SECTION 1: SUBSTANCE/MIXTURE IDENTIFICATION AND MANUFACTURER/SUPPLIER IDENTIFICATION

1.1. Product identification
FADE-OUT THINNER
UFI: 9WV0-F08V-M006-T54G *

1.2. Relevant identified uses of the substance or mixture and uses advised against
A special thinner for reducing colour difference during car refinishing. For professional use in car refinish.

1.3 Data of the safety data sheet supplier

Przedsiębiorstwo RANAL Sp. z o.o.
Ul. Łódzka 3
42-240 Rudniki k. Częstochowy, PL

Tel.: +48 34 329 45 03
Fax: +48 34 320 12 16
Registration number 000029202

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

1.4. Emergency telephone
+48 34 329 45 03 (8.00 - 15.00)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
The mixture was classified as hazardous according to the regulations in force - see section 15 of the Safety Data Sheet.

Classification 1272/2008/EC*:
Flammable liquids, category 2 H225
Acute toxicity (after inhalation: dust, mist), category 4 H332
Serious eye damage/eye irritation, category 2 H319
Carcinogenicity, Category 2 H351
Reproduction toxicity, category 2 H361d.
Specific Target Organ Toxicity - single exposure, category 3, narcotic effect H336

Full text of H - and EUH phrases: see section 16.*

2.2. Label elements

Contains:
Toluene
Methyl isobutyl ketone.

Pictograms:

GHS02 GHS07 GHS08*

Signal word: **Danger**.

Hazard statements (CLP)*:
H225 Highly flammable liquid and vapour.
H319 Causes eye irritation.
H332 Harmful if inhaled
H336 May cause drowsiness or dizziness.
H351* Suspected of causing cancer.
H361d Suspected of damaging the unborn child.

Precautionary statements (CLP)*:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves /protective clothing /eye protection /face protection.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.

2.3. Other hazards

Does not contain PBT/vPvB substances ≥ 0.1% assessed in accordance with Annex XIII of REACH.*

The mixture does not contain any substance(s) included in the list established in accordance with Art. 59 sec. 1 of the REACH Regulation due to endocrine disrupting properties or is not identified as endocrine disrupting 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 % by weight. *

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Not applicable.

3.2. Mixtures

Name	Product identification	%	Classification according to the regulation (EC) no 1272/2008 [CLP]
Butyl acetate the substance has an occupational exposure limit(s) (PL); substance with a Community-wide occupational exposure limit value *	CAS number: 123-86-4 EC number: 204-658-1 Index number: 607-025-00-1 REACH: 01-2119485493-29	20 – 30	Flam. Liq. 3, H226; STOT SE 3, H336
1-Methoxy-2-propyl acetate the substance has an occupational exposure limit(s) (PL); substance with a Community-wide occupational exposure limit value *	CAS number: 108-65-6 EC number: 203-603-9 Index number: 607-195-00-7 REACH: 01-2119475791-29	20 – 30	Flam. Liq. 3, H226
Methyl isobutyl ketone the substance has an occupational exposure limit(s) (PL); substance with a Community-wide occupational exposure limit value *	CAS number: 108-10-1 EC number: 203-550-1 Index number: 606-004-00-4 REACH: 01-2119473980-30	8 – 18	Flam. Liq. 2, H225; Acute Tox. 4 (Inhalation), H332 ; Eye Irrit. 2, H319; Carc. 2, H351; STOT SE 3, H336
Cyclohexanone the substance has an occupational exposure limit(s) (PL); substance with a Community-wide occupational exposure limit value *	CAS number: 108-94-1 EC number: 203-631-1 Index number: 606-010-00-7 REACH: 01-2119453616-35	8 – 18	Flam. Liq. 3, H226; Acute Tox. 4 (Inhalation), H332
Toluene the substance has an occupational exposure limit(s) (PL); substance with a Community-wide occupational exposure limit value *	CAS number: 108-88-3 EC number: 203-625-9 Index number: 601-021-00-3 REACH: 01-2119471310-51	< 9	Flam. Liq. 2, H225; Skin Irrit. 2, H315; Repr. 2, H361d; STOT SE 3, H336; STOT RE 2, H373; Asp. Tox. 1, H304

Full text of hazard statements provided in section 16 of the Sheet.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures
General information: See section 11 of the Material Safety Data Sheet.

