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

1.1 Product identifier

Einbrennlack 5592 (SORTE 5592)

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

Solvent-based coating. Intended purpose see technical data sheet.

Relevant identified uses

Product Categories [PC]

PC9 - Coatings and paints, fillers, putties, thinners

Remark

The product is intended for professional use.

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

Brillux GmbH & Co. KG, Industrielack
www.brillux-industrielack.de

Street : Otto-Hahn-Straße 14

Postal code/city : D-59423 Unna

Telephone : +49 2303 8805-0

Telefax : +49 2303 8805-119

Information contact : E-mail address of the competent person for safety data sheets: sdb@brillux-industrielack.de

1.4 Emergency telephone number

Giftinformationszentrum-Nord (poisons centre), consultation in german and english
Telephone: +49 551 19 24 0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Aquatic Chronic 3 ; H412 - Hazardous to the aquatic environment : Chronic 3 ; Harmful to aquatic life with long lasting effects.
Carc. 1B ; H350 - Carcinogenicity : Category 1B ; May cause cancer.
Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.
Skin Irrit. 2 ; H315 - Skin corrosion/irritation : Category 2 ; Causes skin irritation.
Flam. Liq. 3 ; H226 - Flammable liquids : Category 3 ; Flammable liquid and vapour.
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.

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

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. ; CAS No. : 64742-95-6
XYLENE ; CAS No. : 1330-20-7
2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1
FORMALDEHYDE 0,1 % ; CAS No. : 50-00-0

Hazard statements

H226	Flammable liquid and vapour.
H350	May cause cancer.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P310	Immediately call a POISON CENTER or a doctor.
P308+P313	IF exposed or concerned: 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.

Special rules for supplemental label elements for certain mixtures

O220	For professional use only
EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH208	Contains REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; FORMALDEHYDE ; REACTION PRODUCT: BISPHENOL F-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; Fatty acids, tall-oil, compds. with oleylamine ; Fatty acids, C18-unsatd., trimers, compds. with oleylamine.May produce an allergic reaction.

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. ; REACH registration No. : 01-2119455851-35 ; EC No. : 918-668-5; CAS No. : 64742-95-6

Weight fraction :	≥ 20 - < 25 %
Classification 1272/2008 [CLP] :	Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 STOT SE 3 ; H335 STOT SE 3 ; H336 Aquatic Chronic 2 ; H411

2-METHYLPROPAN-1-OL ; REACH registration No. : 01-2119484609-23 ; EC No. : 201-148-0; CAS No. : 78-83-1

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

XYLENE ; REACH registration No. : 01-2119488216-32 ; EC No. : 215-535-7; CAS No. : 1330-20-7

Weight fraction :	≥ 5 - < 10 %
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

Hydrocarbons, C10, aromatics, < 1 % naphthalene ; REACH registration No. : 01-2119463583-34 ; EC No. : 918-811-1; CAS No. : 64742-94-5

Weight fraction :	≥ 2,5 - < 5 %

Classification 1272/2008 [CLP] : Asp. Tox. 1 ; H304 STOT SE 3 ; H336 Aquatic Chronic 2 ; H411

ETHYLBENZENE ; REACH registration No. : 01-2119489370-35 ; EC No. : 202-849-4; CAS No. : 100-41-4

Weight fraction : ≥ 1 - < 5 %

Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Asp. Tox. 1 ; H304 STOT RE 2 ; H373 Acute Tox. 4 ; H332 Aquatic Chronic 3 ; H412

2-METHOXY-1-METHYLETHYL ACETATE ; REACH registration No. : 01-2119475791-29 ; EC No. : 203-603-9; CAS No. : 108-65-6

Weight fraction : ≥ 1 - < 5 %

Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226
Substance with a common (EC) occupational exposure limit value.

REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; REACH registration No. : 01-2119456619-26 ; EC No. : 500-033-5; CAS No. : 25068-38-6

Weight fraction : ≥ 0,1 - < 0,5 %

Classification 1272/2008 [CLP] : Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Eye Irrit. 2 ; H319 Aquatic Chronic 2 ; H411

FORMALDEHYDE ; EC No. : 200-001-8; CAS No. : 50-00-0

Weight fraction : ≥ 0,1 - < 0,2 %

Classification 1272/2008 [CLP] : Acute Tox. 3 ; H301 Acute Tox. 3 ; H311 Acute Tox. 3 ; H331 Carc. 1B ; H350 Muta. 2 ; H341 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Skin Sens. 1 ; H317 STOT SE 3 ; H335

REACTION PRODUCT: BISPHENOL F-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; REACH registration No. : 01-2119454392-40 ; EC No. : 500-006-8; CAS No. : 9003-36-5

Weight fraction : ≥ 0,1 - < 0,5 %

Classification 1272/2008 [CLP] : Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Eye Irrit. 2 ; H319 Aquatic Chronic 2 ; H411

Fatty acids, tall-oil, compds. with oleylamine ; EC No. : 288-315-1; CAS No. : 85711-55-3

Weight fraction : ≥ 0,01 - < 0,1 %

Classification 1272/2008 [CLP] : STOT RE 2 ; H373 Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 Skin Sens. 1A ; H317

Fatty acids, C18-unsatd., trimers, compds. with oleylamine ; CAS No. : 147900-93-4

Weight fraction : ≥ 0,01 - < 0,1 %

Classification 1272/2008 [CLP] : STOT RE 2 ; H373 Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 Skin Sens. 1A ; H317

Additional information

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Change contaminated, saturated clothing. When in doubt or if symptoms are observed, get medical advice. If unconscious place in recovery position and seek medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

In case of skin contact

Wash immediately with: Water and soap Do not wash with: Solvents/Thinner

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Protect uninjured eye.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Keep at rest. Do NOT induce vomiting. No direct artificial respiration to be given by first aider.

Information to physician

Causes central nervous system depression. Dermatitis may result from prolonged or repeated exposure. Potential for

chemical pneumonitis. Consider: gastric lavage with protected airway, administration of activated charcoal. Call a doctor or poison control center for guidance.

4.2 Most important symptoms and effects, both acute and delayed

Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance. Other signs and symptoms of central nervous system (CNS) depression may include headache, nausea, and lack of coordination. Respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever.

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Extinguishing powder, alcohol resistant foam, carbon dioxide (CO_2), water spray.

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated: Nitrogen oxides (NOx), carbon monoxide (CO), carbon dioxide (CO_2) and pyrolysis products, toxic.

5.3 Advice for firefighters

Special protective equipment for firefighters

Use suitable breathing apparatus.

5.4 Additional information

Burning produces heavy smoke. Use water spray jet to protect personnel and to cool endangered containers. 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

Remove all sources of ignition. Provide adequate ventilation. See protective measures under point 7 and 8.

6.2 Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean with detergents. Avoid solvent cleaners.

6.4 Reference to other sections

None

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Avoid: Inhalation of vapours or spray/mists Only use the material in places where open light, fire and other flammable sources can be kept away. If handled uncovered, arrangements with local exhaust ventilation should be used if possible. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Never use pressure to empty container. Only allow access to authorised staff.

Measures to prevent fire

Keep away from sources of ignition - No smoking. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Take precautionary measures against static discharges. Wear anti-static footwear and clothing Use only antistatically equipped (spark-free) tools.

Advices on general occupational hygiene

Wear personal protection equipment (refer to section 8). When using do not eat, drink, smoke, sniff. Always close containers tightly after the removal of product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Floors should be impervious, resistant to liquids and easy to clean. Provide adequate ventilation as well as local exhaustion at critical locations. Keep container tightly closed.

Hints on joint storage

Storage class (TRGS 510) : 3

Do not store together with

Strong acid, strong alkali, oxidising agent, food and feedingstuffs.

Further information on storage conditions

Keep only in the original container in a cool, well-ventilated place.

Protect against : Heat. Humidity.

7.3 Specific end use(s)

Solvent-based coating. Intended purpose see technical data sheet.

Industrial sector specific solutions

Note DGUV-Rule 100-500, section 2.29 (processing coating materials). Note DGUV-Rule 109-013.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. ; CAS No. : 64742-95-6

Limit value type (country of origin) :	TRGS 900 (D)
Limit value :	50 ppm / 100 mg/m^3
Peak limitation :	2(II)
Remark :	AGS
Version :	
Limit value type (country of origin) :	TWA (D)
Limit value :	25 mg/kg
Version :	

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

Limit value type (country of origin) :	TRGS 900 (D)
Limit value :	100 ppm / 310 mg/m^3
Peak limitation :	1(I)
Remark :	Y
Version :	29.03.2019

