SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

C6500 Ředidlo univerzální

Creation date	10. July 2018
Revision date	Version 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Substance / mixture	mixture
Number	C6500-A-C0000
Other mixture names	C6500 universal thinner THINNER

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

Mixture's intended use	For thinning of coating compositions for which this thinner is prescribed by standards 1/ nitrocellulose coating compositions (e.g. C 1037, C 1038, C 2001) 2/ synthetic coating compositions (e.g. S 1023, S 2070, SU 2013) 3/ chlorinated rubber coating compositions (H 2001, H 2003, H 2203) 4/ spirit coating compositions (L 1010) 5/ oil coating compositions (O 2116)
Mixture uses advised against	The product should not be used in ways other then those referred in Section 1.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Name or trade name	COLORLAK, a.s.
Address	Tovární 1076, Staré Město, 686 03 Czech Republic
Identification number (CRN)	49444964
VAT Reg No	CZ49444964
Phone	+420 572527111
E-mail	colorlak@colorlak.cz
Web address	www.colorlak.cz

Competent person responsible for the safety data sheet

Name	Ing. Turoňová Veronika
E-mail	turonova@colorlak.cz

1.4. Emergency telephone number

National Health Service (NHS) 111
National poisoning information centre Scotland, NHS 24: 111

SECTION 2: Hazards identification

2.1. Substance or mixture classification

Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Flam. Liq. 2, H225
Asp. Tox. 1, H304
Skin Irrit. 2, H315
Eye Dam. 1, H318
STOT SE 3, H335, H336
Repr. 2, H361d
STOT RE 2, H373
Aquatic Chronic 2, H411

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

Highly flammable liquid and vapour.

Most serious adverse effects on human health and the environment

May be fatal if swallowed and enters airways. Causes skin irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure. Causes serious eye damage. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram

Signal word

Danger

Hazardous substances

Technical xylene (mixed with ethylbenzene)
toluene
2-methylpropan-1-ol
hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Hazard statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331	Do NOT induce vomiting.
P370+P378	In case of fire: Use foam (alcohol resistant), carbon dioxide, a spray mist, powder to extinguish.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to by handing over to a person authorized to dispose of waste or a site designated by the town.

Supplemental information

EUH 066	Repeated exposure may cause skin dryness or cracking.

Requirements for child-resistant fastenings and tactile warning of danger

Container must carry a tactile warning of danger. Container must be fitted with child-resistant fastening.

2.3. Other hazards

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
EC: 905-588-0 Registration number: 01-2119539452-40	Technical xylene (mixed with ethylbenzene)	21-23	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4, H312+H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Specific concentration limit: STOT RE 2, H373: C ≥ 10 %	3
Index: 601-021-00-3 CAS: 108-88-3 EC: 203-625-9 Registration number: 01-2119471310-51	toluene	20-22	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Repr. 2, H361d STOT RE 2, H373	1, 2
Index: 607-025-00-1 CAS: 123-86-4 EC: 204-658-1 Registration number: 01-2119485493-29	n-butyl acetate	17,5-20	Flam. Liq. 3, H226 STOT SE 3, H336	1
Index: 603-108-00-1 CAS: 78-83-1 EC: 201-148-0 Registration number: 01-2119484609-23	2-methylpropan-1-ol	10-13	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335, H336	1
Index: 606-001-00-8 CAS: 67-64-1 EC: 200-662-2 Registration number: 01-2119471330-49	acetone	8-10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	1
EC: 926-605-8 Registration number: 01-2119486291-36	Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane	5-7	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411	3
EC: 919-446-0 Registration number: 01-2119458049-33	hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	5-7	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 STOT RE 1, H372 Aquatic Chronic 2, H411	3

Notes

1 Substance for which exposure limits of Community for working environment exist.

2 The use of the substance is restricted by Annex XVII of REACH Regulation

3 Substance of unknown or variable composition, complex reaction products or biological materials - UVCB.

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

Inhalation

Take care of your own safety, do not let the affected person walk! Terminate the exposure immediately; move the affected person to fresh air. Beware of the contaminated clothes. Depending on the situation, call the medical rescue service and ensure medical treatment considering the frequent need of further observation for at least 24 hours.

Skin contact

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists. Rinse skin with water/shower.