Airways: If difficulties in breathing occur, remove the victim to fresh air and keep at rest in a position comfortable for breathing.*
Skin: In case of skin contamination, immediately remove all contaminated clothing and wash contaminated skin with plenty of soap and water. Rinse skin with water/or shower. If skin irritation or rash occurs: Get medical advice/attention. If skin irritation persists, consult a doctor.*
Eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a doctor. In the case of contact with eyes, immediately rinse with plenty of water and get medical advice. *
Alimentary tract: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a doctor. *

4.2 Most important symptoms both acute and delayed
Vapours may cause drowsiness and dizziness.
Prolonged or repeated contact may cause skin dryness*.
May cause eye irritation*.

4.3 Indications of any immediate medical attention and special treatment needed
Symptomatic treatment.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media
Extinguishing powder, foam resistant to alcohol, carbon dioxide, water mist.
Do not use strong jets of water*.

5.2 Special hazards arising from the substance or mixture
As a result of a fire, carbon monoxide and other toxic gases may be generated.*

5.3 Advice for fire fighters
Do not intervene without appropriate protective equipment. Self-contained, breathing apparatus. Compete protective clothing. *

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency measures

For personnel non taking part in emergency procedures:
Eliminate ignition sources. Provide sufficient ventilation of the room. Avoid direct and indirect* contact with the released substance. Avoid contact with skin and eyes. Personal protection measures – see section 8 of the Sheet.

For personnel taking part in emergency procedures:
Do not intervene without appropriate protective equipment. See section 8.*

6.2. Environmental precautions
Avoid release to the environment. Prevent from entering surface water and sewage system. Do not allow the product to enter groundwater, water reservoirs or sewage systems, even in small quantities.*

6.3. Methods and materials for containment and cleaning up
Cover the spilled product with a non-combustible material such as sand, earth, vermiculite. Collect the product mechanically.*

6.4. Reference to other sections
Personal protection measures – see section 8 of the Sheet. Disposal considerations – see section 13 of the Sheet.

SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1. Precautions for safe handling

Precautions for safe handling*:
Provide good ventilation of the workplace. Keep away from heat sources, hot surfaces, sources of sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Wear personal protection measures.

Hygiene recommendations*:
Wash contaminated clothes before using them again. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink and smoke when using the product. Wash hands after each contact with the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures*:
Ground/bond container and receiving equipment.

Storage conditions*:
Store in a well-ventilated place. Keep cool. Keep container tightly closed.

7.3 Special end use (s)
No further data available.*

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES

8.1. Control parameters

National values of the highest permissible concentrations in the work environment and biological limit values*:

Toluene (108-88-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Toluene
IOEL TWA [ppm]	50 ppm
IOEL STEL	384 mg/m³
IOEL STEL [ppm]	100 ppm
Warning	Skin
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
Poland- The highest permissible concentration at the workplace	
Local name	Toluene
NDS (OEL TWA)	100 mg/m³
NDSCh (OEL STEL)	200 mg/m³
Regulatory reference	Official Journal 2018 item 1286
Butyl acetate (123-86-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	n-Butyl acetate
IOEL TWA [ppm]	50 ppm
IOEL STEL	723 mg/m³
IOEL STEL [ppm]	150 ppm
Regulatory reference	COMMISSION DIRECTIVE-EU) 2019/ 1831
Poland- The highest permissible concentration at the workplace	
Local name	n-butyl acetate

