Article Print o Versio	date:	495 19.12.2019 7.7		erdünner date: 14.12.2019 te: 14.12.2019		EN Page 1 / 17
SEC	TION 1: Ide	entification of t	he substan	ce/mixture and c	of the compa	ny/undertaking
1.1.	product id	entifiers				
		(manufacturer/su e/designation	oplier)	495 Epoxy-\	/erdünner	
1.2.	Relevant ic	lentified uses of	the substar	ice or mixture and	uses advised	against
		tentified uses: tect surfaces				
<u>1.3</u> .	-	e supplier of the s	afety data sl	neet		
	supplier (ma	anufacturer/impor	ter/downstrea	am user/distributor)		
	Vismara Unt	ernehmungen CH	I-5000 Aarau			
	+41(0)62 84	2 93 34 www.farb	laden.ch			
	Dept. respo	nsible for informa	tion:			
	laboratory N	Manager opetent person)		info@fa	rbladen.ch	
14		/ telephone num	her	iiio@iai	bladen.ch	
1.4.		telephone numb		145 (+4	1 (0)44 251 51	51)
SEC	TION 2: Ha	zards identific	ation			
2.1.	Classificat	ion of the substa	ance or mixt	ure		
	Classificat	ion according to	Regulation	(EC) No 1272/2008	3 [CLP]	
	The mixture	e is classified as h	azardous ac	cording to regulatio	n (EC) No 1272	2/2008 [CLP].
	Flam. Liq. 2	2 / H225	Flammab	le liquids		Highly flammable liquid and vapour.
	Skin Irrit. 2			sion/irritation		Causes skin irritation.
	Eye Irrit. 2 /			ye damage/eye irrit	ation	Causes serious eye irritation.
	STOT SE 3 STOT SE 3			gle exposure gle exposure		May cause respiratory irritation. May cause drowsiness or dizziness.
	STOT SE 3			eated exposure		May cause damage to organs through
						prolonged or repeated exposure.
	Asp. Tox. 1		Aspiratior		· · · · · · · · · · · · · · · · · · ·	May be fatal if swallowed and enters airways.
<u> </u>	•	ronic 3 / H412	Hazardou	s to the aquatic env	/ironment	Harmful to aquatic life with long lasting effects.
2.2.	Label elem				DI	
			Julation (EC)	No. 1272/2008 [CI		
	Hazard pic		<b>^</b>			
		<b><!-- --></b>		Danger		
	$\mathbf{V}$	$\mathbf{\vee}$	V			
	Hazard sta					
	H225 H315		s skin irritati	quid and vapour.		
	H319		es serious ey			
	H335		ause respirat			
	H336	May c	ause drowsir	less or dizziness.		
	H373			e to organs through		epeated exposure.
	H304 H412			llowed and enters a life with long lasting		
		ary statements			, 5.10010.	
	P101		ical advice is	needed, have proc	luct container o	or label at hand.
	P102	Keep	out of reach	of children.		
	P103		label before			
	P210					nes and other ignition sources. No smoking.
	P240 P241			container and receiv of electrical equipme		
	P241 P242		on-sparking t		511L.	
	P243			ent static discharge	20	

P243 Take action to prevent static discharges.

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Do not b	preathe vapour.				
Avoid br	eathing vapours.				
Wash h	ands thoroughly after handling.				
		ea.			
Avoid re	lease to the environment.				
Wear pr	otective gloves and eye/face protect	ction.			
IF SWA	LOWED: Immediately call a POIS	ON CENTER or doctor/physician.			
			ith water [or shower].		
	IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and				
,	5				
		in if you feel unwell.			
	5				
-					
	• •	liner tightly closed.			
	• •				
		a sin sasting alout			
-		ncineration plant.			
	•				
•	rbons, C9, aromatics				
Xylene					
	Avoid br Wash ha Use only Avoid re Wear pr IF SWAI IF ON S 353 IF ON S IF INHA 338 IF IN EY easy to 6 Call a Po Do NOT If skin in If eye irr Take off In case of Store in Keep loo Dispose ents for label 2,6-dime	Issue date: 14.12.2019 Do not breathe vapour. Avoid breathing vapours. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated and Avoid release to the environment. Wear protective gloves and eye/face protect IF SWALLOWED: Immediately call a POIS IF ON SKIN: Wash with plenty of soap and 353 IF ON SKIN (or hair): Take off immediately IF INHALED: Remove person to fresh air and 388 IF IN EYES: Rinse cautiously with water for easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician Do NOT induce vomiting. If skin irritation occurs: Get medical advice/ If eye irritation persists: Get medical advice/ If eye irritation persists: Get medical advice/ If eye in a well-ventilated place. Keep contants Store in a well-	Issue date: 14.12.2019 Page 2 / 17 Do not breathe vapour. Avoid breathing vapours. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves and eye/face protection. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. 353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin w IF INHALED: Remove person to fresh air and keep comfortable for breathing. 338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lens easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician if you feel unwell. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Keep locked up. Dispose of contents/container to industrial incineration plant. ents for labelling 2,6-dimethylheptan-4-one Hydrocarbons, C9, aromatics		

Supplemental Hazard information (EU)

not applicable

#### 2.3. Other hazards

No information available.

