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

1.1 Product identifier

2K-Epoxi Varioprimer 865

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

Relevant identified uses

Products Category [PC]

PC 9 - Coatings and paints, fillers, putties, thinners.

Uses advised against

There are no information about relevant identified uses of the product according to the Regulation (EC) No. 1907/2006 (REACH-Regulation), which are advised against. For using the product observe the information in the Technical data sheet of the product.

1.3 Details of the supplier of the safety data sheet

Supplier

Brillux GmbH & Co KG
www.brillux.de

Street : Weseler Straße 401

Postal code/City : D - 48163 Münster

Telephone : +49 (0)251-7188-0

Telefax : +49 (0)251-7188-280

Information contact :

Electronic mail address of the well-informed person for safety data sheets:sdb@brillux.de

1.4 Emergency telephone number

Outside the business hours (9 a.m. to 5 p.m.):
(Giftinformationszentrum-Nord, Göttingen, consultation in german or english language)
Telephone: +49 (0)551-19240.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Flam. Liq. 3 ; H226 - Flammable liquids : Category 3 ; Flammable liquid and vapour.
Skin Irrit. 2 ; H315 - Skin corrosion/irritation : Category 2 ; Causes skin irritation.
Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.
Skin Sens. 1 ; H317 - Skin sensitisation : Category 1 ; May cause an allergic skin reaction.
STOT SE 3 ; H335 - STOT-single exposure : Category 3 ; May cause respiratory irritation.
STOT SE 3 ; H336 - STOT-single exposure : Category 3 ; May cause drowsiness or dizziness.
STOT RE 2 ; H373 - STOT-repeated exposure : Category 2 ; May cause damage to organs through prolonged or repeated exposure.
Aquatic Chronic 3 ; H412 - Hazardous to the aquatic environment : Chronic 3 ; Harmful to aquatic life with long lasting effects.

2.2 Label elements

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

Hazard pictograms

Flame (GHS02) · Health hazard (GHS08) · Corrosion (GHS05) · Exclamation mark (GHS07)

Signal word

Danger

Hazard components for labelling

REACTION PRODUCT:BISPHENOL A-(EPICHLORHYDRIN) ; CAS No. : 25068-38-6

REACTION MASS OF ETHYLBENZENE AND XYLENE

2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1

REACTION PRODUCTS OF FATTY ACIDS, TALL-OIL, COMPOUNDS WITH OLEYLAMINE AND FATTY ACIDS, C18-UNSATURATED, TRIMERS, COMPOUNDS WITH OLEYLAMINE

Hazard statements

H226	Flammable liquid and vapour.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mists.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P501	Dispose of contents/container to approved disposal company or local collection.

Special rules for supplemental label elements for certain mixtures

EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

2.3 Other hazards

The product does not contain any substances with endocrine-disrupting properties according to Article 59 Paragraph 1 or substances with endocrine-disrupting properties according to Regulations (EU) 2017/2100 or (EU) 2018/605.
The product does not contain any substances, which fulfil the criteria for PBT or vPvB in accordance with the Annex XIII of the Regulation (EC) No 1907/2006 (REACH-Regulation).

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description

Epoxy resin primer.
Composition:
Epoxy resin, titanium dioxide (depending on hue), inorganic/organic coloured pigments (depending on hue), anti-corrosive pigments, extenders, aromatic hydrocarbons, ester, alcohols, ketone and additives.

Hazardous ingredients

TITANIUM DIOXIDE ; EC No. : 236-675-5; CAS No. : 13463-67-7

Weight fraction : ≥ 1 - < 20 %

Classification 1272/2008 [CLP] : Carc. 2 ; H351i

REACTION PRODUCT:BISPHENOL A-(EPICHLORHYDRIN) ; EC No. : 500-033-5; CAS No. : 25068-38-6
Weight fraction : ≥ 15 - < 20 %
Classification 1272/2008 [CLP] : Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Eye Irrit. 2 ; H319 EUH205

HYDROCARBONS, C9, AROMATICS ; REACH No. : 01-2119455851-35 ; EC No. : 918-668-5
Weight fraction : ≥ 10 - < 15 %
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 STOT SE 3 ; H335 STOT SE 3 ; H336 Aquatic Chronic 2 ; H411 EUH066

REACTION MASS OF ETHYLBENZENE AND XYLENE ; REACH No. : 01-2119486136-34 ; EC No. : 905-588-0
Weight fraction : ≥ 10 - < 15 %
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 STOT RE 2 ; H373 Acute Tox. 4 ; H312 Acute Tox. 4 ; H332 Skin Irrit. 2 ; H315 Eye Irrit. 2 ; H319 STOT SE 3 ; H335

N-BUTYL ACETATE ; REACH No. : 01-2119485493-29 ; EC No. : 204-658-1; CAS No. : 123-86-4
Weight fraction : ≥ 1 - < 5 %
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 STOT SE 3 ; H336 EUH066

2-METHYLPROPAN-1-OL ; REACH No. : 01-2119484609-23 ; EC No. : 201-148-0; CAS No. : 78-83-1
Weight fraction : ≥ 3 - < 5 %
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Eye Dam. 1 ; H318 Skin Irrit. 2 ; H315 STOT SE 3 ; H335 STOT SE 3 ; H336

5-METHYLHEXAN-2-ONE ; REACH No. : 01-2119472300-51 ; EC No. : 203-737-8; CAS No. : 110-12-3
Weight fraction : ≥ 1 - < 5 %
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Acute Tox. 4 ; H332

1-METHOXY-2-PROPANOL ; REACH No. : 01-2119457435-35 ; EC No. : 203-539-1; CAS No. : 107-98-2
Weight fraction : ≥ 1 - < 5 %
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 STOT SE 3 ; H336

TRIZINC BIS(ORTHOPHOSPHATE) ; REACH No. : 01-2119485044-40 ; EC No. : 231-944-3; CAS No. : 7779-90-0
Weight fraction : ≥ 1 - < 2,5 %
Classification 1272/2008 [CLP] : Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410

REACTION PRODUCTS OF FATTY ACIDS, TALL-OIL, COMPOUNDS WITH OLEYLAMINE AND FATTY ACIDS, C18-UNSATURATED, TRIMERS, COMPOUNDS WITH OLEYLAMINE ; REACH No. : 01-2120101675-63 ; EC No. : 916-741-6
Weight fraction : ≥ 0,1 - < 0,5 %
Classification 1272/2008 [CLP] : STOT RE 2 ; H373 Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 Skin Sens. 1A ; H317

Additional information

The used hydrocarbons contain no benzene or benzene in concentrations less than 0.1 percent by weight and fulfil therefore the default(handicap) of the remark P to the appendix VI of the order (EC) No. 1272/2008 (GHS order).

For full text of Hazard- and EU Hazard-statements: 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 attention. Immediately remove all contaminated clothing. In case of unconsciousness: lay on side - call a doctor. Never give anything by mouth to an unconscious person. If medical advice is needed, have product container or label at hand.

Following inhalation

When symptoms persists, take the casualty into the fresh air and keep warm. Irregular breathing/no breathing: artificial respiration. Call a doctor and tell him the exactly substance.

In case of skin contact

Take off immediately all contaminated clothes. Wash away with soap and water and rinse. Do NOT use solvents or thinners. If skin irritation continues, consult a doctor.

After eye contact

Remove contact lenses, keep eyelids open. Rinse open eye immediately with plenty of running water. Seek medical

adivce if complaint continues.

Following ingestion

Drink water in small draught. Keep at rest. Do not induce vomiting. When swallowed immediately consult and show packing or label to physician.

4.2 Most important symptoms and effects, both acute and delayed

Potential symptoms: Headache, dizziness, giddiness, skin irritation, eye iriitation and irritation to respiratory tract are possible. Allergic symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

In case of fire: Use alcohol resistant foam, CO2, powders or water spray for extinction.

Unsuitable extinguishing media

In case of fire: Do not use waterjet for extinction.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

5.3 Advice for firefighters

Special protective equipment for firefighters

At a fire caused by the product a breathing apparatus with an independent source of air is to have ready and to use if necessary for the firefighting. Personnel should wear protective clothings.

5.4 Additional information

Cool endangered containers with water in case of fire. Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Refer to protective measures listed in sections 7 and 8. Keep away from ignition sources on account of the organic solvent content and air room well. Do not inhale vapours. Avoid contact with eyes and skin.

6.2 Environmental precautions

Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations. Holding polluted washing water back and disposing of duly.

6.3 Methods and material for containment and cleaning up

For cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). The areas concerned cleaning with a customary water based cleaning agent, not using organic solvents if possible.