XYLENE ; CAS No. : 1330-20-7

Limit value type (country of origin) :	TRGS 900 (D)
Limit value :	100 ppm / 440 mg/m^3
Peak limitation :	2(II)
Remark :	H
Version :	01.10.1993
Limit value type (country of origin) :	STEL (EC)
Limit value :	100 ppm / 442 mg/m^3
Version :	

Limit value type (country of origin) : TWA (EC)
Limit value : 50 ppm / 221 mg/m^3
Version :

Hydrocarbons, C10, aromatics, < 1 % naphthalene ; CAS No. : 64742-94-5
Limit value type (country of origin) : TRGS 900 (D)
Limit value : 50 mg/m^3 / 10 ppm
Peak limitation : 2(II)
Remark : AGS
Version : 01.12.2007

2-(2-BUTOXYETHOXY)ETHYL ACETATE ; CAS No. : 124-17-4
Limit value type (country of origin) : TRGS 900 (D)
Limit value : 10 ppm / 67 mg/m^3
Peak limitation : 1,5(I)
Remark : Y
Version : 29.03.2019

ETHYLBENZENE ; CAS No. : 100-41-4
Limit value type (country of origin) : TRGS 900 (D)
Limit value : 20 ppm / 88 mg/m^3
Peak limitation : 2(II)
Remark : H, Y
Version : 29.03.2019
Limit value type (country of origin) : STEL (EC)
Limit value : 200 ppm / 884 mg/m^3
Remark : H
Version : 31.01.2018
Limit value type (country of origin) : TWA (EC)
Limit value : 100 ppm / 442 mg/m^3
Remark : H
Version : 31.01.2018

2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6
Limit value type (country of origin) : TRGS 900 (D)
Limit value : 50 ppm / 270 mg/m^3
Peak limitation : 1(I)
Remark : Y
Version : 29.03.2019
Limit value type (country of origin) : STEL (EC)
Limit value : 100 ppm / 550 mg/m^3
Remark : H
Version : 31.01.2018
Limit value type (country of origin) : TWA (EC)
Limit value : 50 ppm / 275 mg/m^3
Remark : H
Version : 31.01.2018

FORMALDEHYDE ; CAS No. : 50-00-0
Limit value type (country of origin) : TRGS 900 (D)
Limit value : 0,3 ppm / 0,37 mg/m^3
Peak limitation : 2(I)
Remark : X, Y, Sh
Version : 29.03.2019

Biological limit values

XYLENE ; CAS No. : 1330-20-7
Limit value type (country of origin) : TRGS 903 (D)
Parameter : Xylene / Whole blood (B) / End of exposure or end of shift
Limit value : 1,5 mg/l

Remark : 5/2013 DFG
Version : 01.10.1993
Limit value type (country of origin) : TRGS 903 (D)
Parameter : Methylhippuric acid / Urine (U) / End of exposure or end of shift
Limit value : 2 g/l
Version : 01.10.1993
ETHYLBENZENE ; CAS No. : 100-41-4
Limit value type (country of origin) : TRGS 903 (D)
Parameter : Mandelic acid + Phenylglyoxyl acid / Urine (U) / End of exposure or end of shift
Limit value : 250 mg/g Kr
Version : 29.03.2019

DNEL/DMEL and PNEC values

DNEL/DMEL

Limit value type : DNEL worker (local) (SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. ; CAS No. : 64742-95-6)
Exposure route : Dermal
Exposure frequency : Long-term (repeated)
Limit value : 25 mg/kg
Limit value type : DNEL worker (local) (SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. ; CAS No. : 64742-95-6)
Exposure route : Inhalation
Exposure frequency : Long-term (repeated)
Limit value : 150 mg/m^3
Limit value type : DNEL/DMEL (Consumer) (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route : Oral
Exposure frequency : Long-term (repeated)
Limit value : 25 mg/kg
Safety factor : 1 Days
Limit value type : DNEL/DMEL (Consumer) (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route : Inhalation
Exposure frequency : Long-term (repeated)
Limit value : 55 mg/m^3
Limit value type : DNEL/DMEL (Industrial) (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route : Inhalation
Exposure frequency : Long-term (repeated)
Limit value : 310 mg/m^3
Limit value type : DNEL/DMEL (Industrial) (XYLENE ; CAS No. : 1330-20-7)
Exposure route : Inhalation
Exposure frequency : Short-term (acute)
Limit value : 289 mg/kg
Limit value type : DNEL/DMEL (Industrial) (XYLENE ; CAS No. : 1330-20-7)
Exposure route : Dermal
Exposure frequency : Long-term (repeated)
Limit value : 180 mg/kg
Limit value type : DNEL/DMEL (Industrial) (XYLENE ; CAS No. : 1330-20-7)
Exposure route : Inhalation
Exposure frequency : Long-term (repeated)
Limit value : 77 mg/kg
Limit value type : DNEL worker (local) (Hydrocarbons, C10, aromatics, < 1 % naphthalene ; CAS No. : 64742-94-5)
Exposure route : Dermal
Exposure frequency : Long-term (repeated)
Limit value : 12,5 mg/kg
Limit value type : DNEL worker (local) (Hydrocarbons, C10, aromatics, < 1 % naphthalene ; CAS No. : 64742-94-5)
Exposure route : Inhalation