#### **SECTION 3: Composition / information on ingredients**

### 3.2. Mixtures

Solvents/Thinner Description Classification according to Regulation (EC) No 1272/2008 [CLP] EC No. **REACH No.** CAS No. Designation Wt % **INDEX No.** classification // Remark 203-550-1 01-2119473980-30 108-10-1 4-methylpentan-2-one 20 - 25 606-004-00-4 Flam. Liq. 2 H225 / Acute Tox. 4 H332 / Eye Irrit. 2 H319 / STOT SE 3 H335 215-535-7 01-2119488216-32 1330-20-7 **Xylene** 20 - 25 601-022-00-9 Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / STOT SE 3 H335 / STOT RE 2 H373 / Asp. Tox. 1 H304 / Flam. Liq. 3 H226 918-668-5 01-2119455851-35 64742-95-6 Hydrocarbons, C9, aromatics 20 - 25 649-356-00-4 Flam. Liq. 3 H226 / Asp. Tox. 1 H304 / STOT SE 3 H335 / STOT SE 3 H336 / Aquatic Chronic 2 H411 203-539-1 01-2119457435-35 1-methoxy-2-propanol 107-98-2 12.5 - 20 603-064-00-3 Flam. Liq. 3 H226 / STOT SE 3 H336 203-620-1 108-83-8 2,6-dimethylheptan-4-one 10 - 12.5 606-005-00-X Flam. Liq. 3 H226 / STOT SE 3 H335 Specific concentration limit (SCL): STOT SE 3 H335 >= 10

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202-849-4 100-41-4 601-023-0	ethylbe	9489370-35 enzene Liq. 2 H225 / Acute Tox. 4 H332	5 - 10 / STOT RE 2 H373 / Asp. Tox. 1	

#### Additional information

Full text of classification: see section 16

#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### **General information**

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

#### In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

#### Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

#### After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

#### After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

- 4.2. **Most important symptoms and effects, both acute and delayed** In all cases of doubt, or when symptoms persist, seek medical advice.
- 4.3. **Indication of any immediate medical attention and special treatment needed** First Aid, decontamination, treatment of symptoms.

#### **SECTION 5: Firefighting measures**

5.1. Extinguishing media

## Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

#### Unsuitable extinguishing media

strong water jet

#### 5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

#### 5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

#### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

#### 6.3. Methods and material for containment and cleaning up Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

#### 6.4. **Reference to other sections** Observe protective provisions (see section 7 and 8).

### SECTION 7: Handling and storage

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#### 7.1. Precautions for safe handling

#### Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

#### **Further information**

Vapours are heavier than air. Vapours form explosive mixtures with air.

#### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRBS 2153)".

#### Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

#### Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

#### 7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

#### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Occupational exposure limit values: 4-methylpentan-2-one INDEX No. 606-004-00-4 / EC No. 203-550-1 / CAS No. 108-10-1 WEL, TWA: 208 mg/m3; 50 ppm WEL, STEL: 416 mg/m3; 100 ppm Remark: (may be absorbed through the skin) BMGV. TWA: 20 umol/L Remark: 4-methylpentan - 2-one; urine; end of exposure or end of shift **Xvlene** INDEX No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7 WEL, TWA: 220 mg/m3; 50 ppm WEL, STEL: 441 mg/m3; 100 ppm Remark: (may be absorbed through the skin) BMGV, TWA: 650 mmol/mol creatinine Remark: methyl hippuric acid; urine; end of exposure or end of shift 1-methoxy-2-propanol INDEX No. 603-064-00-3 / EC No. 203-539-1 / CAS No. 107-98-2 WEL, TWA: 375 mg/m3; 100 ppm WEL, STEL: 560 mg/m3; 150 ppm Remark: (may be absorbed through the skin) 2.6-dimethylheptan-4-one INDEX No. 606-005-00-X / EC No. 203-620-1 / CAS No. 108-83-8 WEL, TWA: 148 mg/m3; 25 ppm ethylbenzene INDEX No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4

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WEL,	TWA: 441 mg/m3; 10 STEL: 552 mg/m3; 1	25 ppm	