6.4 Reference to other sections

See Section 7 for information on safe handling.
You find information about the safety equipment of persons in the section 8,
information about the refuse disposal in section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Ensure a good ventilation in room and working area. Prevent the creation of inflammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the OEL (=Occupational Exposure Limit). Only use the material in places where open light, fire and other flammable sources can be kept away. For personal protection see Section 8. Avoid contact with skin and eyes. Read label before use.

Measures to prevent fire

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Avoid concentrations which form ignitable or explosive vapour and air mixtures. Likewise, avoid any concentration of vapour above the MAC-valve. Keep away from ignition sources - No smoking. Ground/bond container and receiving equipment. Use explosion-proof pipes, electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Measures to prevent aerosol and dust generation

Do not breathe gas or spray.

Advices on general occupational hygiene

While working do not eat , drink or smoke. Wash hands and face before breaks and after work and take a shower if necessary. Immediately remove all contaminated clothing.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Electrical equipment should be protected to the appropriate standard. Floors should be of the conducting type. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Never use pressure to empty: container is not a pressure vessel. No smoking. Prevent unauthorized access. Do not store the product in lounge room. Keep only in the original container. Keep out of the reach of children. Store in a well-ventilated place. Keep cool.

Hints on joint storage

Keep away from oxidizing agents, from strongly alkaline and strongly acid materials. Store away from foodstuffs.

Storage class (TRGS 510) : 3

Further information on storage conditions

Keep container tightly sealed. Store at 5°-35°C. Containers should be kept dry and sealed.

7.3 Specific end use(s)

For using the product observe the information in the Technical data sheet of the product.

Industrial sector specific solutions

GISCODE : Product code in accordance with GISBAU (hazardous materials information system of the German professional associations of the building and construction industry) for epoxy resin coating cloths (GISCODE): RE70.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

HYDROCARBONS, C9, AROMATICS

Limit value type (country of origin) :	TRGS 900 (D)
Parameter :	Group limit for the calculation of the occupational exposure limit for hydrocarbon mixtures (see section 2.9 of Technical Rule 900).
Limit value :	50 mg/m³
Version :	

REACTION MASS OF ETHYLBENZENE AND XYLENE

Limit value type (country of origin) :	TRGS 900 (D)
Limit value :	100 ppm / 440 mg/m³
Peak limitation :	4
Remark :	Xylol
Version :	01.10.1993
Limit value type (country of origin) :	TRGS 900 (D)
Limit value :	20 ppm / 88 mg/m³
Peak limitation :	2(II)
Remark :	Ethylbenzol H, Y, DFG

Version : 01.10.1993
Limit value type (country of origin) : STEL (EC)
Limit value : 200 ppm / 884 mg/m³
Remark : Ethylbenzol H
Version :
Limit value type (country of origin) : TWA (EC)
Limit value : 100 ppm / 442 mg/m³
Remark : Ethylbenzol H
Version :

N-BUTYL ACETATE ; CAS No. : 123-86-4
Limit value type (country of origin) : TRGS 900 (D)
Limit value : 62 ppm / 300 mg/m³
Peak limitation : 2(I)
Remark : Y
Version : 02.07.2021
Limit value type (country of origin) : STEL (EC)
Limit value : 150 ppm / 723 mg/m³
Version : 20.06.2019
Limit value type (country of origin) : TWA (EC)
Limit value : 50 ppm / 241 mg/m³
Version : 20.06.2019

2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1
Limit value type (country of origin) : TRGS 900 (D)
Limit value : 100 ppm / 310 mg/m³
Peak limitation : 1(I)
Remark : Y
Version : 02.07.2021

5-METHYLHEXAN-2-ONE ; CAS No. : 110-12-3
Limit value type (country of origin) : TRGS 900 (D)
Limit value : 20 ppm / 95 mg/m³
Version : 02.07.2021
Limit value type (country of origin) : TWA (EC)
Limit value : 20 ppm / 95 mg/m³
Version : 20.06.2019

1-METHOXY-2-PROPANOL ; CAS No. : 107-98-2
Limit value type (country of origin) : TRGS 900 (D)
Limit value : 100 ppm / 370 mg/m³
Peak limitation : 2(I)
Remark : Y
Version : 02.07.2021
Limit value type (country of origin) : STEL (EC)
Limit value : 150 ppm / 568 mg/m³
Remark : Skin
Version : 20.06.2019
Limit value type (country of origin) : TWA (EC)
Limit value : 100 ppm / 375 mg/m³
Remark : Skin
Version : 20.06.2019

SILICON DIOXIDE ; CAS No. : 7631-86-9
Limit value type (country of origin) : TRGS 900 (D)
Parameter : E: inhalable fraction
Limit value : 4 mg/m³
Remark : Y
Version : 02.07.2021

FORMALDEHYDE ; CAS No. : 50-00-0

Limit value type (country of origin) :	TRGS 900 (D)
Limit value :	0,3 ppm / 0,37 mg/m³
Peak limitation :	2(I)
Remark :	X, Y, Sh
Version :	02.07.2021
Limit value type (country of origin) :	STEL (EC)
Limit value :	0,74 mg/m³ / 0,6 ppm
Remark :	Skin Sens.
Version :	20.06.2019
Limit value type (country of origin) :	TWA (EC)
Limit value :	0,37 mg/m³ / 0,3 ppm
Remark :	Skin Sens.
Version :	20.06.2019

Remark

Short time value (STEL): Excess factor 2 (II) according to the german TRGS 900.
Taking into account the details mentioned in the TRGS 900 for the supervision of AGW.

Biological limit values

REACTION MASS OF ETHYLBENZENE AND XYLENE

Limit value type (country of origin) :	TRGS 903 (D)
Parameter :	Xylene / Whole blood (B) / End of exposure or end of shift
Limit value :	0,15 mg/dl
Remark :	Xylol
Version :	01.10.1993
Limit value type (country of origin) :	TRGS 903 (D)
Parameter :	Methylhippuric (toluric) acid (all isomers) / Urine (U) / End of exposure or end of shift
Limit value :	2 g/l
Remark :	Xylol
Version :	01.10.1993
Limit value type (country of origin) :	TRGS 903 (D)
Parameter :	Ethylbenzene / Whole blood (B) / End of exposure or end of shift
Limit value :	1 mg/l
Remark :	Ethylbenzol
Version :	01.10.1993
Limit value type (country of origin) :	TRGS 903 (D)
Parameter :	Mandelic acid plus phenylglyoxylic acid / Urine (U) / End of exposure or end of shift
Limit value :	800 mg/g Creatinine
Remark :	Ethylbenzol
Version :	01.10.1993

1-METHOXY-2-PROPANOL ; CAS No. : 107-98-2

Limit value type (country of origin) :	TRGS 903 (D)
Parameter :	1-methoxypropan-2-ol / Urine (U) / End of exposure or end of shift
Limit value :	15 mg/l
Version :	04.05.2021

DNEL-/PNEC-values

DNEL/DMEL

HYDROCARBONS, C9, AROMATICS

Limit value type :	DNEL/DMEL (Consumer)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	11 mg/kg
Assessment factor :	1 D
Limit value type :	DNEL/DMEL (Consumer)
Exposure route :	Inhalation

Exposure frequency :	Long-term
Limit value :	32 mg/m³
Limit value type :	DNEL/DMEL (Consumer)
Exposure route :	Oral
Exposure frequency :	Long-term
Limit value :	11 mg/kg
Assessment factor :	1 D
Limit value type :	DNEL/DMEL (Professional)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	25 mg/kg
Assessment factor :	1 D
Limit value type :	DNEL/DMEL (Professional)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	150 mg/m³

REACTION MASS OF ETHYLBENZENE AND XYLENE

Limit value type :	DNEL Consumer (local)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	= 65,3 mg/m³
Limit value type :	DNEL Consumer (local)
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	= 260 mg/m³
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Oral
Exposure frequency :	Long-term
Limit value :	= 1,6 mg/kg
Assessment factor :	1 D
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	= 14,8 mg/m³
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	= 260 mg/m³
Limit value type :	DNEL worker (local)
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	= 289 mg/m³
Limit value type :	DNEL worker (local and systemic)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	= 221 mg/m³
Limit value type :	DNEL worker (systemic)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	= 211 mg/m³
Limit value type :	DNEL worker (systemic)
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	= 442 mg/m³
Limit value type :	DNEL worker (systemic)

Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	= 180 mg/kg
Assessment factor :	1 D