NDS (OEL TWA)	240 mg/m³
NDSCh (OEL STEL)	720 mg/m³
Regulatory reference	Official Journal 2018 item 1286
1-Methoxy-2-propyl acetate (108-65-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-Methoxy-1-methylethylacetate
IOEL TWA [ppm]	50 ppm
IOEL STEL	550 mg/m³
IOEL STEL [ppm]	100 ppm
Warning	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Poland- The highest permissible concentration at the workplace	
Local name	2-methoxy-1-methylethyl acetate
NDS (OEL TWA)	260 mg/m³
NDSCh (OEL STEL)	520 mg/m³
Regulatory reference	Official Journal 2018 item 1286
Methyl isobutyl ketone (108-10-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	4-Methylpentan-2-one
IOEL TWA [ppm]	20 ppm
IOEL STEL	208 mg/m³
IOEL STEL [ppm]	50 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Poland- The highest permissible concentration at the workplace	
Local name	4-Methylpentan-2-one (methylisobutylketone, hexone)
NDS (OEL TWA)	83 mg/m³
NDSCh (OEL STEL)	200 mg/m³
Regulatory reference	Official Journal 2018 item 1286
Cyclohexanone (108-94-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Cyclohexanone
IOEL TWA [ppm]	10 ppm
IOEL STEL	81.6 mg/m³
IOEL STEL [ppm]	20 ppm
Warning	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Poland- The highest permissible concentration at the workplace	
Local name	Cyclohexanone
NDS (OEL TWA)	40 mg/m³
NDSCh (OEL STEL)	80 mg/m³
Warning	Skin (Labelling the substance with the notation "skin" means that the absorption of the substance through the skin may be just as important as for exposure through inhalation).
Regulatory reference	Official Journal 2018 item 1286

Monitoring method*:
EN 482. Exposure at workplaces– general requirements for the characteristics of chemical agents measurement procedures.
Air pollutants formation*:
No further data available.

DNEL and PNEC*:

Butyl acetate (123-86-4)	
PNEC (Water)	
PNEC (freshwater)	0.18 mg/l

PNEC (sea water)	0.018 mg/l
PNEC aqua (intermittent, freshwater)	0.36 mg/l
PNEC (Sediments)	
PNEC sediments (freshwater)	0.981 mg/kg of dry mass
PNEC sediments (sea water)	0.0981 mg/kg of dry mass
PNEC (Soil)	
PNEC Soil	0.0903 mg/kg of dry mass
PNEC (STP)	
PNEC Sewage Treatment Plant	35.6 mg/l
1-Methoxy-2-propyl acetate (108-65-6)	
DNEL/DMEL (Workers)	
Acute - local effects after inhalation	550 mg/m³
Long-term - systemic effects, in contact with skin	796 mg/kg body weight /day
Long - term systemic effects after inhalation	275 mg/m³
DNEL/ DMEL (General population)	
Long - term systemic effects after ingestion	36 mg/kg body weight /day
Long - term systemic effects after inhalation	33 mg/m³
Long-term - systemic effects, in contact with skin	320 mg/kg body weight /day
Long - term local effects after inhalation	33 mg/m³
PNEC (Water)	
PNEC (freshwater)	0.635 mg/l
PNEC (sea water)	0.0635 mg/l
PNEC aqua (intermittent, freshwater)	6.35 mg/l
PNEC (Sediments)	
PNEC sediments (freshwater)	3.29 mg/kg of dry mass
PNEC sediments (sea water)	0.329 mg/kg of dry mass
PNEC (Soil)	
PNEC Soil	0.29 mg/kg of dry mass
PNEC (STP)	
PNEC Sewage Treatment Plant	100 mg/l
Methyl isobutyl ketone (108-10-1)	
DNEL/DMEL (Workers)	
Acute - systemic effects after inhalation	208 mg/m³
Acute - local effects after inhalation	208 mg/m³
Long-term - systemic effects, in contact with skin	11.8 mg/kg body weight /day
Long - term systemic effects after inhalation	83 mg/m³
Long - term local effects after inhalation	83 mg/m³
DNEL/ DMEL (General population)	
Acute - systemic effects after inhalation	155.2 mg/m³
Acute - local effects after inhalation	155.2 mg/m³
Long - term systemic effects after ingestion	4.2 mg/kg body weight /day
Long - term systemic effects after inhalation	14.7 mg/m³
Long-term - systemic effects, in contact with skin	4.2 mg/kg body weight /day
Long - term local effects after inhalation	14.7 mg/m³
PNEC (Water)	
PNEC (freshwater)	0.6 mg/l
PNEC (sea water)	0.06 mg/l
PNEC aqua (intermittent, freshwater)	1.5 mg/l
PNEC (Sediments)	
PNEC sediments (freshwater)	8.27 mg/kg of dry mass