Exposure frequency :	Long-term (repeated)
Limit value :	151 mg/m^3
Limit value type :	DNEL/DMEL (Industrial) (ETHYLBENZENE ; CAS No. : 100-41-4)
Exposure route :	Inhalation
Exposure frequency :	Short-term (acute)
Limit value :	289 mg/m^3
Limit value type :	DNEL/DMEL (Industrial) (ETHYLBENZENE ; CAS No. : 100-41-4)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	77 mg/m^3
Limit value type :	DNEL/DMEL (Industrial) (ETHYLBENZENE ; CAS No. : 100-41-4)
Exposure route :	Dermal
Exposure frequency :	Long-term (repeated)
Limit value :	180 mg/kg
Limit value type :	DNEL/DMEL (Consumer) (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route :	Dermal
Exposure frequency :	Long-term (repeated)
Limit value :	54,8 mg/kg
Limit value type :	DNEL/DMEL (Consumer) (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	33 mg/m^3
Limit value type :	DNEL/DMEL (Consumer) (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route :	Oral
Exposure frequency :	Long-term (repeated)
Limit value :	1,67 mg/kg
Limit value type :	DNEL/DMEL (Industrial) (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	275 mg/m^3
Limit value type :	DNEL/DMEL (Industrial) (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route :	Dermal
Exposure frequency :	Long-term (repeated)
Limit value :	153,5 mg/kg
Limit value type :	DNEL/DMEL (Consumer) (REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 25068-38-6)
Exposure route :	Oral
Exposure frequency :	Long-term (repeated)
Limit value :	0,75 mg/kg
Limit value type :	DNEL/DMEL (Consumer) (REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 25068-38-6)
Exposure route :	Oral
Exposure frequency :	Long-term (repeated)
Limit value :	3,6 mg/kg
Limit value type :	DNEL/DMEL (Consumer) (REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 25068-38-6)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	0,75 mg/kg
Limit value type :	DNEL/DMEL (Professional) (REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN),

	EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 25068-38-6)
Exposure route :	Dermal
Exposure frequency :	Long-term (repeated)
Limit value :	8,3 mg/kg
Limit value type :	DNEL/DMEL (Professional) (REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 25068-38-6)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	12,3 mg/kg

PNEC

Limit value type :	PNEC (Aquatic, freshwater) (XYLENE ; CAS No. : 1330-20-7)
Exposure route :	Water (Including sewage plant)
Limit value :	0,327 mg/l
Limit value type :	PNEC (Aquatic, freshwater) (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route :	Water (Including sewage plant)
Limit value :	0,4 mg/l
Limit value type :	PNEC (Aquatic, marine water) (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route :	Water (Including sewage plant)
Limit value :	0,04 mg/l
Limit value type :	PNEC (Sediment, freshwater) (XYLENE ; CAS No. : 1330-20-7)
Exposure route :	Water (Including sewage plant)
Limit value :	12,46 mg/kg
Limit value type :	PNEC (Sediment, freshwater) (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route :	Soil
Limit value :	1,52 mg/kg
Limit value type :	PNEC (Sediment, marine water) (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route :	Soil
Limit value :	0,125 mg/kg
Limit value type :	PNEC soil (XYLENE ; CAS No. : 1330-20-7)
Exposure route :	Soil
Limit value :	2,31 mg/kg
Limit value type :	PNEC soil (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route :	Soil
Limit value :	0,0699 mg/kg
Limit value type :	PNEC (Sewage treatment plant) (XYLENE ; CAS No. : 1330-20-7)
Exposure route :	Water (Including sewage plant)
Limit value :	6,58 mg/l
Limit value type :	PNEC (Sewage treatment plant) (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route :	Water (Including sewage plant)
Limit value :	10 mg/l
Limit value type :	PNEC (Aquatic, freshwater) (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route :	Water (Including sewage plant)
Limit value :	0,635 mg/l
Limit value type :	PNEC (Aquatic, marine water) (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route :	Water (Including sewage plant)
Limit value :	0,0635 mg/l
Limit value type :	PNEC (Sediment, freshwater) (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route :	Soil
Limit value :	3,29 mg/kg
Limit value type :	PNEC (Sediment, marine water) (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route :	Soil