N-BUTYL ACETATE ; CAS No. : 123-86-4

Limit value type :	DNEL Consumer (systemic)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	102,34 mg/m³
Limit value type :	DNEL/DMEL (Industrial)
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	96 mg/kg
Limit value type :	DNEL/DMEL (Industrial)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	48 mg/m³
Limit value type :	DNEL/DMEL (Industrial)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	7 mg/kg
Limit value type :	DNEL/DMEL (Industrial)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	480 mg/m³

2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1

Limit value type :	DNEL/DMEL (Consumer)
Exposure route :	Oral
Exposure frequency :	Long-term
Limit value :	25 mg/kg
Assessment factor :	1 D
Limit value type :	DNEL/DMEL (Consumer)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	55 mg/m³
Limit value type :	DNEL/DMEL (Industrial)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	310 mg/m³

5-METHYLHEXAN-2-ONE ; CAS No. : 110-12-3

Limit value type :	DNEL/DMEL (Industrial)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	8 mg/kg
Assessment factor :	1 D
Limit value type :	DNEL/DMEL (Industrial)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	95 mg/m³
Limit value type :	DNEL/DMEL (Industrial)
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	818 mg/m³

1-METHOXY-2-PROPANOL ; CAS No. : 107-98-2

Limit value type :	DNEL/DMEL (Industrial)

Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 50,6 mg/kg
Limit value type : DNEL/DMEL (Industrial)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 369 mg/m³
Limit value type : DNEL/DMEL (Industrial)
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : 553,5 mg/m³

TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0
Limit value type : DNEL/DMEL (Industrial)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 5 mg/m³
Limit value type : DNEL/DMEL (Industrial)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 83 mg/kg

PNEC

REACTION MASS OF ETHYLBENZENE AND XYLENE
Limit value type : PNEC (Aquatic, freshwater)
Exposure route : Water (Including sewage plant)
Limit value : 0,327 mg/l
Limit value type : PNEC (Aquatic, marine water)
Exposure route : Water (Including sewage plant)
Limit value : = 0,327 mg/l
Limit value type : PNEC (Sediment, freshwater)
Exposure route : Water (Including sewage plant)
Limit value : 12,64 mg/kg
Limit value type : PNEC (Sediment, marine water)
Exposure route : Water (Including sewage plant)
Limit value : = 12,64 mg/kg
Limit value type : PNEC soil
Exposure route : Soil
Limit value : 2,31 mg/kg
Limit value type : PNEC (Sewage treatment plant)
Exposure route : Water (Including sewage plant)
Limit value : 6,58 mg/l

N-BUTYL ACETATE ; CAS No. : 123-86-4
Limit value type : PNEC (Aquatic, freshwater)
Exposure route : Water (Including sewage plant)
Limit value : 0,18 mg/l
Limit value type : PNEC (Aquatic, intermittent release)
Exposure route : Water (Including sewage plant)
Limit value : 0,36 mg/l
Limit value type : PNEC (Aquatic, marine water)
Exposure route : Water (Including sewage plant)
Limit value : 0,018 mg/l
Limit value type : PNEC (Sediment, freshwater)
Exposure route : Soil
Limit value : 0,981 mg/kg
Limit value type : PNEC (Sediment, marine water)
Exposure route : Soil

Limit value :	0,0981 mg/kg
Limit value type :	PNEC soil
Exposure route :	Soil
Limit value :	0,0903 mg/kg
Limit value type :	PNEC (Sewage treatment plant)
Exposure route :	Water (Including sewage plant)
Limit value :	35,6 mg/l

2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1

Limit value type :	PNEC (Aquatic, freshwater)
Exposure route :	Water (Including sewage plant)
Limit value :	0,4 mg/l
Limit value type :	PNEC (Aquatic, marine water)
Exposure route :	Water (Including sewage plant)
Limit value :	0,04 mg/l
Limit value type :	PNEC (Sediment, freshwater)
Exposure route :	Soil
Limit value :	1,52 mg/kg
Limit value type :	PNEC (Sediment, marine water)
Exposure route :	Soil
Limit value :	0,125 mg/kg
Limit value type :	PNEC soil
Exposure route :	Soil
Limit value :	0,0699 mg/kg
Limit value type :	PNEC (Sewage treatment plant)
Exposure route :	Water (Including sewage plant)
Limit value :	10 mg/l

5-METHYLHEXAN-2-ONE ; CAS No. : 110-12-3

Limit value type :	PNEC (Industrial)
Exposure route :	Water (Including sewage plant)
Limit value :	0,1 mg/l
Limit value type :	PNEC (Industrial)
Exposure route :	Soil
Limit value :	0,166 mg/kg

1-METHOXY-2-PROPANOL ; CAS No. : 107-98-2

Limit value type :	PNEC (Industrial)
Exposure route :	Water (Including sewage plant)
Exposure time :	Long-term
Limit value :	10 mg/l
Limit value type :	PNEC (Industrial)
Exposure route :	Water (Including sewage plant)
Exposure time :	Short-term
Limit value :	100 mg/l
Limit value type :	PNEC (Industrial)
Exposure route :	Soil
Limit value :	2,47 mg/kg

TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0

Limit value type :	PNEC (Industrial)
Exposure route :	Water (Including sewage plant)
Limit value :	20,6 µg/l
Limit value type :	PNEC (Industrial)
Exposure route :	Soil
Limit value :	35,6 mg/kg

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust

ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL (=Occupational Exposure Limit), suitable respiratory protection must be worn. Observe data available of section 7.

Personal protection equipment

Eye/face protection

Use protection glasses in case of spattering.

Skin protection

Hand protection

At use as agreed a protective gloves from nitrile rubber with a material thickness 0,38 mm has to be used. Notes of the manufacturer have to be taken into account. Penetration time of the glove material: > = 60 min.
By longer or repeated contact the penetration times can be considerably shorter. The protective gloves should replaced after the first wear out or a damage of the gloves. Gloves of cotton should be used under the gloves of polychloropren or nitrile rubber. After washing hands replace lost skin fat by fat containing skin creams.

Body protection

Using protective clothing. If the product must sprayed, use a disposable protective suit.

Respiratory protection

Breathing protection equipment is not required in good ventilated places. A respiratory protection (combination filter A2-P3) is required by inadequate ventilation and by spray application. Do not breathe gas or spray.

General information

Avoid contact with eyes and skin. Immediately remove all contaminated clothing. Do not eat or drink during work - no smoking. Wash hands before breaks and after work. Ensure a good ventilation in room and working area. Do not breathe gas or spray.

Environmental exposure controls

The product should not reach waters and the ground. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : conformable to product designation.

Odour

Smell of organic solvents.

Safety characteristics

Melting point/freezing point :	(1013 hPa)		No data available		
Initial boiling point and boiling range :	(1013 hPa)	approx.	120 - 200	°C	
Decomposition temperature :	(1013 hPa)		No data available		
Flash point :		>	23 - 60	°C	
Auto-ignition temperature :			No data available		
Lower explosion limit :			0,7	Vol-%	
Upper explosion limit :			11	Vol-%	
Vapour pressure :	(50 °C)	<	100	hPa	
Density :	(20 °C)		1,3 - 1,5	g/cm^3	
Solvent separation test :	(20 °C)	<	3	%	
Water solubility :	(20 °C)		practically insoluble		
pH :			No data available		
log P O/W :			No data available		
Flow time :	(20 °C)		60 - 65	s	DIN-cup 4 mm
Viscosity :	(23 °C)		No data available		
Kinematic viscosity :	(40 °C)	>	20,5	mm^2/s	
Relative vapour density :	(20 °C)		No data available		

VOC-value :	max.	500	g/l
Flammable liquids :	The product is ignitable.		
Particle Characterics :	not applicable		

9.2 Other information

Other physical and chemical data have not been determined.
The mentioned VOC value refers to the mixture of the product, incl. harder, ready for use.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangers connected by a possible reactivity of the product are known to proper handling and storage.

10.2 Chemical stability

Stable under recommended storage and handling conditions (see section 7).

10.3 Possibility of hazardous reactions

Vapours can form explosive mixtures with air.

10.4 Conditions to avoid

To avoid formation of ignitable vapour and air mixtures ensure good ventilation (inter alia extraction system). Keep away from frost, heat and direct sunlight.
Cleaning cloths saturated with solvent can ignite themselves. Therefore ensure safe disposal of waste.

10.5 Incompatible materials

No dangerous reaction known. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.6 Hazardous decomposition products

No dangerous decomposition product are known if stored and handled correctly. When exposed to high temperatures or in case of fire hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen, may produced.