Eye contact

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. No neutralization should be performed in any case! Rinsing should be continued for 10-30 minutes from the inner to the outer eye corner to make sure that the other eye is not involved. Depending on the situation, call medical rescue service or ensure medical treatment as promptly as possible. Everyone must be referred for treatment even if affected only a little.

Ingestion

If the affected person vomits, make sure to prevent inhalation of the vomit (as there is a danger of lung damage after inhalation of these liquids in the airways also in infinitesimal amount). Provide medical treatment considering the frequent need of further observation for at least 24 hours. Bring an original container with the label and the Safety Data Sheet of the given substance as appropriate.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation

Inhaling vapours can cause corrosion of the breathing system. Cough, headache. May cause respiratory irritation. May cause drowsiness or dizziness.

Skin contact

Causes skin irritation.

Eye contact

Causes serious eye damage.

Ingestion

Corrosion of the digestion system can occur.

4.3. Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Closed containers with the product near the fire should be cooled with water. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide sufficient ventilation. Highly flammable liquid and vapour. Remove all ignition sources. Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale aerosols. Prevent contact with skin and eyes.

6.2. Environmental precautions

Do not allow to enter drains. Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent formation of gases and vapours in flammable or explosive concentrations and concentrations exceeding the occupational exposure limits. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. Use non-sparking tools. Use of antistatic clothes and footwear is recommended. Do not inhale aerosols. Prevent contact with skin and eyes. No smoking. Use only non-sparking tools. Obtain special instructions before use. Wash hands and exposed parts of the body thoroughly after handling. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Avoid release to the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Do not expose to sunlight. Store locked up. Keep container tightly closed. Keep cool.

Storage class	8A - Combustible corrosive substances
Storage temperature	5až25 °C

The specific requirements or rules relating to the substance/mixture

Solvent vapours are heavier than air and accumulate especially near the floor where they may form an explosive mixture with the air.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

European Union

Substance name (component)	Type	Time of exposure	Value	Note	Source
Technical xylene (mixed with ethylbenzene)	TWA	8 hours	221-442 mg/m³		EU limits
	TWA	8 hours	50-100 ppm		
toluene (CAS: 108-88-3)	OEL	8 hours	192 mg/m³		EU limits
	OEL	8 hours	50 ppm		
	OEL	Short-term	384 mg/m³		
	OEL	Short-term	100 ppm		
acetone (CAS: 67-64-1)	OEL	8 hours	1210 mg/m³		EU limits
	OEL	8 hours	500 ppm		

United Kingdom of Great Britain and Northern Ireland

Substance name (component)	Type	Time of exposure	Value	Note	Source
toluene (CAS: 108-88-3)	WEL	8 hours	191 mg/m³		Gestis
	WEL	Short-term	384 mg/m³		
	WEL	8 hours	50 ppm		
	WEL	Short-term	100 ppm		
n-butyl acetate (CAS: 123-86-4)	WEL	8 hours	724 mg/m³		Gestis
	WEL	Short-term	966 mg/m³		
	WEL	8 hours	150 ppm		
	WEL	Short-term	200 ppm		
2-methylpropan-1-ol (CAS: 78-83-1)	WEL	8 hours	154 mg/m³		Gestis
	WEL	Short-term	231 mg/m³		
	WEL	8 hours	50 ppm		
	WEL	Short-term	75 ppm		
acetone (CAS: 67-64-1)	WEL	8 hours	1210 mg/m³		Gestis
	WEL	Short-term	3620 mg/m³		
	WEL	8 hours	500 ppm		
	WEL	Short-term	1500 ppm		

DNEL

2-methylpropan-1-ol

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	310 mg/m³	Local chronic effects	
Consumers	Inhalation	55 mg/m³	Local chronic effects	

Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	5306 mg/m³	Systemic chronic effects	
Workers	Dermal	13964 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	1131 mg/m³	Systemic chronic effects	
Consumers	Dermal	1377 mg/kg bw/day	Systemic chronic effects	
Consumers	Oral	1301 mg/kg bw/day	Systemic chronic effects	