PNEC sediments (sea water)	0.83 mg/kg of dry mass
PNEC (Soil)	
PNEC Soil	1.3 mg/kg of dry mass
PNEC (STP)	
PNEC Sewage Treatment Plant	27.5 mg/l
Cyclohexanone (108-94-1)	
DNEL/DMEL (Workers)	
Acute - systemic effects, in contact with skin	4 mg/kg body weight /day
Acute - systemic effects after inhalation	80 mg/m³
Acute - local effects after inhalation	80 mg/m³
Long-term - systemic effects, in contact with skin	4 mg/kg body weight /day
Long - term systemic effects after inhalation	40 mg/m³
Long - term local effects after inhalation	40 mg/m³
DNEL/ DMEL (General population)	
Acute - systemic effects, in contact with skin	1 mg/kg body weight /day
Acute - systemic effects after inhalation	20 mg/m³
Acute - systemic effects after ingestion	1.5 mg/kg body weight /day
Acute - local effects after inhalation	40 mg/m³
Long - term systemic effects after ingestion	1.5 mg/kg body weight /day
Long - term systemic effects after inhalation	10 mg/m³
Long-term - systemic effects, in contact with skin	1 mg/kg body weight /day
Long - term local effects after inhalation	20 mg/m³
PNEC (Water)	
PNEC (freshwater)	0.0329 mg/l
PNEC (sea water)	0.00329 mg/l
PNEC aqua (intermittent, freshwater)	0.329 mg/l
PNEC (Sediments)	
PNEC sediments (freshwater)	0.249 mg/kg of dry mass
PNEC sediments (sea water)	0.0249 mg/kg of dry mass
PNEC (Soil)	
PNEC Soil	0.0304 mg/kg of dry mass
PNEC (STP)	
PNEC Sewage Treatment Plant	10 mg/l

Risk management*:
No further data available.

8.2 Exposure control

Technical control measures*:
Provide good ventilation of the workplace.

Symbols of personal protective equipment*:

Eyes protection:
Safety glasses.*

Skin and body protection*:
Proper protective clothes (coated impregnated fabrics).

Hands protection:
Protective gloves PN-EN 374-3 (viton, thickness 0.7 mm, penetration time >480 min. nitrile rubber, thickness 0.4 mm, penetration time >30 min.).

Respiratory protection:
In case of insufficient ventilation, wear suitable breathing apparatus.*
Gas mask with A1/ B1 type absorber (EN 14387).*

Environmental control:
Avoid release to the environment.*

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties*

Physical state	liquid
Colour	clear
Odour	strong, penetrating
Odour threshold	no data
Melting point	not applicable*
Freezing point	not available*
Boiling point	110-140°C
Flammability (solid, gas)	not applicable
Explosive properties	no data*
Explosion limits:	% bottom: 1.2 Vol %, top: 8.5 Vol %
Flash point	6°C
Auto ignition point	270°C
Breakdown point	no data
pH	not available*
Kinematic viscosity*	approx. 1.124 mm^2/s
Dynamic viscosity*	approx. 1 mPa.s
Solubility (in water)	poor
n-octanol/water partition coefficient (log Kow*)	not available*
Vapour pressure	13 hPa (20°C) (butyl acetate)
Vapour pressure at 50 °C*	not available
Density	approx. 0.89 g/cm^3 (20°C)
Relative density*	not available
Relative vapour density at 20°C*	not available
Particle characteristics*	not applicable

9.2 Other information
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 stable under normal conditions.

10.3. Possibility of hazardous reactions
Hazardous reactions under normal conditions of use unknown.*

10.4. Conditions to be avoided
Highly flammable product. Avoid contact with strong oxidants, peroxides, strong acids and bases. Avoid generation and accumulation of static electricity. Protect from sunlight and heat sources.

10.5. Incompatible materials
Avoid contact with large amounts of organic peroxides, strong acids and bases, as well as other strong oxidants.