SECTION 11: Toxicological information

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

Acute toxicity

Acute toxicity:
- Acute oral toxicity: No data available;
- Acute dermal toxicity: No data available;
- Acute inhalation toxicity: No data available.

Acute oral toxicity

Parameter :	ATEmix calculated
Exposure route :	Oral
Effective dose :	not relevant
Parameter :	LD50 (HYDROCARBONS, C9, AROMATICS)
Exposure route :	Oral
Species :	Rat
Effective dose :	> 6800 mg/kg
Parameter :	LD50 (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Exposure route :	Oral
Species :	Rat
Effective dose :	3523 - 4000 mg/kg
Parameter :	LD50 (N-BUTYL ACETATE ; CAS No. : 123-86-4)
Exposure route :	Oral
Species :	Rat
Effective dose :	10760 mg/kg
Parameter :	LD50 (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route :	Oral

Species : Rat
Effective dose : 2830 mg/kg
Parameter : LD50 (5-METHYLHEXAN-2-ONE ; CAS No. : 110-12-3)
Exposure route : Oral
Species : Rat
Effective dose : 5657 mg/kg
Parameter : LD50 (1-METHOXY-2-PROPANOL ; CAS No. : 107-98-2)
Exposure route : Oral
Species : Rat
Effective dose : 5660 mg/kg

Acute dermal toxicity

Parameter : ATEmix calculated
Exposure route : Dermal
Effective dose : 120417 mg/kg
Parameter : LD50 (HYDROCARBONS, C9, AROMATICS)
Exposure route : Dermal
Species : Rabbit
Effective dose : > 3400 mg/kg
Parameter : LD50 (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Exposure route : Dermal
Species : Rabbit
Effective dose : 12126 mg/kg
Parameter : LD50 (N-BUTYL ACETATE ; CAS No. : 123-86-4)
Exposure route : Dermal
Species : Rabbit
Effective dose : > 14000 mg/kg
Parameter : LD50 (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route : Dermal
Species : Rat
Effective dose : 3400 mg/kg
Exposure time : 4 h
Parameter : LD50 (5-METHYLHEXAN-2-ONE ; CAS No. : 110-12-3)
Exposure route : Dermal
Species : Guinea pig
Effective dose : > 8 g/kg
Parameter : LD50 (1-METHOXY-2-PROPANOL ; CAS No. : 107-98-2)
Exposure route : Dermal
Species : Rabbit
Effective dose : 9999,99 mg/kg

Acute inhalation toxicity

Parameter : ATEmix calculated
Exposure route : Inhalation (vapour)
Effective dose : 364,5 mg/l
Parameter : LC50 (HYDROCARBONS, C9, AROMATICS)
Exposure route : Inhalation
Species : Rat
Effective dose : > 10,2 mg/l
Exposure time : 4 h
Parameter : LC50 (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Exposure route : Inhalation (vapour)
Species : Rat
Effective dose : 6350 - 6700 ppm
Exposure time : 4 h
Parameter : LC50 (N-BUTYL ACETATE ; CAS No. : 123-86-4)
Exposure route : Inhalation

Species :	Rat
Effective dose :	23,4 mg/kg
Exposure time :	4 h
Parameter :	LC50 (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route :	Inhalation
Species :	Rat
Effective dose :	8000 ppm
Parameter :	LC50 (5-METHYLHEXAN-2-ONE ; CAS No. : 110-12-3)
Exposure route :	Inhalation
Species :	Rat
Effective dose :	3813 ppm
Exposure time :	6 h
Parameter :	LC50 (1-METHOXY-2-PROPANOL ; CAS No. : 107-98-2)
Exposure route :	Inhalation
Species :	Rat
Effective dose :	7360 ppm
Exposure time :	6 h

Corrosion

Irritation:
- On the eye: Causes serious eye damage.
- Respiratory: May cause irritation to the respiratory tract.
- On the skin: May cause irritation to the skin.

Respiratory or skin sensitisation

The product is labeled as skin sensitizing.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

The product is not classified as human germ cell mutagenic, carcinogenic or human reproductive toxic (CMR effects).

STOT-single exposure

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation, kidneys and liver damages, as well as leading the impairment of the central nervous system.
Symtoms and signs include headache: dizzines, fatique, muscular weakness, drowsiness and in extreme cases loss of consciouness.
The liquid splached in the eyes may cause irritation and reversible demage.

STOT-repeated exposure

May causes damage to the organs through prolonged or repeated exposure.
Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Aspiration hazard

The product contains substances, which are classified as apiration toxicity, category 1 (May be fatal if swallowed and enters airways), in accordance to the Regulation (EC) No. 1272/2008 (CLP-Regulation) in there pure form. Based on available data the classification criteria according to Regulation (EC) No 1272/2008 [CLP] are not fulfilled.

11.2 Information on other hazards

Endocrine disrupting properties

The product does not contain any substances with endocrine-disrupting properties according to Article 59 Paragraph 1 or substances with endocrine-disrupting properties according to Regulations (EU) 2017/2100 or (EU) 2018/605.

Other adverse effects

This product is unlikely to harm health, given normal and proper handling and hygenic precautions.

Additional information

The product is classified in toxicological terms on the basis of the results of the calculation procedure outlined within the Regulation (EC) No 1272/2008 (CLP-Regualtion), listed in sections 2 and 3.
At proper dealing and use as agreed the product does not cause any effects bad for health after our experiences and the information submitted to us.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter :	LC50 (HYDROCARBONS, C9, AROMATICS)
Species :	Oncorhynchus mykiss (Rainbow trout)
Effective dose :	9,2 mg/l
Exposure time :	96 h
Parameter :	LC50 (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Species :	Acute (short-term) fish toxicity
Evaluation parameter :	Oncorhynchus mykiss
Effective dose :	= 2,6 mg/l
Exposure time :	96 h
Parameter :	LC50 (N-BUTYL ACETATE ; CAS No. : 123-86-4)
Species :	Pimephales promelas (fathead minnow)
Effective dose :	18 mg/l
Exposure time :	96 h
Parameter :	LC50 (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Species :	Pimephales promelas (fathead minnow)
Effective dose :	1430 mg/l
Exposure time :	96 h
Parameter :	LC50 (5-METHYLHEXAN-2-ONE ; CAS No. : 110-12-3)
Effective dose :	159 mg/l
Exposure time :	96 h
Parameter :	LC50 (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Species :	Oncorhynchus mykiss (Rainbow trout)
Effective dose :	0,3 - 5,6 mg/l
Exposure time :	96 h

Acute (short-term) toxicity to crustacea

Parameter :	EC50 (HYDROCARBONS, C9, AROMATICS)
Species :	Daphnia magna (Big water flea)
Effective dose :	3,2 mg/l
Exposure time :	48 h
Parameter :	LC50 (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Species :	Acute (short-term) toxicity to crustacea
Evaluation parameter :	Daphnia magna
Effective dose :	= 1 mg/l
Exposure time :	24 h
Parameter :	EC50 (N-BUTYL ACETATE ; CAS No. : 123-86-4)
Species :	Daphnia magna (Big water flea)
Effective dose :	44 mg/l
Exposure time :	48 h
Parameter :	EC50 (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Species :	Daphnia magna (Big water flea)
Effective dose :	1100 mg/l
Exposure time :	48 h
Parameter :	EC50 (5-METHYLHEXAN-2-ONE ; CAS No. : 110-12-3)
Species :	Daphnia magna (Big water flea)
Effective dose :	> 100 mg/l
Exposure time :	48 h
Method :	OECD 202
Parameter :	EC50 (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Species :	Daphnia

Effective dose : 0,9 mg/l
Exposure time : 48 h

Chronic (long-term) toxicity to aquatic invertebrate

Parameter : NOEC (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Species : Daphnia magna (Big water flea)
Effective dose : 20 mg/l
Exposure time : 21 D
Parameter : NOEC (5-METHYLHEXAN-2-ONE ; CAS No. : 110-12-3)
Species : Daphnia magna (Big water flea)
Effective dose : > 91 mg/l
Method : OECD 211