Limit value :	0,329 mg/kg
Limit value type :	PNEC soil (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route :	Soil
Limit value :	29 mg/kg
Limit value type :	PNEC (Sewage treatment plant) (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route :	Water (Including sewage plant)
Limit value :	100 mg/l
Limit value type :	PNEC (Consumer) (REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 25068-38-6)
Exposure route :	Water (Including sewage plant)
Limit value :	10 mg/l
Limit value type :	PNEC (Sediment, freshwater) (REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 25068-38-6)
Exposure route :	Water (Including sewage plant)
Limit value :	0,5 mg/kg
Limit value type :	PNEC (Sediment, marine water) (REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 25068-38-6)
Exposure route :	Water (Including sewage plant)
Limit value :	0,5 mg/kg

8.2 Exposure controls

Personal protection equipment

Eye/face protection

Suitable eye protection

goggles (EN 166)

Remark

Note DGUV-Rule 112-192.

Skin protection

Hand protection

Use safety gloves according to EN 374. Suitable glove materials: fluoro-rubber, butyl-rubber or nitrile-rubber. Please pay attention to the glove penetration times of the substances named below in chapter 2, according to the glove manufactures.

Remark : After washing hands replace lost skin fat by fat containing skin creams. Note DGUV-Rule 112-195. Note TRGS 401.

Body protection

Required properties : Antistatic, non-melting.

Recommended material : Natural fibres (e.g. cotton), heat-resistant synthetic fibres.

Remark : Note DGUV-Rule 112-189. Note TRGS 401.

Respiratory protection

Respiratory protection necessary at: Insufficient ventilation, insufficient exhaust or spray application.

Suitable respiratory protection apparatus

Combination filter mask A2-P2 for short-term work.
European Committee for Standardization (CEN) standards EN 136, 140 and 405 provide respirator masks and EN 149 and 143 provide filter recommendations.

Remark

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Note TRGS 402.

Occupational exposure controls

Technical measures to prevent exposure

Technical measures and the application of suitable work processes have priority over personal protection equipment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid

Colour : According to product identification.

Odour

Like solvent.

Safety relevant basis data

Melting point/melting range :			not applicable		
Initial boiling point and boiling range :	(1013 hPa)	approx.	120 - 200	°C	
Decomposition temperature :			No data available		
Flash point :		>	23 - 60	°C	
Ignition temperature :			No data available		
Lower explosion limit :		approx.	0,6	Vol-%	
Upper explosion limit :		approx.	11	Vol-%	
Vapour pressure :	(50 °C)	<	100	hPa	
Density :	(20 °C)		1 - 1,5	g/cm^3	
Solvent separation test :	(20 °C)	<	3	%	
Water solubility :	(20 °C)		Not or little soluble		
pH :			No data available		
log P O/W :			No data available		
Flow time :	(20 °C)		70 - 100	s	DIN-cup 4 mm
Viscosity :	(23 °C)		No data available		
Cinematic viscosity :	(40 °C)	>	20,5	mm^2/s	
Solid content :			No data available		
Odour threshold :			not relevant		
Relative vapour density :	(20 °C)		No data available		
Vapourisation rate :			No data available		
Oxidising liquids :	Not oxidising.				

9.2 Other information

The physical specifications are approximate values and refer to the used safety relevant component(s).

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

Exothermic reaction with: Alkali (lye), concentrated. Acid, concentrated. Oxidizing agent.