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	330 mg/m³	Systemic chronic effects	
Workers	Dermal	44 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	71 mg/m³	Systemic chronic effects	
Consumers	Dermal	26 mg/kg bw/day	Systemic chronic effects	
Consumers	Oral	26 mg/kg bw/day	Systemic chronic effects	

n-butyl acetate

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	48 mg/m³	Systemic chronic effects	
Workers	Dermal	7 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	12 mg/m³	Systemic chronic effects	
Consumers	Dermal	3.4 mg/kg bw/day	Systemic chronic effects	
Consumers	Oral	2 mg/kg bw/day	Systemic chronic effects	

Technical xylene (mixed with ethylbenzene)

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	77 mg/m³	Systemic chronic effects	
Workers	Inhalation	289 mg/m³	Local acute effects	
Workers	Dermal	180 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	14.8 mg/m³	Systemic chronic effects	
Consumers	Dermal	108 mg/kg bw/day	Systemic chronic effects	
Consumers	Oral	1.6 mg/kg bw/day	Systemic chronic effects	

toluene

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	192 mg/m³	Systemic chronic effects	
Consumers	Inhalation	226 mg/m³	Systemic acute effects	

PNEC

2-methylpropan-1-ol

Route of exposure	Value	Determining method
Freshwater environment	400 µg/l	
Seawater	40 µg/l	
Water (occasional leak)	11 mg/l	
Microorganisms in wastewater treatment plants	10 mg/l	
Freshwater sediment	1.52 mg/kg of dry substance of sediment	
Sea sediments	0.152 mg/kg of dry substance of sediment	
Soil (agricultural)	0.0699 mg/kg of dry substance of soil	

acetone

Route of exposure	Value	Determining method
Freshwater environment	10.6 mg/l	
Seawater	1.06 mg/l	
Water (occasional leak)	21 mg/l	
Microorganisms in wastewater treatment plants	100 mg/l	
Freshwater sediment	30.4 mg/kg of dry substance of sediment	
Sea sediments	3.04 mg/kg of dry substance of sediment	
Soil (agricultural)	29.5 mg/kg of dry substance of soil	

n-butyl acetate

Route of exposure	Value	Determining method
Freshwater environment	180 µg/l	
Seawater	18 µg/l	
Water (occasional leak)	360 µg/l	
Microorganisms in wastewater treatment plants	35.6 mg/l	
Freshwater sediment	981 µg/kg	
Sea sediments	98.1 µg/kg	
Soil (agricultural)	90.3 µg/kg	

Technical xylene (mixed with ethylbenzene)

Route of exposure	Value	Determining method
Freshwater environment	327 µg/l	
Seawater	327 µg/l	
Soil (agricultural)	2.31 mg/kg of dry substance of soil	
Food chain	327 µg/l	
Microorganisms in wastewater treatment plants	6.58 mg/l	
Sea sediments	12.46 mg/kg of dry substance of sediment	
Freshwater sediment	12.46 mg/kg of dry substance of sediment	

toluene

Route of exposure	Value	Determining method
Freshwater environment	680 µg/l	
Seawater	680 µg/l	
Water (occasional leak)	680 µg/l	
Microorganisms in wastewater treatment plants	13.61 mg/l	
Freshwater sediment	16.39 mg/kg of dry substance of sediment	
Sea sediments	16.39 mg/kg of dry substance of sediment	
Soil (agricultural)	2.89 mg/kg of dry substance of soil	

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. If exposure limits cannot be observed in this mode, suitable protection of airways must be used. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Protective goggles or face shield (based on the nature of the work performed).

Skin protection

Hand protection: Protective gloves resistant to the product. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly.

Respiratory protection

Mask with a filter in a poorly ventilated environment.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2. Collect spillage.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	clear, colorless liquid without foreign impurities
Physical state	liquid at 20°C
color	clear, transparent
Odour	after organic solvents
Odour threshold	data not available
pH	data not available
Melting point/freezing point	data not available
Initial boiling point and boiling range	data not available
Flash point	6 °C (ČSN EN 456)
Evaporation rate	data not available
Flammability (solid, gas)	flammable liquid of hazard class I
Upper/lower flammability or explosive limits	
flammability limits	data not available
explosive limits	
bottom	0.5 Vol. %
upper	13 Vol. %
Vapour pressure	1.6 until 233 hPa at 20 °C
Vapour density	>1 (air = 1)
Relative density	data not available
Solubility(ies)	
solubility in water	not miscible
solubility in fats	data not available
Partition coefficient: n-octanol/water	log Pow 0.24 až 6
Auto-ignition temperature	data not available
Decomposition temperature	data not available
Viscosity	data not available
Kinematic viscosity	<20.5 mm^2/s at 40°C
Explosive properties	data not available
Oxidising properties	data not available