Acute (short-term) toxicity to algae and cyanobacteria

Parameter : ErC50 (HYDROCARBONS, C9, AROMATICS)
Species : Pseudokirchneriella subcapitata
Effective dose : 2,6 - 2,9 mg/l
Exposure time : 72 h
Parameter : EC50 (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Species : Scenedesmus capricornutum
Evaluation parameter : Acute (short-term) toxicity to algae and cyanobacteria
Effective dose : = 2,2 mg/l
Exposure time : 73 h
Parameter : EC50 (N-BUTYL ACETATE ; CAS No. : 123-86-4)
Species : Desmodesmus subspicatus
Effective dose : 647,7 mg/l
Exposure time : 72 h
Parameter : EL50 (N-BUTYL ACETATE ; CAS No. : 123-86-4)
Species : Desmodesmus subspicatus
Effective dose : 200 mg/l
Parameter : EC50 (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Species : Pseudokirchneriella subcapitata
Effective dose : 632 mg/l
Exposure time : 72 h
Parameter : EL50 (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Species : Pseudokirchneriella subcapitata
Effective dose : 53 mg/l
Exposure time : 72 h
Parameter : EC50 (5-METHYLHEXAN-2-ONE ; CAS No. : 110-12-3)
Effective dose : > 100 mg/l
Exposure time : 72 h
Parameter : EC50 (5-METHYLHEXAN-2-ONE ; CAS No. : 110-12-3)
Species : Algae
Effective dose : > 100 mg/l
Exposure time : 72 h
Parameter : EC50 (TRIZINC BIS(ORTHOPHOSPHATE) ; CAS No. : 7779-90-0)
Species : Selenastrum capricornutum
Effective dose : 0,3 mg/l
Exposure time : 72 h

Sewage treatment plant

Parameter : Effects in sewage plants (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Inoculum : Activated sludge
Effective dose : = 16 mg/l
Exposure time : 28 D

12.2 Persistence and degradability

These are not data avaible about the potential of the product concerning his persistency and degradability.

Biodegradation

Parameter :	Biodegradation (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Inoculum :	Biodegradation
Evaluation parameter :	Aerobic
Degradation rate :	= 90 %
Test duration :	28 D

12.3 Bioaccumulative potential

Parameter :	Bioconcentration factor (BCF) (REACTION MASS OF ETHYLBENZENE AND XYLENE)
	Bioconcentration factor (BCF)
Value :	= 25,9

These are not data availble about the bio accumulation potential of the product.

12.4 Mobility in soil

These are not datas availble about the potential of the product concerning his mobility in the ground.
A penetrating into soil, waters and sewage system should be prevented.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

The product does not contain any substances with endocrine-disrupting properties according to Article 59 Paragraph 1 or substances with endocrine-disrupting properties according to Regulations (EU) 2017/2100 or (EU) 2018/605.

12.7 Other adverse effects

Harmful to aquatic life, may cause long-term adverse effects in the aquatic environment.

12.8 Additional ecotoxicological information

Avoid exposing into ground, waterways and drainage.
The classification of the product is based on summation of classified components according to the Regulation (EC) No 1272/2008 (CLP-Regulation). See details in sections 2 and 3.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Dispose of contents/container to approved disposal company or local collection according to the local regulations. Packaging with not dry uped residues have to droped at official collecting sites. Packaging with dry uped residues can be disposed together with household garbage or building site garbage. Do not empty into waters or drains.

Waste codes/waste designations according to EWC/AVV

For the product:
Disposal-definition No.: 08 01 11* - Paint and varnish waste which contains organic solvents or other dangerous substances.

After intended use

Only empty packaging can be transfered to recycling. Uncleaned packaging must be disposed of in the same manner as the medium.

Waste codes/waste designations according to EWC/AVV

For the uncleaned packaging:
Disposal-definition No.: 15 01 10 * packings which contain dangerous substances or are polluted by dangerous substances.

SECTION 14: Transport information

14.1 UN number

UN 1263

14.2 UN proper shipping name

Land transport (ADR/RID)

PAINT

Sea transport (IMDG)

PAINT

Air transport (ICAO-TI / IATA-DGR)

PAINT

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) :	3
Classification code :	F1
Hazard identification number (Kemler No.) :	30
Tunnel restriction code :	D/E
Special provisions :	LQ 5 l · E 1 · Transport in containers with max. 450 litres contents are not subject to the regulations of ADR/RID.
Hazard label(s) :	3

Sea transport (IMDG)

Class(es) :	3
EmS-No. :	F-E / S-E
Special provisions :	LQ 5 l · E 1 · IMDG 2.3.2.5 (<= 450 l)
Hazard label(s) :	3

Air transport (ICAO-TI / IATA-DGR)

Class(es) :	3
Special provisions :	E 1
Hazard label(s) :	3

14.4 Packing group

III

14.5 Environmental hazards

Land transport (ADR/RID) : No

Sea transport (IMDG) : No

Air transport (ICAO-TI / IATA-DGR) : No

14.6 Special precautions for user

None

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

Not relevant because the product in type of delivery does not transport in bulks according to the Internationa Maritime Organization (IMO) instruments.

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions)

Use restriction according to REACH annex XVII, no. : 3, 40, 75

Other regulations (EU)

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds

Product sub-category and VOC limiting values in accordance with appendix II, letter A of the guideline:
Category j, type Lb;
VOC limiting value of the category for 2010: 500 g/l.
This product contains max. 500 g/l VOC.
The mentioned VOC value refers to the mixture of the product ready for use of tribe varnish and harder.

National regulations

Water hazard class

Classification according to AwSV - Class : 2 (Obviously hazardous to water)

Additional information

The product is not classified as a solid substance according to the criteria of the Penetrometer test (ADR, part 2, section 2.3.4) and also fulfils not the criteria for solid substances according to the TRwS 779 number 2.1.1. Maternity regulations and Young Persons Employment Act are to take into account.

15.2 Chemical Safety Assessment

A chemical safety assessments was not carried out.

SECTION 16: Other information

16.1 Indication of changes

15. Water hazard class

16.2 Abbreviations and acronyms

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des merchandises dangereuses par route)
AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany) AOX: Adsorbable Organic halogen compounds
ATEmix: Calculated acute toxicity estimate of mixture
BCF: Bio-Concentration Factor
CAS: Chemical Abstract Service
CLP: Classification, Labelling and Packaging
CMR: Substances classified as Carcinogenic, Mutagenic or toxic for Reproduction
CSR: Chemical Safety Report
DNEL: Derived No Effect Level
EC: European Commission
EC50: Effective Concentration 50%
ECHA: European Chemical Agency
EEC: European Economic Community
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
EWC: European Waste Catalogue
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IC50: Inhibition Concentration 50%
IMDG Code: International Maritime Dangerous Goods Code
IMO: International Maritime Organization
LC50: Lethal concentration 50%
LD50: Lethal Dose 50%
LOAEL: Lowest Observed Adverse Effect Level
LOEL: Lowest observable effect level
MAK: Treshold limit values Germany (Maximale Arbeitsplatzkonzentration - DFG)
MARPOL: Convention for the Preventation of Marine Pollution from Ships
MVZ: molar ratio
n.a.: Not applicable
n.d.: Not determined
n.r.: Not relevant
NLP: No Longer Polymers
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 Limit
PBT: Persistent, bioaccumulative, toxic

PNEC: Predicted No Effect Concentration
RCP: Reciprocal calculation procedure
REACH: Registration, Evaluation and Authorization of Chemical)
RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer)
STEL: Short-term Exposure Limit
SVHC: Substance of Very High Concern
TLV - TWA: Threshold Limit Value - Time Weighed Average
VOC: Volatile Organic Compounds
vPvB: Very persistent, very bioaccumulative.

16.3 Key literature references and sources for data

None

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

The evaluation of hazard information of the product was carried out in accordance to Annex I of the REGULATION (EC) No 1272/2008 (CLP Regulation).

16.5 Relevant H- and EUH-phrases (Number and full text)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351i	Suspected of causing cancer if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

16.6 Training advice

None

16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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

1.1 Product identifier

Epoxy Hardener for 2K-Epoxi Varioprimer 865
Epoxi-Härter für 2K-Epoxi Varioprimer 865

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

Relevant identified uses

Products Category [PC]

PC 9 - Coatings and paints, fillers, putties, thinners.

Uses advised against

There are no information about relevant identified uses of the product according to the Regulation (EC) No. 1907/2006 (REACH-Regulation), which are advised against. For using the product observe the information in the Technical data sheet of the product.