10.6. Hazardous decomposition products
No hazardous decomposition product shall be formed under normal conditions of storage and use.*

Thermal decomposition may produce:
Carbon monoxide.
Other toxic gases.*

SECTION 11: TOXICOLOGICAL INFORMATION

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

Acute toxicity:
Oral: Not classified (based on available data the classification criteria are not met).*
Skin: Not classified (based on available data the classification criteria are not met).*
Inhalation: Harmful if inhaled.*

ATE CLP (dust, mist): 4.167 mg/l (4 h)*

Toluene (108-88-3)	
LD50 oral, rat	5580 mg/kg Source: ECHA
LD50 skin, rabbit	> 5000 mg/kg Source: ECHA
LC50 inhalation - rat (vapours)	> 20 mg/l Source: ECHA
Butyl acetate (123-86-4)	
LD50 oral, rat	12.2 ml/kg Source: ECHA
LC50 inhalation - rat (vapours)	> 4.9 mg/l Source: ECHA
1-Methoxy-2-propyl acetate (108-65-6)	
LD50, skin, rat	> 2000 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
Methyl isobutyl ketone (108-10-1)	
LD50 oral, rat	2080 mg/kg Source: ECHA
LD50 skin, rabbit	≥ 2000 mg/kg Source: ECHA
LC50 inhalation - rat (vapours)	11.6 mg/l Source: ECHA
Cyclohexanone (108-94-1)	
LD50 oral, rat	1890 mg/kg Source: ECHA
LD50 skin, rabbit	947 mg/kg Source: IFA GESTIS
LC50 inhalation - rat	> 6.2 mg/l air Animal: rat, Remarks on results: other:

Skin corrosion/irritation: Not classified (based on available data the classification criteria are not met).*

Toluene (108-88-3)	
pH	7 Source: chemicalbook
Butyl acetate (123-86-4)	
pH	6.2 Temp.: 20°C Concentration: 5.3 g/L

Serious eye damage/eye irritation: Causes serious eye irritation.*

Toluene (108-88-3)	
pH	7 Source: chemicalbook
Butyl acetate (123-86-4)	
pH	6.2 Temp.: 20 °C Concentration: 5.3 g/L

Allergic effect on airways or skin: The mixture is not classified as sensitizing. No data confirming the hazard class.
Mutagenic effect on germ cells: The mixture is not classified as mutagenic. No data confirming the hazard class.
Carcinogenicity: Suspected of causing cancer.*

Toluene (108-88-3)	
IARC Group	3 - Unclassifiable
Methyl isobutyl ketone (108-10-1)	
IARC Group	2B - May be carcinogenic to humans
Cyclohexanone (108-94-1)	
IARC Group	3 - Unclassifiable

Harmful effect on reproduction: Suspected of damaging the unborn child.*
Specific target organ toxicity – single exposure: May cause drowsiness or dizziness.*

Toluene (108-88-3)	
Specific target organ toxicity – single exposure:	May cause drowsiness or dizziness.
Butyl acetate (123-86-4)	
Specific target organ toxicity – single exposure:	May cause drowsiness or dizziness.
Methyl isobutyl ketone (108-10-1)	
Specific target organ toxicity – single exposure:	May cause drowsiness or dizziness.

Specific target organ toxicity – repeated exposure: Not classified (based on available data the classification criteria are not met).*

Toluene (108-88-3)	
Specific target organ toxicity – repeated exposure:	May cause damage to organs through prolonged or repeated exposure.
Butyl acetate (123-86-4)	
LOAEL (oral, rat, 90 days)	500 mg/kg body weight Animal: rat, Guideline: EPA OTS 798.2650 (90-Day Oral Toxicity in Rodents)
NOAEL (oral, rat, 90 days)	125 mg/kg body weight Animal: rat, Guideline: EPA OTS 798.2650 (90-Day Oral Toxicity in Rodents)
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 Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (Skin, rat /rabbit, 90 days)	> 1000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
Methyl isobutyl ketone (108-10-1)	
LOAEL (oral, rat, 90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation, rat, vapour, 90 days)	4106 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
Cyclohexanone (108-94-1)	
NOAEL (oral, rat, 90 days)	143 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

Aspiration hazard: Not classified (based on available data the classification criteria are not met).*

mixture	
Kinematic viscosity	≈ 1.124 mm²/s
Butyl acetate (123-86-4)	
Kinematic viscosity	0.83 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'
Cyclohexanone (108-94-1)	
Kinematic viscosity	2.324 mm²/s

11.2 Information on other hazards*
No further data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Hazardous for the aquatic environment, short-time (acute)*: Not classified (based on available data the classification criteria are not met).
Hazardous to the aquatic environment, long-term (chronic)*: Not classified (based on available data the classification criteria are not met)
NOT rapidly degradable.*