STEL : short-term occupational exposure limit value Ceiling : peak limitation

Remark: (may be absorbed through the skin) Additional information TWA : long-term occupational exposure limit value DNEL: **Xvlene** INDEX No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7 DNEL long-term dermal (systemic), Workers: 212 mg/kg bw/day DNEL acute inhalative (local), Workers: 442 mg/m<sup>3</sup> DNEL acute inhalative (systemic), Workers: 442 mg/m<sup>3</sup> DNEL long-term inhalative (local), Workers: DNEL long-term inhalative (systemic), Workers: 221 mg/m<sup>3</sup> DNEL long-term oral (repeated), Consumer: 12,5 mg/kg bw/day DNEL long-term dermal (systemic), Consumer: 125 mg/kg bw/day DNEL acute inhalative (local), Consumer: 260 mg/m<sup>3</sup> DNEL acute inhalative (systemic), Consumer: 260 mg/m<sup>3</sup> DNEL long-term inhalative (local), Consumer: 65,3 mg/m<sup>3</sup> DNEL long-term inhalative (systemic), Consumer: 65,3 mg/m<sup>3</sup> ethylbenzene INDEX No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4 DNEL long-term dermal (systemic), Workers: 180 mg/kg bw/day DNEL long-term inhalative (systemic), Workers: 77 mg/m<sup>3</sup> DNEL long-term oral (repeated), Consumer: 1,6 mg/kg bw/day DNEL long-term inhalative (systemic), Consumer: 15 mg/m<sup>3</sup> 2,6-dimethylheptan-4-one INDEX No. 606-005-00-X / EC No. 203-620-1 / CAS No. 108-83-8 DNEL long-term oral (repeated), Workers: DNEL long-term dermal (systemic), Workers: 80 mg/kg DNEL acute inhalative (local), Workers: 290 mg/m<sup>3</sup> DNEL acute inhalative (systemic), Workers: 290 mg/m<sup>3</sup> DNEL long-term inhalative (local), Workers: 290 mg/m<sup>3</sup> DNEL long-term inhalative (systemic), Workers: 479 mg/m<sup>3</sup> DNEL long-term oral (repeated), Consumer: 7,14 mg/kg bw/day DNEL long-term dermal (systemic), Consumer: 28,5 mg/kg DNEL acute inhalative (local), Consumer: 145 mg/m<sup>3</sup> DNEL acute inhalative (systemic), Consumer: 145 mg/m<sup>3</sup> DNEL long-term inhalative (local), Consumer: 145 mg/m<sup>3</sup> DNEL long-term inhalative (systemic), Consumer: 171 mg/m<sup>3</sup> 1-methoxy-2-propanol INDEX No. 603-064-00-3 / EC No. 203-539-1 / CAS No. 107-98-2 DNEL long-term dermal (systemic). Workers: 183 mg/kg bw/day DNEL acute inhalative (local), Workers: 553,5 mg/m<sup>3</sup> DNEL long-term inhalative (systemic), Workers: 369 mg/m<sup>3</sup> DNEL long-term oral (repeated), Consumer: 3,3 mg/kg bw/day DNEL long-term dermal (systemic), Consumer: 18,1 mg/kg bw/day DNEL long-term inhalative (systemic), Consumer: 43,9 mg/m<sup>3</sup> 4-methylpentan-2-one INDEX No. 606-004-00-4 / EC No. 203-550-1 / CAS No. 108-10-1 DNEL long-term dermal (systemic), Workers: 11,8 mg/kg bw/day DNEL acute inhalative (local), Workers: 208 mg/m<sup>3</sup> DNEL acute inhalative (systemic), Workers: 208 mg/m<sup>3</sup> DNEL long-term inhalative (local), Workers: 83 mg/m<sup>3</sup> DNEL long-term inhalative (systemic), Workers: 83 mg/m<sup>3</sup> DNEL long-term oral (repeated), Consumer: 4,2 mg/kg bw/day DNEL long-term dermal (systemic), Consumer: 4.2 mg/kg bw/day DNEL acute inhalative (local), Consumer: 155,2 mg/m<sup>3</sup>

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DNEL	long-term inhalative	temic), Consumer: 155,2 mg/m³ (local), Consumer: 14,7 mg/m³ (systemic), Consumer: 14,7 mg/m³		
INDEX N DNEL DNEL DNEL DNEL	long-term dermal (sy long-term inhalative long-term oral (repea long-term dermal (sy	s C No. 918-668-5 / CAS No. 64742-95-6 /stemic), Workers: 25 mg/kg bw/day (systemic), Workers: 150 mg/m <sup>3</sup> ated), Consumer: 11 mg/kg /stemic), Consumer: 11 mg/kg bw/day (systemic), Consumer: 32 mg/m <sup>3</sup>		
PNEC:				
PNEC PNEC PNEC PNEC PNEC	aquatic, freshwater: aquatic, marine wate sediment, freshwate sediment, marine wa	er: 0,327 mg/l r: 12,46 mg/kg		
PNEC PNEC PNEC PNEC PNEC,		er: 0,01 mg/l r: 13,7 mg/kg ater: 1,37 mg/kg		
2,6-dime INDEX N PNEC PNEC PNEC,	ethylheptan-4-one No. 606-005-00-X / E sediment, freshwate sediment, marine wa , soil: 0,0746 mg/kg	C No. 203-620-1 / CAS No. 108-83-8 r: 0,46 mg/kg		
1-metho INDEX M PNEC PNEC PNEC PNEC PNEC PNEC,	xy-2-propanol	C No. 203-539-1 / CAS No. 107-98-2 10 mg/l er: 1 mg/l release: 100 mg/l r: 52,3 mg/kg ater: 5,2 mg/kg		
4-methy INDEX M PNEC PNEC PNEC PNEC PNEC PNEC,	Ipentan-2-one	C No. 203-550-1 / CAS No. 108-10-1 0,6 mg/l er: 0,06 mg/l release: 1,5 mg/l r: 8,27 mg/kg dw ater: 0,83 mg/kg dw		