1.3 Details of the supplier of the safety data sheet

Supplier

Brillux GmbH & Co KG
www.brillux.de

Street : Weseler Straße 401

Postal code/City : D - 48163 Münster

Telephone : +49 (0)251-7188-0

Telefax : +49 (0)251-7188-280

Information contact :

Electronic mail address of the well-informed person for safety data sheets:sdb@brillux.de

1.4 Emergency telephone number

Outside the business hours (9 a.m. to 5 p.m.):
(Giftinformationszentrum-Nord, Göttingen, consultation in german or english language)
Telephone: +49 (0)551-19240.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Flam. Liq. 3 ; H226 - Flammable liquids : Category 3 ; Flammable liquid and vapour.
Skin Irrit. 2 ; H315 - Skin corrosion/irritation : Category 2 ; Causes skin irritation.
Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.
STOT SE 3 ; H335 - STOT-single exposure : Category 3 ; May cause respiratory irritation.
STOT RE 2 ; H373 - STOT-repeated exposure : Category 2 ; May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

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

Hazard pictograms

Flame (GHS02) · Health hazard (GHS08) · Corrosion (GHS05) · Exclamation mark (GHS07)

Signal word

Danger

Hazard components for labelling

REACTION MASS OF ETHYLBENZENE AND XYLENE

BUTAN-1-OL ; CAS No. : 71-36-3

Hazard statements

H226	Flammable liquid and vapour.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H335	May cause respiratory irritation.

Precautionary statements

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe vapours.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P310	Immediately call a POISON CENTER or a doctor.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P501	Dispose of contents/container to approved disposal company or local collection.

Special rules for supplemental label elements for certain mixtures

EUH208	Contains TRIETHYLENETETRAMINE.May produce an allergic reaction.

2.3 Other hazards

The product does not contain any substances with endocrine-disrupting properties according to Article 59 Paragraph 1 or substances with endocrine-disrupting properties according to Regulations (EU) 2017/2100 or (EU) 2018/605.
The product does not contain any substances, which fulfil the criteria for PBT or vPvB in accordance with the Annex XIII of the Regulation (EC) No 1907/2006 (REACH-Regulation).

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description

Hardener for coatings based on epoxi resins;
Composition:
Polyamide, aromatic hydrocarbons, alcohols and additives.

Hazardous ingredients

REACTION MASS OF ETHYLBENZENE AND XYLENE ; REACH No. : 01-2119486136-34 ; EC No. : 905-588-0

Weight fraction :	≥ 30 - < 35 %
Classification 1272/2008 [CLP] :	Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 STOT RE 2 ; H373 Acute Tox. 4 ; H312 Acute Tox. 4 ; H332 Skin Irrit. 2 ; H315 Eye Irrit. 2 ; H319 STOT SE 3 ; H335

BUTAN-1-OL ; REACH No. : 01-2119484630-38 ; EC No. : 200-751-6; CAS No. : 71-36-3

Weight fraction :	≥ 5 - < 10 %
Classification 1272/2008 [CLP] :	Flam. Liq. 3 ; H226 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 STOT SE 3 ; H335 STOT SE 3 ; H336

TRIETHYLENETETRAMINE ; EC No. : 203-950-6; CAS No. : 112-24-3

Weight fraction :	≥ 0,5 - < 1 %
Classification 1272/2008 [CLP] :	Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Acute Tox. 4 ; H312 Skin Sens. 1 ; H317 Aquatic Chronic 3 ; H412

Additional information

The used hydrocarbons contain no benzene or benzene in concentrations less than 0.1 percent by weight and fulfil therefore

the default(handicap) of the remark P to the appendix VI of the order (EC) No. 1272/2008 (GHS order).
For full text of Hazard- and EU Hazard-statements: 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 attention. Immediately remove all contaminated clothing. In case of unconsciousness: lay on side - call a doctor. Never give anything by mouth to an unconscious person. If medical advice is needed, have product container or label at hand.

Following inhalation

When symptoms persists, take the casualty into the fresh air and keep warm. Irregular breathing/no breathing: artificial respiration. Call a doctor and tell him the exactly substance.

In case of skin contact

Take off immediately all contaminated clothes. Wash away with soap and water and rinse. Do NOT use solvents or thinners. If skin irritation continues, consult a doctor.

After eye contact

Remove contact lenses, keep eyelids open. Rinse open eye immediately with plenty of running water. Seek medical adivce if complaint continues.

Following ingestion

Drink water in small draught. Keep at rest. Do not induce vomiting. When swallowed immediately consult and show packing or label to physician.

4.2 Most important symptoms and effects, both acute and delayed

Potential symptoms: Headache, dizziness, giddiness, skin irritation, eye iriitation and irritation to respiratory tract are possible. Allergic symptoms. At swallowing and vomiting danger of penetrating into the lungs.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

In case of fire: Use alcohol resistant foam, CO2, powders or water spray for extinction. Fight larger fires with water spray or alcohol resistant foam.

Unsuitable extinguishing media

In case of fire: Do not use waterjet for extinction.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. In case of fire specially nitrogenous gases may be formed.

5.3 Advice for firefighters

Special protective equipment for firefighters

At a fire caused by the product a breathing apparatus with an independent source of air is to have ready and to use if necessary for the firefighting.

5.4 Additional information

Cool endangered containers with water in case of fire. Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Refer to protective measures listed in sections 7 and 8. Keep away from ignition sources on account of the organic solvent content and air room well. Do not inhale vapours. Avoid contact with eyes and skin.

6.2 Environmental precautions

Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations. Holding polluted washing water back and disposing of duly.

6.3 Methods and material for containment and cleaning up

For cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Ensure adequate ventilation. The areas concerned cleaning with a customary water based cleaning agent, not using organic solvents if possible.

6.4 Reference to other sections

See Section 7 for information on safe handling.
You find information about the safety equipment of persons in the section 8,
information about the refuse disposal in section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Ensure a good ventilation in room and working area. Prevent the creation of inflammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the OEL (=Occupational Exposure Limit). Only use the material in places where open light, fire and other flammable sources can be kept away. For personal protection see Section 8. Avoid contact with skin and eyes. Read label before use. Use only outdoors or in a well-ventilated area.

Measures to prevent fire

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Avoid concentrations which form ignitable or explosive vapour and air mixtures. Likewise, avoid any concentration of vapour above the MAC-valve. Keep away from ignition sources - No smoking. Ground/bond container and receiving equipment. Use explosion-proof pipes, electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Measures to prevent aerosol and dust generation

Do not breathe gas or spray.

Advices on general occupational hygiene

While working do not eat , drink or smoke. Wash hands and face before breaks and after work and take a shower if necessary. Immediately remove all contaminated clothing.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Electrical equipment should be protected to the appropriate standard. Floors should be of the conducting type. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Never use pressure to empty: container is not a pressure vessel. No smoking. Prevent unauthorized access. Do not store the product in lounge room. Keep only in the original container. Keep out of the reach of children. Store in a well-ventilated place. Keep cool.

Hints on joint storage

Keep away from oxidizing agents, from strongly alkaline and strongly acid materials. Store away from foodstuffs.

Storage class (TRGS 510) : 3

Further information on storage conditions

Keep container tightly sealed. Store at 5°-35°C. Containers should be kept dry and sealed.

7.3 Specific end use(s)

For using the product observe the information in the Technical data sheet of the product.

Industrial sector specific solutions

GISCODE : Product code in accordance with GISBAU (hazardous materials information system of the German

professional associations of the building and construction industry): RE2.5.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

REACTION MASS OF ETHYLBENZENE AND XYLENE

Limit value type (country of origin) : TRGS 900 (D)
- Limit value : 100 ppm / 440 mg/m³
- Peak limitation : 4
- Remark : Xylol
- Version : 01.10.1993

Limit value type (country of origin) : TRGS 900 (D)
- Limit value : 20 ppm / 88 mg/m³
- Peak limitation : 2(II)
- Remark : Ethylbenzol H, Y, DFG
- Version : 01.10.1993

Limit value type (country of origin) : STEL (EC)
- Limit value : 200 ppm / 884 mg/m³
- Remark : Ethylbenzol H
- Version :

Limit value type (country of origin) : TWA (EC)
- Limit value : 100 ppm / 442 mg/m³
- Remark : Ethylbenzol H
- Version :

BUTAN-1-OL ; CAS No. : 71-36-3

Limit value type (country of origin) : TRGS 900 (D)
- Limit value : 100 ppm / 310 mg/m³
- Peak limitation : 1(I)
- Remark : Y
- Version : 02.07.2021

Remark

Short time value (STEL): Excess factor 2 (II) according to the german TRGS 900.
Taking into account the details mentioned in the TRGS 900 for the supervision of AGW.