Toluene (108-88-3)	
LC50 - Fish [1]	5.5 mg/l Source: ECHA
Butyl acetate (123-86-4)	
LC50 - Fish [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 (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	246 mg/l Test organisms (species): 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'
1-Methoxy-2-propyl acetate (108-65-6)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oryzias latipes
EC50 - Crustaceans [1]	> 500 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

NOEC for chronic toxicity to fish	47.5 mg/l Test organisms (species): Oryzias latipes Duration: '14 d'
Methyl isobutyl ketone (108-10-1)	
LC50 - Fish [1]	> 179 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustaceans [1]	> 200 mg/l Test organisms (species): Daphnia magna
Cyclohexanone (108-94-1)	
LC50 - Fish [1]	527 – 732 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustaceans [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2 Persistence and degradability
No further data available.*

12.3 Bioaccumulative potential

Toluene (108-88-3)	
n-octanol/water partition coefficient (Log Pow):	2.73 Source: HSDB
Butyl acetate (123-86-4)	
n-octanol/water partition coefficient (Log Pow):	1.78 Source: HSDB
Methyl isobutyl ketone (108-10-1)	
n-octanol/water partition coefficient (Log Pow):	1.31 Source: ChemIDPlus
Cyclohexanone (108-94-1)	
n-octanol/water partition coefficient (Log Pow):	0.81 Source: ICSC

12.4. Mobility in soil
No further data available.*

12.5 Results of PBT and vPvB assessment
No data.

12.6. Endocrine disrupting properties*
No further data available.

12.7. Other hazardous effects
No further data available.*

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Dispose of according to applicable local and official waste regulations – see section 15.

Product remains:
Waste code 07 01 04- other organic solvents, washing liquids and mother liquors*.
Do not discharge the product into the sewage system. Must not be disposed of with municipal waste. The remains of the product in the packaging should be carefully removed and allowed to dry completely (only in well-ventilated rooms).
ATTENTION: The remains should be dried only in well-ventilated rooms, away from flammable products.

Contaminated packaging:
Packaging containing unhardened product remains is hazardous waste.
Waste code: 15 01 10 - Packaging containing residues of or contaminated by dangerous substances (e.g. pesticides of I and II class of toxicity - very toxic and toxic)*.
Must not be disposed of with municipal waste. Contaminated container should be handed over to entities, which are authorized to collect, recover or dispose of wastes.

Additional information*:
Flammable vapours may accumulate in the container.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number or ID number*
1263

14.2. UN proper shipping name
ADR PAINT RELATED MATERIAL
IMDG* PAINT RELATED MATERIAL
IATA* PAINT RELATED MATERIAL

Description of the shipping document*:
ADR 1263 PAINT RELATED MATERIAL, 3, II, (D/E)
IMDG UN 1263 PAINT RELATED MATERIAL, 3, II (6°C c.c.)
IATA UN 1263 PAINT RELATED MATERIAL, 3, II

14.3. Transport hazard class (-es)
3

*

14.4. Packaging group
II

14.5. Environmental hazards
NO

14.6. Special precautions for users

Road transport*:

Classification code (ADR):	F1
Limited Quantities (ADR):	5 l
Special packing provisions (ADR):	PP1
Mixed Packing Regulations (ADR):	MP19
Transport category (ADR):	2
Orange Tiles:	33 1263
Tunnel restriction code (ADR):	D/E

Sea transport*:

Special provisions (IMDG):	163, 367
Limited quantities (IMDG)	5 L
Special packing provisions (IMDG):	PP1
EmS number (Fire):	F-E
EmS number (Spillage):	S-E
Cargo Stowage Category (IMDG):	B

Air transport*:
No data.