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

#### Personal protection equipment

### **Respiratory protection**

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

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#### Hand protection

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)

Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

#### Eye/face protection

Wear closely fitting protective glasses in case of splashes.

#### Body protection

9.2.

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

#### **Protective measures**

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

#### **Environmental exposure controls**

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

#### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Appearance:	
Physical state:	Liquid
Colour:	refer to label
Odour:	characteristic
Odour threshold:	not applicable
pH at 20 °C:	not applicable
Melting point/freezing point:	not applicable
Initial boiling point and boiling range:	114 °C
	Source: 4-methylpentan-2-one
Flash point:	16 °C
	Method: DIN 53213
Evaporation rate:	not applicable
flammability	
Burning time (s):	not applicable
Upper/lower flammability or explosive limits:	1.05 Vol-%
Lower explosion limit: Upper explosion limit:	1.05 VOI-% 13.7 VoI-%
opper explosion mint.	Source: 1-methoxy-2-propanol
Vapour pressure at 20 °C:	116 mbar
	Source: 2,6-dimethylheptan-4-one
Vapour density:	not applicable
Relative density:	
Density at 20 °C:	0.86 g/cm³
Solubility(ies):	
Water solubility (g/L) at 20 °C:	partially soluble
Partition coefficient: n-octanol/water:	see section 12
Auto-ignition temperature:	287 °C
	Source: 1-methoxy-2-propanol
Decomposition temperature:	not applicable
Viscosity at °C:	10 - 12 sec DIN 4 mm
Explosive properties:	not applicable
Oxidising properties:	not applicable
Other information	
Solid content (%):	0 Wt %

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	solvent content: Organic solvents: Water:	100 Wt % 0 Wt %				
SEC	TION 10: Stability and rea	ctivity				
10.1.	<b>Reactivity</b> No information available.					
10.2.	<b>Chemical stability</b> Stable when applying the red section 7.	commended regulations for storage a	nd handling. Further information on correct storage: refer to			
10.3.	Possibility of hazardous re Keep away from strong acids	<b>actions</b> s, strong bases and strong oxidizing a	gents to avoid exothermic reactions.			
10.4.	<ul> <li>A. Conditions to avoid Hazardous decomposition byproducts may form with exposure to high temperatures.</li> </ul>					
10.5.	Incompatible materials not applicable					
10.6.	Hazardous decomposition Hazardous decomposition b smoke, nitrogen oxides.		high temperatures, e.g.: carbon dioxide, carbon monoxide,			
SEC	TION 11: Toxicological in	formation				
	Classification according to R	egulation (EC) No 1272/2008 [CLP]				
11.1.	Information on toxicologic	al effects	*			
	Acute toxicity					
	Xylene oral, LD50, Rat, male: 5,52 Method: EU Test B.1 inhalative (vapours), LC50,	3 mg/kg Rat, male: 6700 ppm (4 h)				
	ethylbenzene oral, LD50, Rat: 3,5 mg/kg dermal, LD50, Rabbit: 15,4	mg/kg				
	2,6-dimethylheptan-4-one oral, LD50, Rat: 5750 mg/k dermal, LD50, Rat: > 2000 Method: OECD 402 dermal, LD50, Rabbit: 1600 inhalative (vapours), LC50, Method: OECD 403	mg/kg )0 mg/kg				
	1-methoxy-2-propanol oral, LD50, Rat: 4,016 mg/ł Method: EU Test B.1 Depression of central nervo dermal, LD50, Rat: > 2 mg/ Method: EU Test B.3 inhalative (vapours), LC50, Method: OECD 403	bus system kg				
	4-methylpentan-2-one oral, LD50, Rat: 2080 mg/k Method: OECD 401 dermal, LD50, Rat: > 2000 Method: OECD 402 No mortality was observed inhalative (vapours), LC50, Method: OECD 403 headache; dizziness; Unco Hydrocarbons, C9, aromatica	mg/kg at this dosage. Rat: 11,6 mg/l  (4 h) nsciousness				