Biological limit values

REACTION MASS OF ETHYLBENZENE AND XYLENE

Limit value type (country of origin) : TRGS 903 (D)
- Parameter : Xylene / Whole blood (B) / End of exposure or end of shift
- Limit value : 0,15 mg/dl
- Remark : Xylol
- Version : 01.10.1993

Limit value type (country of origin) : TRGS 903 (D)
- Parameter : Methylhippuric (toluric) acid (all isomers) / Urine (U) / End of exposure or end of shift
- Limit value : 2 g/l
- Remark : Xylol
- Version : 01.10.1993

Limit value type (country of origin) : TRGS 903 (D)
- Parameter : Ethylbenzene / Whole blood (B) / End of exposure or end of shift
- Limit value : 1 mg/l
- Remark : Ethylbenzol
- Version : 01.10.1993

Limit value type (country of origin) : TRGS 903 (D)

Parameter : Mandelic acid plus phenylglyoxylic acid / Urine (U) / End of exposure or end of shift
Limit value : 800 mg/g Creatinine
Remark : Ethylbenzol
Version : 01.10.1993

BUTAN-1-OL ; CAS No. : 71-36-3
Limit value type (country of origin) : TRGS 903 (D)
Parameter : Butan-1-ol (1-butanol) (after hydrolysis) / Urine (U) / Before next shift
Limit value : 2 mg/g Creatinine
Version : 04.05.2021
Limit value type (country of origin) : TRGS 903 (D)
Parameter : Butan-1-ol (1-butanol) (after hydrolysis) / Urine (U) / End of exposure or end of shift
Limit value : 10 mg/g Creatinine
Version : 04.05.2021

DNEL-/PNEC-values

DNEL/DMEL

REACTION MASS OF ETHYLBENZENE AND XYLENE
Limit value type : DNEL Consumer (local)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : = 65,3 mg/m³
Limit value type : DNEL Consumer (local)
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : = 260 mg/m³
Limit value type : DNEL Consumer (systemic)
Exposure route : Oral
Exposure frequency : Long-term
Limit value : = 1,6 mg/kg
Assessment factor : 1 D
Limit value type : DNEL Consumer (systemic)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : = 14,8 mg/m³
Limit value type : DNEL Consumer (systemic)
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : = 260 mg/m³
Limit value type : DNEL worker (local)
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : = 289 mg/m³
Limit value type : DNEL worker (local and systemic)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : = 221 mg/m³
Limit value type : DNEL worker (systemic)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : = 211 mg/m³
Limit value type : DNEL worker (systemic)
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : = 442 mg/m³
Limit value type : DNEL worker (systemic)

Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	= 180 mg/kg
Assessment factor :	1 D

PNEC

REACTION MASS OF ETHYLBENZENE AND XYLENE

Limit value type :	PNEC (Aquatic, freshwater)
Exposure route :	Water (Including sewage plant)
Limit value :	0,327 mg/l
Limit value type :	PNEC (Aquatic, marine water)
Exposure route :	Water (Including sewage plant)
Limit value :	= 0,327 mg/l
Limit value type :	PNEC (Sediment, freshwater)
Exposure route :	Water (Including sewage plant)
Limit value :	12,64 mg/kg
Limit value type :	PNEC (Sediment, marine water)
Exposure route :	Water (Including sewage plant)
Limit value :	= 12,64 mg/kg
Limit value type :	PNEC soil
Exposure route :	Soil
Limit value :	2,31 mg/kg
Limit value type :	PNEC (Sewage treatment plant)
Exposure route :	Water (Including sewage plant)
Limit value :	6,58 mg/l

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL (=Occupational Exposure Limit), suitable respiratory protection must be worn. Observe data available of section 7.

Personal protection equipment

Eye/face protection

Use protection glasses in case of spattering.

Skin protection

Hand protection

At use as agreed a protective gloves from nitrile rubber with a material thickness 0,38 mm has to be used. Notes of the manufacturer have to be taken into account. Penetration time of the glove material: > = 60 min.
By longer or repeated contact the penetration times can be considerably shorter. The protective gloves should replaced after the first wear out or a damage of the gloves. Gloves of cotton should be used under the gloves of polychloropren or nitrile rubber. After washing hands replace lost skin fat by fat containing skin creams.

Body protection

Using protective clothing. If the product must sprayed, use a disposable protective suit.

Respiratory protection

Breathing protection equipment is not required in good ventilated places. A respiratory protection (combination filter A2-P3) is required by inadequate ventilation and by spray application. Do not breathe gas or spray.

General information

Avoid contact with eyes and skin. Immediately remove all contaminated clothing. Do not eat or drink during work - no smoking. Wash hands before breaks and after work. Ensure a good ventilation in room and working area. Do not breathe gas or spray.

Environmental exposure controls

The product should not reach waters and the ground. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : conformable to product designation.

Odour

Smell of organic solvents.

Safety characteristics

Melting point/freezing point :	(1013 hPa)		No data available		
Initial boiling point and boiling range :	(1013 hPa)	approx.	135	°C	
Decomposition temperature :	(1013 hPa)		No data available		
Flash point :			27	°C	
Auto-ignition temperature :		>	300	°C	
Lower explosion limit :			1,7	Vol-%	
Upper explosion limit :			7,6	Vol-%	
Vapour pressure :	(50 °C)		No data available		
Vapour pressure:	(20 °C)		6,7	hPa	
Density :	(20 °C)	approx.	0,93 - 0,95	g/cm³	
Solvent separation test :	(20 °C)	<	3	%	
Water solubility :	(20 °C)		mixable		
pH :			not applicable		
log P O/W :			No data available		
Flow time :	(20 °C)		No data available		DIN-cup 4 mm
Viscosity :	(25 °C)	approx.	9000	mPa*s	
Kinematic viscosity :	(40 °C)	>	20,5	mm²/s	
Relative vapour density :	(20 °C)		No data available		
VOC-value :		max.	500	g/l	
Flammable liquids :	The product is ignitable.				
Particle Characterics :	not applicable				

9.2 Other information

Other physical and chemical data have not been determined.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangers connected by a possible reactivity of the product are known to proper handling and storage.

10.2 Chemical stability

Stable under recommended storage and handling conditions (see section 7).

10.3 Possibility of hazardous reactions

No dangerous reactions are known if stored and handled the product correctly.
Vapours can form explosive mixtures with air.

10.4 Conditions to avoid

To avoid formation of ignitable vapour and air mixtures ensure good ventilation (inter alia extraction system). Keep away from frost, heat and direct sunlight.
Cleaning cloths saturated with solvent can ignite themselves. Therefore ensure safe disposal of waste.

10.5 Incompatible materials

No dangerous reaction known. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.6 Hazardous decomposition products

No dangerous decomposition product are known if stored and handled correctly. When exposed to high temperatures or in case of fire hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen, may produced.

SECTION 11: Toxicological information

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

Acute toxicity

Acute toxicity:
- Acute oral toxicity: No data available;
- Acute dermal toxicity: No data available;
- Acute inhalation toxicity: No data available.

Acute oral toxicity

Parameter :	ATEmix calculated
Exposure route :	Oral
Effective dose :	6250 mg/kg
Parameter :	LD50 (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Exposure route :	Oral
Species :	Rat
Effective dose :	3523 - 4000 mg/kg
Parameter :	LD50 (BUTAN-1-OL ; CAS No. : 71-36-3)
Exposure route :	Oral
Species :	Rat
Effective dose :	790 mg/kg
Parameter :	LD50 (TRIETHYLENETETRAMINE ; CAS No. : 112-24-3)
Exposure route :	Oral
Species :	Rat
Effective dose :	1716 mg/kg

Acute dermal toxicity

Parameter :	ATEmix calculated
Exposure route :	Dermal
Effective dose :	37894 mg/kg
Parameter :	LD50 (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	12126 mg/kg
Parameter :	LD50 (BUTAN-1-OL ; CAS No. : 71-36-3)
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	3400 mg/kg
Parameter :	LD50 (TRIETHYLENETETRAMINE ; CAS No. : 112-24-3)
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	1465 mg/kg

Acute inhalation toxicity

Parameter :	ATEmix calculated
Exposure route :	Inhalation (vapour)
Effective dose :	19843,8 mg/l
Parameter :	LC50 (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Exposure route :	Inhalation (vapour)
Species :	Rat
Effective dose :	6350 - 6700 ppm
Exposure time :	4 h
Parameter :	LC50 (BUTAN-1-OL ; CAS No. : 71-36-3)

Exposure route :	Inhalation
Species :	Rat
Effective dose :	24 mg/l
Exposure time :	4 h

Corrosion

Irritation:
- Skin contact: Irritating to skin.
- Eye contact: Causes serious eye damage.
- Respiratory: May cause respiratory irritation.

Respiratory or skin sensitisation

The product contains sensitizing substances, which may produce an allergic reaction (see section 2 and 3).

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

The product is not classified as human germ cell mutagenic, carcinogenic or human reproductive toxic (CMR effects).

