accordance with Commission Regulation (EU) 2020/878.

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	Assessment of acute toxicity
BCF	Factor on BCF bioconcentration
BLV	Quantity limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD).
DMEL	Derived level causing minimal change
DNEL	Obtained level of change
WE Number	European Community number
EC50	Average effective concentration
IN	European standard
IARC	International Agency for Research on Cancer
IATA	International Air Carriers Association.
IMDG	International maritime transport of dangerous goods
LC50	Concentration of the substance causing the death of 50 % of the test population
LD50	A dose causing the death of 50% of the population of test organisms
LOAEL	The lowest level at which harmful changes are observed
NOAEC	Concentration at which no adverse changes are observed
NOAEL	Dose level at which no adverse change is observed
NOEC	The highest concentration at which no harmful effects of changes are observed*
OECD	Organisation for Economic Co-operation and Development
OIL	Acceptable amount of professional exposure
PBT	Persistent substance with bioaccumulative ability and toxic

Abbreviations and acronyms:	
PNEC	the intended concentration that does not cause changes in the environment
RID	Rules for the International Carriage of Dangerous Goods by Rail.
SDS	Safety Data Sheet
STP	Wastewater treatment plant
ThOD	Theoretical Oxygen Demand (TPK) *
TLM	Average tolerance limit
LZO	Volatile organic compounds:
CAS Number	CAS Number
N.O.S.	Not otherwise defined
vPvB	Substances very resistant and very bioaccumulative.
AND	Endocrine disruptive properties

Other data sources:
ECHA European Chemicals Agency

Study Guidelines: Study Guidelines:
Use in accordance with health and safety rules and procedures.

Full sound of phrases H i EUH:	
Acute Tox. 3 (inhalation)	Acute toxicity (after inhalation exposure), category 3
Acute Tox. 4 (oral)	Acute toxicity (digestive tract), category 4
Acute Tox. 4 (inhalation)	Acute toxicity (after inhalation exposure), category 4
Aquatic Acute 1	Hazard to the aquatic environment – acute hazard, category 1
Aquatic Chronic 1	Hazard to the aquatic environment - Chronic hazard, category 1
EUH204	Contains isocyanates. It can cause an allergic reaction.
Eye Dam. 1	Serious eye damage / eye irritation, category 2.
Eye Irrit. 2	Serious eye damage / eye irritation, category 2.
Flam. Liq. 3	Flammable liquids, hazard category 2
H226	Flammable liquid and vapors.
H302	Harmful if swallowed.
H314	It causes severe skin burns and eye damage.
H315	It causes skin irritation.
H317	It can cause an allergic skin reaction.
H318	Cause serious eye attention.
H319	Irritating effect of the eyes
H331	Toxic by inhalation.
H332	Harmful by inhalation.
H334	This can cause allergy or asthma symptoms or difficulty breathing after inhalation.
H335	It can cause irritation of the respiratory tract.
H336	It can cause drowsiness or dizziness.
H341	It is supposed to cause genetic defects.
H360FD	This can harm fertility. It can be harmful to the child in the mother's womb.
H370	It causes organ damage.
H372	Causes organ damage with prolonged or repeated exposure.
H400	Highly toxic to aquatic organisms.
H410	Highly toxic to aquatic organisms with long-term effects.
Muta. 2	Mutagenic action on germ cells, category 2
Repr. 1B	Harmful effects on reproductive function, category 1 episode
Resp. Sens. 1	Respiratory sensitizing effect, category 1

Full sound of phrases H i EUH:	
Skin Corr. 1C	Corrosion/irritation of the skin, category 1, subcategory 1C
Skin Irrit. 2	Corrosive effect/skin irritation, category 2.
Skin Sens. 1	Skin sensitization, category 1
STOT RE 1	Specific toxicity to target organs (exposure) recurrent)-Category 2.
STOT SE 1	Specific toxicity to target organs (single exposure) - Category 3.
STOT SE 3	Toxic effects on target organs - single exposure, category 3, respiratory irritation

Classification and procedure used to determine the classification of the mixture in accordance with Regulation (EC) No 1272/2008[CLP]:		
Flam. Liq. 3	H226	Based on research results
Acute Tox. 4 (inhalation: dust, mist)	H332	Calculation method.
Skin Sens. 1	H317	Calculation method.
STOT SE 3	H336	Calculation method.
STOT SE 3	H335	Calculation method.

Changes in the map compared to the previous version:
Section Update:
9: Change of title wording of point 9.1: Information on basic physical and chemical properties
11: Reformulation of the title of subsection 11.1: Information on hazard classes as defined in Regulation (EU)
No 1272/2008, subsection 11.2 added. Information about other hazards
12: New Subsection 12.6: Endocrine disrupting properties.
14: Reformulation of subsection 14.1: UN number or identification number; Reformulation of Subsection 14.7: Maritime transport in bulk in accordance with IMO instruments.

Changes from the previous safety card:
1.1, 2.1, 2.2, 2.3, 3.2, 4.1, 4.2, 4.3, 5.1, 5.2, 5.3, 6.1, 6.2, 6.3, 7.1, 7.2, 7.3, 8.1, 8.2, 9.1, 10.3, 10.4, 10.5, 10.6, 11.1, 11.2, 12.1, 12.2, 12.3, 12.4, 12.6, 12.7, 13.1, 14.1, 14.2, 14.3, 14.5, 14.6, 14.7, 15.1, 16.
General update.

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