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Method dermal,	950, Rat: 3492 mg/kg : OECD 401 LD50, Rabbit: > 3160 : OECD 402	) mg/kg	
Skin cor	rosion/irritation; Ser	ious eye damage/eye irritation	
Causes s	skin irritation.		
Causes s	serious eye irritation.		
Causes eyes, R	abbit (24 h) mild skin irritation.		
Skin Slight s eyes, R Method No irrita Inhalati	: OECD 405 ant effect; Fumes can on	irritate the eyes. nay irritate the respiratory tract.	
1-methoy Skin (4 Method Not to b eyes Method	ky-2-propanol h) : EU Test B.4 be classified as skin et : EU Test B.5		
Skin, R Method Degrea eyes	pentan-2-one abbit (4 h) : OECD 404 ses the skin and make : OECD 405	es it dry and rough. ; No skin irritation	
Hydrocar Skin (4 Method Not to b eyes	bons, C9, aromatics	ching/irritant.	
Not to b	e classified as severe	e eye damage or eye irritation.	
Respirat	ory or skin sensitisa	tion	
Skin, M	thylheptan-4-one aximization test, Guin :OECD 406	ea pig: ; evaluation not sensitising.	
Skin, G Method Respira	: Directive 67/548/EE	big: ; evaluation not sensitising.	g.
Skin, G Method	pentan-2-one uinea pig: ; evaluatior : OECD 406 zation test; No data av	-	
Skin: Method	bons, C9, aromatics : OECD 406 be classified as skin se	ensitising.	

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-	tory system: available		
CMR effe	ects (carcinogenio	ity, mutagenicity and toxicity for re	production)
Hamste Carcino	ell mutagenicity; ev r; Mouse; ovaries genicity; evaluatior	-	thylbenzene)
Germ co Carcino Reprodu	genicity; evaluation uctive toxicity; eval	aluation Not known as mutagenic. n Based on available data, the classific uation Based on available data, the cla d on available data, the classification of	assification criteria are not met.
Germ co Carcino	genicity; evaluatior	aluation Not to be classified as germ on Does not qualify as a carcinogen.	cell mutagen (mutagen).
Reprodu Method The toxi of subst Lactatio No data	: OECD 416 ic effect on reprodu ances. in available	uation Does not qualify as a carcinoge action was only demonstrated in anima No effect on fertility in animal studies.	n. I experiments after the administration of very high amoun
In anima animals	al experiments, the		ffect in high doses, which were toxic for the mother
Germ co Carcino Method: Rat; 1.8	ell mutagenicity; ev genicity; evaluatior : NOAEC 4 mg/l; (Target org	aluation It's not considered mutagenic It's not considered carcinogenic. ans: liver)(Inhalation; 2 years; frequen r long periods of time.	cy of treatment: 5 days / week)Tumors were observed aft
Method parents	NOAEL ; 4.1 mg/l	uation It is considered non-toxic to rep	roduction.
Method: Rat; 4.1	NOAEL	DECD test guideline 414)Shown no fru	it-damaging effect in animal experiments.
(chromo (chromo on bacto (chromo 473)Tra Genoto Method	psome aberration te psome aberration te eria; Salmonella typ psome aberration te nslated with www.E kicity in vivo; evalue c OECD 474	est in vitro; mouse lymphoma cells; yest est in vitro; mouse lymphoma cells; no obimurium; with and without metabolic est in vitro; hepatocytes of rats; with an DeepL.com/Translator ation negative	s) (OECD test guideline 476) not unambiguous ) (OECD test guideline 476) negative (reverse mutation te activation) (OECD test guideline 471) negative nd without metabolic activation) (OECD test guideline
Reprod Method		el test; mouse, CD1) (intraperitoneal; ) uation No effect on fertility in animal st	
Germ co Not to b Carcino No data Reprodu		s m cell mutagen (mutagen).	

cle No.: t date: sion:	495 19.12.2019 7.7	Epoxy-Verdünner Revision date: 14.12.2019 Issue date: 14.12.2019	EN Page 11 / 17
May caus	se respiratory irritatio	n.	
May caus	se drowsiness or dizz	ziness.	
May caus	se damage to organs	through prolonged or repeated exposur	re.
Liver ar Causes exposu Liver ar	nd kidney damage; ce damage to organs ( re if it is conclusively nd kidney damage; ce	(repeated exposure) entral nervous system or state all organs affected, if known) thr proven that no other routes of exposure entral nervous system; hearing organs	rough prolonged or repeated exposure (state route of e cause the hazard).
Method RTECS Depres	zene ed dose toxicity, Rat: OECD 407 -no.:; DA0700000 sion of central nervou ent disorders; heada	us system	
Specific of the c headac Specific Specific	entral nervous system he; dizziness; Nause c target organ toxicity c target organ toxicity	a	n of high vapour concentrations may cause impairmer ated exposure may cause skin dryness or cracking. humans.
Specific Inhalati	c target organ toxicity	ystem; May cause drowsiness or dizzine	ess. be classified as specific target organ toxic (repeated
Specific Nose, r Specific Prolong Repeat Method inhalati Repeat Method	target organ toxicity	ay cause respiratory irritation.; Experien (repeated exposure) ntact may cause skin defattening or derr 1,84 mg/l dneys 250 mg/kg bw/day	
Hydrocar Specific May car Specific	bons, C9, aromatics target organ toxicity use respiratory irritat		5.
Aspiratio	on hazard		
May be fa	atal if swallowed and	enters airways.	
2,6-dime	thylheptan-4-one	n Based on available data, the classifica	ation criteria are not met.
Aspirati	ky-2-propanol on hazard be classified as aspira	ational.	
	pentan-2-one on hazard; evaluatio	n Not applicable	
Aspirati	bons, C9, aromatics on hazard fatal if swallowed an	d enters airways.	
	l experience/human		