14.7. Sea transport in bulk in accordance with IMO instruments*
Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations / legislations specific for the substance or mixture

EU Provisions*:
Annex XVII to the REACH Regulation (restriction conditions): It does not contain substances listed in Annex XVII to the REACH Regulation (restriction conditions).
Annex XIV to the REACH Regulation (List of Authorizations): It does not contain substances listed in Annex XIV to the REACH Regulation (List of Authorizations).
REACH Candidate List (SVHC): Contains no substances listed on the REACH Candidate List.
PIC Regulation (EU 649/2012, Prior Informed Consent): It does not contain substances listed on the PIC list (EU Regulation 649/2012 on the export and import of dangerous chemicals).
POP Regulation (EU 2019/1021, Persistent Organic Pollutants): It does not contain substances listed on the POP list (EU Regulation 2019/1021 on the export and import of dangerous chemicals).
Ozone Depletion Regulation (EU 1005/2009): Contains no substances listed in the ozone depleting list (EU Regulation 1005/2009 on substances that deplete the ozone layer).
Explosives Precursors Regulation (EU 2019/1148): It does not contain substances listed on the list of explosives precursors (EU Regulation 2019/1148 on the marketing and use of explosives precursors).
Drug Precursors Regulation (EC 273/2004): It contains substance(s) listed on the list of drug precursors (Regulation EC 273/2004 on the manufacture and marketing of certain substances used for the illicit manufacture of narcotic drugs and psychotropic substances).

Name	CN marking	CAS number:	CN code:	Category	Limit	ANNEX
Toluene*		108-88-3	2902 30 00	Category 3		ANNEX I

Other regulations (Poland)*:
Material Safety Data Sheet EU format according to 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 Regulation (EEC) No 793/93 and No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 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 February 18, 2021 on the entry into force of amendments to Annexes A and B of the European Agreement on the International Carriage of Dangerous Goods by Road (ADR), drawn up in Geneva on September 30, 1957. (Journal of Laws of 2019, , item 874).

15.2 Chemical safety assessment
Not performed.

SECTION 16: OTHER INFORMATION
Classification was made using the calculation method in accordance with the classification rules contained in Regulation No. 1272/2008 / EC

Explanation of abbreviations and acronyms*	
ADN	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	Estimated acute toxicity
BCF	BCF bioconcentration factor
BLV	Quantitative limit value
BOD	Biochemical Oxygen Demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived level causing minimal changes
DNEL	Derived no effect level of
EC number:	European Community number
EC50	Medium effective concentration
EN	European standard
IARC:	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
LC50	The concentration of the substance causing the death of 50% of the population of test organisms
LD50	The 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 effects are observed
NOAEC	Dose level at which no adverse effects are observed
NOEC	Maximum Concentration at which no adverse effects are observed
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limit value
PBT	substance, which is Persistent, Bio-accumulative and toxic
PNEC	Predicted no-effect concentration
RID	Regulations the international carriage of dangerous goods by rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical Oxygen Demand (ThOD)
TLM	Middle tolerance limit
VOC	Volatile Organic Compounds
CAS number:	CAS number:
N.O.S.	Not otherwise specified
vPvB	very Persistent and very Bio-accumulative
ED	Endocrine disrupting properties

Full text of H and EUH phrases*	
Acute Tox. 4 (Inhalation)	Acute toxicity (after inhalation), category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
Repr. 2	Reproduction toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3, narcotic effect

Other data sources: ECHA European Chemicals Agency

Directions for training*: Use in accordance with health and safety rules and safety procedures.

Classification and procedure used to determine the classification of mixtures according to the Regulation (EC) 1272/2008[CLP]		
Flam. Liq. 2	H225	Based on research results
Acute Tox. 4 (Inhalation: dust, mist)	H332	Calculation method
Eye Irrit. 2	H319	Calculation method
Carc. 2	H351	Calculation method
Repr. 2	H361d	Expert assessment
STOT SE 3	H336	Calculation method

Changes in the Sheet compared to the previous version:
Update of sections:
9: rewording of sub-section 9.1: Information on basic physical and chemical properties
11: rewording of sub-section 11.1: Information on the hazard classes defined in Regulation (EC) No 1272/ 2008: added subsection 11.2. Information on other hazards
12: new subsection 12.6: Endocrine disrupting properties.
14: rewording of sub-section 14.1: UN number or ID number; rewording of sub-section 14.7: Sea transport in bulk in accordance with IMO instruments.
Changes in the content of sections:
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, 10.6, 11.1, 11.2, 12.1, 12.2, 12.3, 12.4, 12.6, 12.7, 13.1, 14.1, 14.2, 14.3, 14.6, 14.7, 15.1, 16.
General update.

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