STOT-single exposure

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation, kidneys and liver damages, as well as leading the impairment of the central nervous system.
Symtoms and signs include headache: dizzines, fatique, muscular weakness, drowsiness and in extreme cases loss of consciouness.
The liquid splached in the eyes may cause irritation and reversible demage.

STOT-repeated exposure

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.
May causes damage to the organs through prolonged or repeated exposure.

Aspiration hazard

The product contains substances, which are classified as apiration toxicity, category 1 (May be fatal if swallowed and enters airways), in accordance to the Regulation (EC) No. 1272/2008 (CLP-Regulation) in there pure form.
The product is not classified as apiration toxicity, category 1, because of the higher viscosity (> 20,5 mm2/s at 40°C).

11.2 Information on other hazards

Endocrine disrupting properties

The product does not contain any substances with endocrine-disrupting properties according to Article 59 Paragraph 1 or substances with endocrine-disrupting properties according to Regulations (EU) 2017/2100 or (EU) 2018/605.

Other adverse effects

This product is unlikely to harm health, given normal and proper handling and hygenic precautions.

Additional information

The product is classified in toxicological terms on the basis of the results of the calculation procedure outlined within the Regulation (EC) No 1272/2008 (CLP-Regualtion), listed in sections 2 and 3.
At proper dealing and use as agreed the product does not cause any effects bad for health after our experiences and the information submitted to us.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter :	LC50 (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Species :	Acute (short-term) fish toxicity
Evaluation parameter :	Oncorhynchus mykiss
Effective dose :	= 2,6 mg/l
Exposure time :	96 h

Acute (short-term) toxicity to crustacea

Parameter :	LC50 (REACTION MASS OF ETHYLBENZENE AND XYLENE)

Species :	Acute (short-term) toxicity to crustacea
Evaluation parameter :	Daphnia magna
Effective dose :	= 1 mg/l
Exposure time :	24 h

Acute (short-term) toxicity to algae and cyanobacteria

Parameter :	EC50 (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Species :	Scenedesmus capricornutum
Evaluation parameter :	Acute (short-term) toxicity to algae and cyanobacteria
Effective dose :	= 2,2 mg/l
Exposure time :	73 h

Sewage treatment plant

Parameter :	Effects in sewage plants (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Inoculum :	Activated sludge
Effective dose :	= 16 mg/l
Exposure time :	28 D

12.2 Persistence and degradability

These are not data avaible about the potential of the product concerning his persistency and degradability.

Biodegradation

Parameter :	Biodegradation (REACTION MASS OF ETHYLBENZENE AND XYLENE)
Inoculum :	Biodegradation
Evaluation parameter :	Aerobic
Degradation rate :	= 90 %
Test duration :	28 D

12.3 Bioaccumulative potential

Parameter :	Bioconcentration factor (BCF) (REACTION MASS OF ETHYLBENZENE AND XYLENE) Bioconcentration factor (BCF)
Value :	= 25,9

These are not data availble about the bio accumulation potential of the product.

12.4 Mobility in soil

These are not datas availble about the potential of the product concerning his mobility in the ground.
A penetrating into soil, waters and sewage system should be prevented.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

The product does not contain any substances with endocrine-disrupting properties according to Article 59 Paragraph 1 or substances with endocrine-disrupting properties according to Regulations (EU) 2017/2100 or (EU) 2018/605.

12.7 Other adverse effects

Acute or chronic damages to water organisms by the product in the aquatic environment are not expecting.

12.8 Additional ecotoxicological information

Avoid exposing into ground, waterways and drainage.
The classification of the product is based on summation of classified components according to the Regulation (EC) No 1272/2008 (CLP-Regulation). See details in sections 2 and 3.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Dispose of contents/container to approved disposal company or local collection according to the local regulations. Packaging with not dry uped residues have to droped at official collecting sites. Packaging with dry uped residues can be disposed together with household garbage or building site garbage. Do not empty into waters or drains.

Waste codes/waste designations according to EWC/AVV

For the product:
Disposal-definition No.: 08 01 11* - Paint and varnish waste which contains organic solvents or other dangerous substances.

After intended use

Only empty packaging can be transfered to recycling. Uncleaned packaging must be disposed of in the same manner as the medium.

Waste codes/waste designations according to EWC/AVV

For the uncleaned packaging:
Disposal-definition No.: 15 01 10 * packings which contain dangerous substances or are polluted by dangerous substances.

SECTION 14: Transport information

14.1 UN number

UN 1263

14.2 UN proper shipping name

Land transport (ADR/RID)
PAINT

Sea transport (IMDG)
PAINT

Air transport (ICAO-TI / IATA-DGR)
PAINT

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) :	3
Classification code :	F1
Hazard identification number (Kemler No.) :	30
Tunnel restriction code :	D/E
Special provisions :	LQ 5 l · E 1 · Transport in containers with max. 450 litres contents are not subject to the regulations of ADR/RID.
Hazard label(s) :	3

Sea transport (IMDG)

Class(es) :	3
EmS-No. :	F-E / S-E
Special provisions :	LQ 5 l · E 1 · IMDG 2.3.2.5 (<= 450 l)
Hazard label(s) :	3

Air transport (ICAO-TI / IATA-DGR)

Class(es) :	3
Special provisions :	E 1
Hazard label(s) :	3

14.4 Packing group

III

14.5 Environmental hazards

Land transport (ADR/RID) : No
Sea transport (IMDG) : No
Air transport (ICAO-TI / IATA-DGR) : No

14.6 Special precautions for user

None

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

Not relevant because the product in type of delivery does not transport in bulks according to the Internationa Maritime

Organization (IMO) instruments.

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions)

Use restriction according to REACH annex XVII, no. : 3, 40, 75

Other regulations (EU)

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds

Product sub-category and VOC limiting values in accordance with appendix II, letter A of the guideline:
Category j, type Lb;
VOC limiting value of the category for 2010: 500 g/l.
This product contains max. 500 g/l VOC.
The mentioned VOC value refers to the mixture of the product ready for use of tribe varnish and harder.

National regulations

Water hazard class

Classification according to AwSV - Class : 2 (Obviously hazardous to water)

Additional information

The product is not classified as a solid substance according to the criteria of the Penetrometer test (ADR, part 2, section 2.3.4) and also fulfils not the criteria for solid substances according to the TRwS 779 number 2.1.1.
Maternity regulations and Young Persons Employment Act are to take into account.

15.2 Chemical Safety Assessment

A chemical safety assessments was not carried out.

SECTION 16: Other information

16.1 Indication of changes

02. Label elements

16.2 Abbreviations and acronyms

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des merchandises dangereuses par route)
AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany) AOX: Adsorbable Organic halogen compounds
ATEmix: Calculated acute toxicity estimate of mixture
BCF: Bio-Concentration Factor
CAS: Chemical Abstract Service
CLP: Classification, Labelling and Packaging
CMR: Substances classified as Carcinogenic, Mutagenic or toxic for Reproduction
CSR: Chemical Safety Report
DNEL: Derived No Effect Level
EC: European Commission
EC50: Effective Concentration 50%
ECHA: European Chemical Agency
EEC: European Economic Community
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
EWC: European Waste Catalogue
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IC50: Inhibition Concentration 50%
IMDG Code: International Maritime Dangerous Goods Code
IMO: International Maritime Organization
LC50: Lethal concentration 50%
LD50: Lethal Dose 50%
LOAEL: Lowest Observed Adverse Effect Level
LOEL: Lowest observable effect level
MAK: Treshold limit values Germany (Maximale Arbeitsplatzkonzentration - DFG)
MARPOL: Convention for the Prevention of Marine Pollution from Ships
MVZ: molar ratio
n.a.: Not applicable
n.d.: Not determined
n.r.: Not relevant
NLP: No Longer Polymers
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 Limit
PBT: Persistent, bioaccumulative, toxic
PNEC: Predicted No Effect Concentration
RCP: Reciprocal calculation procedure
REACH: Registration, Evaluation and Authorization of Chemical)
RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer)
STEL: Short-term Exposure Limit
SVHC: Substance of Very High Concern
TLV - TWA: Threshold Limit Value - Time Weighed Average
VOC: Volatile Organic Compounds
vPvB: Very persistent, very bioaccumulative.

16.3 Key literature references and sources for data

None

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

The evaluation of hazard information of the product was carried out in accordance to Annex I of the REGULATION (EC) No 1272/2008 (CLP Regulation).

16.5 Relevant H- and EUH-phrases (Number and full text)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

16.6 Training advice

None

16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.