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Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

#### **Overall Assessment on CMR properties**

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

#### **SECTION 12: Ecological information**

Classification according to Regulation (EC) No 1272/2008 [CLP] Do not allow to enter into surface water or drains. 12.1. Toxicity **Xylene** Fish toxicity, LC50, fish: 2,6 mg/l (96 h) Method: OECD 203 Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 4,6 mg/l (72 h) Method: OECD 201 Algae toxicity, EC50, Pseudokirchneriella subcapitata: 4,6 mg/l (72 h) Method: OECD 201 Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout) (96 h) Method: OECD 203 Daphnia toxicity, IC50, Daphnia magna: 1 mg/l (24 h) Method: OECD 202 Algae toxicity, EC50, Selenastrum capricornutum: 2,2 mg/l (73 h) Method: OECD 201 Daphnia toxicity, growth test (Eb-Cx) 10%", Daphnia magna: 1,91 mg/l (21 d) Method: OECD 211 Bacteria toxicity, NOEC, Activated sludge: 16 mg/l (28 t) Method: OECD 301 F ethylbenzene Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 4,2 mg/l (96 h) Daphnia toxicity, EC50, Daphnia magna (Big water flea) 1,8 - 2,4 mg/l (48 h) Algae toxicity, EC50, Skeletonema costatum: 4,9 mg/l (72 h) Algae toxicity, EC50, Pseudokirchneriella subcapitata: 7,2 mg/l (48 h) Shellfish Toxicity, LC50, Mysidopsis bahia: > 5,2 mg/l (48 h) Toxicity of Microoganisms, EC50, microorganisms: 96 mg/l (24 h) 2,6-dimethylheptan-4-one Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 30 mg/l (96 h) Method: OECD 203 Daphnia toxicity, EC50: 37,2 mg/l (48 h) Method: OECD 202 Bacteria toxicity, LC/EC/IC 50: > 100 mg/l ; evaluation slightly toxic estimated Algae toxicity, LC/EC/IC 50 10 - 100 mg/l; evaluation Harmful Algae toxicity, EC50, Pseudokirchneriella subcapitata: 37,3 mg/l (72 h) Method: OECD 201 1-methoxy-2-propanol Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 1 mg/l (96 h) Method: OECD 203 Daphnia toxicity, EC50, Daphnia magna 21,1 - 25,9 mg/l (48 h) Method: ESR-ES-15 Fish toxicity, LC50, Leuciscus idus (golden orfe) 4,6 - 10 mg/l (96 h) Method: DIN 38412 / part 15 Algae toxicity, ErC50, Pseudokirchneriella subcapitata: > 1 mg/l (7 d) Acute aquatic toxicity evaluation Based on available data, the classification criteria are not met. Fish toxicity, LC50, Pimephales promelas (fathead minnow): 20,8 mg/l (96 h) Bacteria toxicity, IC50, Activated sludge: 1 mg/l (3 h) Method: OECD 209