VOC content in product: category and subcategory of products - not classified

9.2. Other information

Density	0.83-0.84 g/cm^3 at 23 °C (ČSN EN ISO 2811-1, DIN 53 217/3)
ignition temperature	420 °C (ČSN 33 0371)
combustion temperature	18 °C
total organic carbon (TOC)	0.780 kg/kg

solid content (dry matter) 0 % volume
Calorific value: 33,88 MJ/kg (ČSN 65 6169)
Heating value: 33,28 MJ/kg (ČSN 65 6169)

SECTION 10: Stability and reactivity

10.1. Reactivity
not available

10.2. Chemical stability
The product is stable under normal conditions.

10.3. Possibility of hazardous reactions
Unknown.

10.4. Conditions to avoid
The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials
Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products
Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

2-methylpropan-1-ol

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Oral	LD50	2830-3350 mg/kg bw		Rat		echa
Inhalation	LC50	18.18 mg/l of air	6 hour	Rat		
Dermal	LD50	2000-2460 mg/kg bw		Rabbit		echa

acetone

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Oral	LD50	5800 mg/kg bw		Rat		echa
Inhalation	LC50	50.1 mg/l of air	8 hour	Rat		echa
Dermal	LD50	7426-15800 mg/kg bw		Rabbit		echa

Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Oral	LD50	25 ml/kg bw		Rat (Rattus norvegicus)		ECHA
Inhalation	LC50	73860 ppm	4 hour	Rat (Rattus norvegicus)		ECHA
Dermal	LD50	5 ml/kg bw		Rabbit		ECHA

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Oral	LD50	15000 mg/kg bw		Rat		ECHA
Inhalation	LD50	13.1 mg/l of air	4 hour	Rat		ECHA

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Dermal	LD50	4 ml/kg bw		Rat		ECHA
Inhalation	NOAEL	300 ppm		Rat		ECHA
Dermal	NOAEL	495 mg/kg bw/day		Rat		ECHA

n-butyl acetate

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Oral	LD50	10736-12760 mg/kg bw		Rat		echa
Inhalation	LC50	740-71500 mg/m³ of air	4 hour	Rat		echa
Dermal	LD50	16 ml/kg bw		Rabbit		echa

Technical xylene (mixed with ethylbenzene)

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Oral	LD50	3523 mg/kg bw		Rat		ECHA
Inhalation (vapor)	LD50	6350 ppm	4 hour	Rat		ECHA
Dermal	LD50	12126 mg/kg bw		Rabbit		ECHA
Oral	NOAEL	150 mg/kg bw		Rat		ECHA
Oral	LOAEL	150 mg/kg bw		Rat		ECHA

toluene

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Oral	LD50	5580 mg/kg bw		Rabbit		echa
Inhalation	LC50	25.7 mg/l of air	4	Rat		echa
Dermal	LD50	5000 mg/kg bw		Rabbit		echa

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/irritation
Causes serious eye damage.

Respiratory or skin sensitisation
Based on available data the classification criteria are not met.

Germ cell mutagenicity
Based on available data the classification criteria are not met.

Carcinogenicity
Based on available data the classification criteria are not met.

Reproductive toxicity
Suspected of damaging the unborn child.

Toxicity for specific target organ - single exposure
May cause respiratory irritation. May cause drowsiness or dizziness.