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4-methylpentan-2-one Fish toxicity, LC50, Danio rerio (Zebrabärbling) (96 h) Method: OECD 203 Static test						
Daphn Metho	Daphnia toxicity, EC50, Daphnia magna (Big water flea): > 200 mg/l (48 h) Method: OECD 202					
Algae end; R	Static test Algae toxicity, Lemna gibba (Bucklige Wasserlinse): > 146 mg/l (7 d) end; Rate of growth Bacteria toxicity, EC50, Pseudomonas putida: 275 mg/l (16 h)					
Daphn Metho	Hydrocarbons, C9, aromatics Daphnia toxicity, EL50, Daphnia magna: 3,2 mg/l (48 h) Method: OECD 202 Algae toxicity, EL50, Pseudokirchneriella subcapitata: 3,8 mg/l (72 h)					
Metho Fish to	Method: OECD 201 Fish toxicity, LL50:, Oncorhynchus mykiss (Rainbow trout): 9,2 mg/l (96 h) Method: OECD 203					
	rm Ecotoxicity					
-	to aquatic life with lo	na lasting effects				
		ng lasting ellects.				
Metho	d: OECD 201	dokirchneriella subcapitata: 4,36 mg/l 1.3 mɑ/l (56 d)	(73 h)			
Daphn Metho	Fish toxicity, NOEC, fish: > 1,3 mg/l (56 d) Daphnia toxicity, NOEC, Daphnia pulex (water flea): 1,17 mg/l (7 d) Method: US EPA 600/4-91-003 Daphnia toxicity, EL50, Daphnia magna: 2,9 mg/l (21 d) Method: OECD 211 Algae toxicity, EC50, Pseudokirchneriella subcapitata: 2,2 mg/l (73 h) Method: OECD 201 Daphnia toxicity, LOEC, Daphnia magna (Big water flea): 3,16 mg/l (21 d) Method: OECD 211					
Metho Algae						
Daphn						
Metho	Algae toxicity, growth test (Eb-Cx) 10%", Pseudokirchneriella subcapitata: 0,72 mg/l (73 h) Method: OECD 201					
Daphn Bacter Algae	ia toxicity, NOEC, Ce ia toxicity, LC50, Cer ia toxicity, EC50, Nitr toxicity, NOEC, Pseu	riodaphnia dubia (Wasserfloh): 0,96 r iodaphnia dubia (Wasserfloh): 3,6 mg osomonas sp: 96 mg/l (24 h) dokirchneriella subcapitata: 3,4 mg/l riodaphnia dubia (Wasserfloh): 1,7 m	/l (7 d) (96 h)			
1-metho Algae	oxy-2-propanol toxicity, ErC50, Pseud	dokirchneriella subcapitata: > 1 mg/l aluation Based on available data, the	(7 d)			
Daphn	d: OECD 211	phnia magna (Big water flea) 30 - 35	mg/l (21 d)			
Algae	arbons, C9, aromatics toxicity, NOEC, Pseu d: OECD 201	dokirchneriella subcapitata: 0,07 mg/l	(72 h)			
12.2. Persist	ence and degradabi	lity	*			
Metho Biodeg	tence and degradabil d: Rapid photochemi gradation: 98 percent y biodegradable (acc	cal oxidation in air				
ethylber Biodeg		0 - 80 percent (28 d); evaluation Read	dily biodegradable (according to OECD criteria)			

Article Print d Versio	late:	495 19.12.2019 7.7	Epoxy-Verdünner Revision date: 14.12.20 Issue date: 14.12.2019		
	Persiste Biodegr		ty: evaluation Rapid photo (20 d); evaluation Readily	tochemical oxidation in air / biodegradable (according to OECD criteria)	
	Biodegr Method: Persiste	y-2-propanol adation: 96 percent OECD 301E ence and degradabili available		v biodegradable (according to OECD criteria).	
	Biodegr	pentan-2-one adation: 83 percent OECD 301F	(28 d); evaluation Readily	v biodegradable (according to OECD criteria).	
	Biodegr			ccording to OECD criteria).	
12.3.	Bioaccur	nulative potential			
			anol/water (log KOW): 3,49	9	
		tion coefficient n-oct	anol/water (log KOW): 3,6		
	Distribut		anol/water (log KOW): eva	aluation Little bioaccumulation	
	Distribut		anol/water (log KOW): < 1	; evaluation The product has a low bioaccumulation potential	
	<ul> <li>4-methylpentan-2-one</li> <li>Partition coefficient: n-octanol/water: evaluation Bioaccumulation is not to be expected.</li> <li>Distribution coefficient n-octanol/water (log KOW): 1,9</li> <li>Method: OECD 117</li> </ul>				
Hydrocarbons, C9, aromatics Distribution coefficient n-octanol/water (log KOW): 3,7 - 4,5					
	Bioconcentration factor (BCF)				
		y-2-propanol entration factor (BC	F): 3,16		
12.4.	<b>Mobility</b>	in soil			
		valuation Absorbs sl evaluation Floats c			
	soil: e	hylheptan-4-one valuation Absorbed evaluation Floats c			
	soil: e	y-2-propanol valuation Highly mol evaluation The pro	bile in the ground duct is insoluble in water.		
	Air: ev Water:	pentan-2-one valuation Moderately evaluation The pro valuation Weak ads	duct is water soluble.		
	soil:	bons, C9, aromatics available			
12.5		of PBT and vPvB as	ssessment		
				B criteria according to REACH, annex XIII.	
12.6.	Other ad	verse effects nation available.			
SEC	TION 13:	Disposal conside	erations		