Toxicity for specific target organ - repeated exposure
May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

2-methylpropan-1-ol

Route of exposure	Parameter	Result	Value	Time of exposure	Species	Sex	Source
Oral	NOAEL		1450 mg/kg bw/day		Rat		echa
Inhalation	NOAEL		7.5 mg/l of air		Rat		echa

acetone

Route of exposure	Parameter	Result	Value	Time of exposure	Species	Sex	Source
Oral	NOAEL		10000-50000 ppm		Rat		echa
Inhalation	NOAEC		19000 ppm		Rat		echa

Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane

Route of exposure	Parameter	Result	Value	Time of exposure	Species	Sex	Source
Inhalation	NOAEC		2984-8992 ppm		Rat (Rattus norvegicus)		ECHA

n-butyl acetate

Route of exposure	Parameter	Result	Value	Time of exposure	Species	Sex	Source
Inhalation	NOAEC		500 ppm		Rat		echa

toluene

Route of exposure	Parameter	Result	Value	Time of exposure	Species	Sex	Source
Oral	NOAEL		625 mg/kg bw/day		Rat (Rattus norvegicus)		echa
Inhalation	NOAEC		1.131 mg/l of air		Rat (Rattus norvegicus)		echa

Aspiration hazard

May be fatal if swallowed and enters airways. Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

Toxic to aquatic life with long lasting effects.

2-methylpropan-1-ol

Parameter	Value	Time of exposure	Species	Environment	Source
LC50	1.43 g/l	96 hour	Fishes (Oncorhynchus mykiss)		echa
EC50	1.1 g/l	48 hour	Aquatic invertebrates		echa
EC50	593-1799 mg/l	72 hour	Algae and other aquatic plants		echa
IC50	1 g/l	16 hour	Microorganisms (Photobacterium phosphoreum)		echa

acetone

Parameter	Value	Time of exposure	Species	Environment	Source
LC50	5.54-8.12 g/l	96 hour	Fishes (Oncorhynchus mykiss)		echa
LC50	8.8 g/l	48 hour	Aquatic invertebrates		echa
EC50	61.15 g/l	30 min	Microorganisms (Photobacterium phosphoreum)		echa

Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane

Parameter	Value	Time of exposure	Species	Environment	Source
LL50	9.776-12 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		ECHA
EL50	17.06 mg/l	48 hour	Aquatic invertebrates		ECHA
EL50	7.276 mg/l	72 hour	Algae and other aquatic plants		ECHA

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Parameter	Value	Time of exposure	Species	Environment	Source
LD50	10 mg/l	4 day	Fishes (Oncorhynchus mykiss)		ECHA
LD50	10 mg/kg	48 hour	Aquatic invertebrates		ECHA
EC50	580 µg/l	4 day	Algae and other aquatic plants		ECHA

n-butyl acetate

Parameter	Value	Time of exposure	Species	Environment	Source
LC50	18 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		echa
EC50	32-44 mg/l	48 hour	Aquatic invertebrates		echa
EC50	246-674.7 mg/l	72 hour	Algae and other aquatic plants		echa
IC50	356 mg/l	40 hour	Microorganisms (Photobacterium phosphoreum)		echa

Technical xylene (mixed with ethylbenzene)

Parameter	Value	Time of exposure	Species	Environment	Source
EC50	96 mg/l	24 hour	Microorganisms (Photobacterium phosphoreum)		ECHA
EC50	2.2 mg/l	73 hour	Algae (Selenastrum capricornutum)		ECHA
IC50	1 mg/l	24 hour	Aquatic invertebrates		ECHA
LC50	2.6 mg/l	4 day	Fishes (Oncorhynchus mykiss)		ECHA

toluene

Parameter	Value	Time of exposure	Species	Environment	Source
LC50	5.5 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		BL dodavatele
NOEC	1.37 mg/l	40 day	Fishes (Pimephales promelas)		echa

toluene

Parameter	Value	Time of exposure	Species	Environment	Source
EC50	3.78 mg/l	48 hour	Invertebrates	Freshwater	BL dodavatele
NOEC	0.74 mg/l	7 day	Invertebrates	Freshwater	BL dodavatele
EC50	134 mg/l	3 hour	Algae (Chlorella vulgaris)	Freshwater	BL dodavatele
NOEC	10 mg/l		Algae	Freshwater	BL dodavatele
EC50	84 mg/l	24 hour	Microorganisms (Photobacterium phosphoreum)		echa

Chronic toxicity

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Parameter	Value	Time of exposure	Species	Environment	Source
NOEL	130 µg/l	96 hour	Fishes (Oncorhynchus mykiss)		ECHA
EC50	328 µg/l	21 day	Aquatic invertebrates		ECHA

Technical xylene (mixed with ethylbenzene)

Parameter	Value	Time of exposure	Species	Environment	Source
NOEC	960 µg/l		Aquatic invertebrates		ECHA
NOEC	1.3 mg/l	56 day	Fishes (Oncorhynchus mykiss)		ECHA

12.2. Persistence and degradability

Data not available.