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13.1.	Waste treatment methods					
	Appropriate disposal / Product					
	Recommendation					
	Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.					
	List of proposed waste codes/waste designations in accordance with EWC 140603* other solvents and solvent mixtures *Hazardous waste according to Directive 2008/98/EC (waste framework directive).					
	Appropriate disposal / Package Recommendation					
	Non-conta	aminated packages	may be recycled. Vessels not properly emptied are special waste.			
SEC	TION 14:	Transport inform	nation			
14.1.	UN numb	er				
			UN 1993			
14.2.		r shipping name				
	Land trans	sport (ADR/RID):	Flammable liquid, n.o.s. (4-METHYLPENTAN-2-ONE)			
	Sea trans	port (IMDG):	FLAMMABLE LIQUID, N.O.S.			
			(4-METHYLPENTAN-2-ONE)			
	Air transpo	ort (ICAO-TI / IATA-	-DGR): Flammable liquid, n.o.s. (4-METHYLPENTAN-2-ONE)			
14.3.	Transpor	t hazard class(es)				
			3			
14.4.	.4. Packing group		П			
14.5.	Environm	nental hazards				
	Land trans	sport (ADR/RID)	not applicable			
	Marine po	llutant	not applicable			
14.6.	Special precautions for user					
	Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage. Advices on safe handling: see parts 6 - 8					
	Further information					
	Land transport (ADR/RID)					
		triction code	D/E			
	Sea trans	port (IMDG)				
	EmS-No.	port (	F-E, S-E			
14.7.	Transport in bulk according to Annex II of Marpol and the IBC Code					
	not applicable					
SEC	TION 15:	Regulatory inform	mation			
			nental regulations/legislation specific for the substance or mixture			
	EU legislation					
	Directive 2010/75/EU on industrial emissions					
	VOC-value (in g/L): 855					
	NI . 41 I					

National regulations

#### **Restrictions of occupation**

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

#### 15.2. Chemical Safety Assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

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EC No.		Designation			REACH No.	
CAS No 215-535 1330-20	-7	Xylene			01-2119488216-32	
1330-20-7 918-668-5 64742-95-6		Hydrocarbons,	C9, aromatics		01-2119455851-35	
203-539 107-98-2		1-methoxy-2-propanol ethylbenzene			01-2119457435-35 01-2119489370-35	
202-849 100-41-4	-4					
SECTION 16	: Other infor	mation				
Full text	t of classificat	tion in section	3			
	q. 2 / H225		nable liquids	Highly fla	ammable liquid and vapour.	
	x. 4 / H332		toxicity (inhalative)		if inhaled.	
Eve Irrit.	2 / H319		is eye damage/eye irritation	Causes	serious eye irritation.	
	E 3 / H335		-single exposure		ise respiratory irritation.	
	ox. 4 / H312		toxicity (dermal)		in contact with skin.	
	. 2 / H315		orrosion/irritation		skin irritation.	
	E 2 / H373		-repeated exposure	Mav cau	ise damage to organs (or state all	
				organs a repeated is conclu	affected, if known) through prolonged or d exposure (state route of exposure if it usively proven that no other routes of e cause the hazard).	
Asp. Tox	(. 1 / H304	Aspira	tion hazard		fatal if swallowed and enters airways.	
	q. 3 / H226		nable liquids		ble liquid and vapour.	
	E 3 / H336		-single exposure		ise drowsiness or dizziness.	
Aquatic	Chronic 2 / H4		dous to the aquatic environme		aquatic life with long lasting effects.	
Classific Flam. Lia Skin Irrit Eye Irrit. STOT SI STOT SI STOT RI Asp. Tox	q. 2 2 E 3 E 3 E 2	res and used e Flamn Skin c Seriou STOT STOT STOT Aspira	valuation method according to nable liquids orrosion/irritation is eye damage/eye irritation -single exposure -single exposure -repeated exposure tion hazard dous to the aquatic environme	On basis Calculat Calculat Calculat Calculat Calculat Calculat	to 1272/2008 [CLP] s of test data. ion method. ion method. ion method. ion method. ion method. ion method. ion method.	
	ations and ac	cronyms				
ADR			ement concerning the Internat	ional Carriage of	Dangerous Goods by Road	
OEL			xposure Limit Value			
BLV		Biological Limit				
CAS		Chemical Abstr				
			Classification, Labelling and Packaging			
CMR		•	Jutagenic and Reprotoxic			
DIN			e for Standardization / German	n industrial standa	ard	
DNEL		Derived No-Effe	ect Level			
EAKV		European Was	te Catalogue Directive			
EC		Effective Conce				
EC		European Com	munity			
EN						
IATA-DO	IATA-DGR International Air Transport Association – Dangerous G		gerous Goods Re	gulations		
IBC Cod ICAO-TI		International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air				
IMDG Co			aritime Code for Dangerous G	oods		
ISO			ganization for Standardization			
LC		Lethal Concent	-			
LD		Lethal Dose				
MARPO			on: The International Convent	ion for the Preven	tion of Pollution from Ships	
	MARPOL Maritime Pollution: The International Convention for the Prevention of Pollution from Ships					

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OECD	•	nisation for Economic Cooperation and	d Development		
PBT	persistent, bioaccumulative, toxic				
PNEC	Predicted No Effect Concentration				
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals RID Regulations concerning the International Carriage of Dangerous Goods by					
				UN	UN United Nations
VOC	VOC Volatile Organic Compounds				
vPvB	very p	persistent and very bioaccumulative			

#### **Further information**

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

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

\* Data changed compared with the previous version