12.3. Bioaccumulative potential

Not available.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Other adverse effects

Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation

Council Directive 75/442/EEC on waste, as amended. Decree No. 383/2001 Coll., on details regarding waste handling as amended. Decree No. 93/2016 Coll., (waste catalogue) as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

07 07 04	other organic solvents, washing liquids and mother liquors
14 06 03	other solvents and solvent mixtures
20 01 13	solvents

Packaging waste type code

15 01 10	packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

14.1. UN number

UN 1993

14.2. UN proper shipping name

FLAMMABLE LIQUID, N.O.S. (obsahuje TOLUEN, XYLEN)

14.3. Transport hazard class(es)

3 Flammable liquids

14.4. Packing group

II - substances presenting medium danger

14.5. Environmental hazards

Dangerous thing meets the criteria for designating environmentally hazardous substances in pieces over 5 liters / 5 kg.

14.6. Special precautions for user

Reference in the Sections 4 to 8.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not available

Additional information

Hazard identification No.	**33** (Kemler Code)
UN number	**1993**
Classification code	F1
Safety signs	3+hazardous for the environment

Road transport - ADR

Special provision	274, 601, 640C
Limited quantities	1 L
Packaging	
Packing instructions	P001
Mixed packing provisions	MP19
Portable tanks and bulk containers	
Guidelines	T7
Special provision	TP1, TP8, TP28
ADR tank	
Tank code	L1,5BN
Vehicles for tank carriage	FL
Transport category	2
Tunnel restriction code	(D/E)
Special provision for operation	S2, S20

Railway transport - RID

Special provision	274, 601, 640C
Packaging	
Packing instructions	P001
Mixed packing provisions	MP19
Portable tanks and bulk containers	
Guidelines	T7
Special provision	TP1, TP8, TP28
RID Tanks	
Tank code	L1,5BN
Transport category	2

Air transport - ICAO/IATA

Packaging instructions for limited amount	Y341
Packaging instructions passenger	353
Cargo packaging instructions	364

Marine transport - IMDG

EmS (emergency plan)	F-E, S-E
MFAG	310
Marine Pollutant	No

SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) 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, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th 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, as amended. The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended (the Chemical Act). Decree No. 432/2003 Coll., laying down conditions for assigning categories to individual jobs, limit values of indices from biological exposure tests, conditions for the sampling of biological materials for biological exposure and the particulars of the reports on work with asbestos and biological agents as amended.

15.2. Chemical safety assessment

not available

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H312+H332	Harmful in contact with skin or if inhaled.

Guidelines for safe handling used in the safety data sheet

P501	Dispose of contents/container to by handing over to a person authorized to dispose of waste or a site designated by the town.
P102	Keep out of reach of children.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P331	Do NOT induce vomiting.
P405	Store locked up.
P101	If medical advice is needed, have product container or label at hand.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P370+P378	In case of fire: Use foam (alcohol resistant), carbon dioxide, a spray mist, powder to extinguish.
P260	Do not breathe vapours/spray.
P201	Obtain special instructions before use.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P103	Read label before use.
P391	Collect spillage.

A list of additional standard phrases used in the safety data sheet

EUH 066	Repeated exposure may cause skin dryness or cracking.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL	Derived no-effect level
EC	Identification code for each substance listed in EINECS
EC50	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC50	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC50	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD50	Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log Kow	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted no-effect concentration

ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment
Asp. Tox.	Aspiration hazard
Eye Dam.	Serious eye damage
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquid
Repr.	Reproductive toxicity
Skin Irrit.	Skin irritation
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended. First aid principles after the exposure to the chemicals (Zásady pro poskytování první pomoci při expozici chemickým látkám, doc. MUDr. Daniela Pelclová, CSc., MUDr. Alexandr Fuchs, CSc., MUDr. Miroslava Hornychová, CSc., MUDr. Zdeňka Trávníčková, CSc., Jiřina Fridrichovská, prom. chem.). Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.