10.6 Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity

Parameter : ATEmix calculated
Exposure route : Oral
Effective dose : 90909 mg/kg

Parameter : LD50 (SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. ; CAS No. : 64742-95-6)
Exposure route : Oral
Species : Rat
Effective dose : > 3000 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 (XYLENE ; CAS No. : 1330-20-7)
Exposure route : Oral
Species : Rat
Effective dose : 8700 mg/kg

Parameter : LD50 (Hydrocarbons, C10, aromatics, < 1 % naphthalene ; CAS No. : 64742-94-5)
Exposure route : Oral
Species : Rat
Effective dose : > 5000 mg/kg

Parameter : LD50 (ETHYLBENZENE ; CAS No. : 100-41-4)
Exposure route : Oral
Species : Rat
Effective dose : 3500 mg/kg

Parameter : LD50 (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route : Oral
Species : Rat
Effective dose : 8500 mg/kg

Parameter : LD50 (REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 25068-38-6)
Exposure route : Oral
Species : Rat
Effective dose : > 2000 mg/kg

Parameter : LD50 (FORMALDEHYDE ; CAS No. : 50-00-0)
Exposure route : Oral
Species : Rat
Effective dose : 800 mg/kg

Parameter : LD50 (REACTION PRODUCT: BISPHENOL F-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 9003-36-5)
Exposure route : Oral
Species : Rat
Effective dose : > 9999 mg/kg

Acute dermal toxicity

Parameter : ATEmix calculated
Exposure route : Dermal
Effective dose : 13090 mg/kg

Parameter : LD50 (SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. ; CAS No. : 64742-95-6)
Exposure route : Dermal
Species : Rabbit
Effective dose : > 3000 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 (XYLENE ; CAS No. : 1330-20-7)
Exposure route : Dermal
Species : Rabbit
Effective dose : > 2000 mg/kg
Parameter : LD50 (Hydrocarbons, C10, aromatics, < 1 % naphthalene ; CAS No. : 64742-94-5)
Exposure route : Dermal
Species : Rabbit
Effective dose : > 2000 mg/kg
Parameter : LD50 (ETHYLBENZENE ; CAS No. : 100-41-4)
Exposure route : Dermal
Species : Rabbit
Effective dose : 5000 mg/kg
Parameter : LD50 (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route : Dermal
Species : Rat
Effective dose : > 5000 mg/kg
Parameter : LD50 (REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 25068-38-6)
Exposure route : Dermal
Species : Rabbit
Effective dose : > 2000 mg/kg
Parameter : LD50 (REACTION PRODUCT: BISPHENOL F-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 9003-36-5)
Exposure route : Dermal
Species : Rabbit
Effective dose : > 2000 mg/kg
Parameter : LD50 (FORMALDEHYDE ; CAS No. : 50-00-0)
Exposure route : Dermal
Species : Rabbit
Effective dose : 270 mg/kg

Acute inhalation toxicity

Parameter : ATEmix calculated
Exposure route : Inhalation (vapour)
Effective dose : 111,1 mg/l
Parameter : LC50 (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Exposure route : Inhalation
Species : Rat
Effective dose : 8000 ppm
Parameter : LC50 (XYLENE ; CAS No. : 1330-20-7)
Exposure route : Inhalation
Species : Rat
Effective dose : 6350 mg/l
Parameter : LC50 (Hydrocarbons, C10, aromatics, < 1 % naphthalene ; CAS No. : 64742-94-5)
Exposure route : Inhalation
Species : Rat
Effective dose : > 4688 mg/m^3
Parameter : LC50 (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Exposure route : Inhalation
Species : Rat
Effective dose : 35,7 mg/l
Parameter : LC50 (FORMALDEHYDE ; CAS No. : 50-00-0)
Exposure route : Inhalation
Species : Rat
Effective dose : 490 ppm
Exposure time : 4 h

Assessment/classification

Vapours may cause drowsiness and dizziness.

Irritant and corrosive effects

Irritation to respiratory tract

May cause respiratory irritation.

Sensitisation

In case of skin contact

Practical experience/human evidence

Once sensitized on epoxy constituents, a severe allergic reaction may occur when subsequently exposed to very low levels.

11.3 Symptoms related to the physical, chemical and toxicological characteristics

In case of skin contact

Repeated exposure may cause skin dryness or cracking.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter :	LC50 (SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. ; CAS No. : 64742-95-6)
Species :	Fish
Effective dose :	9,2 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 (XYLENE ; CAS No. : 1330-20-7)
Species :	Oncorhynchus mykiss (Rainbow trout)
Effective dose :	2,6 mg/l
Exposure time :	96 h
Method :	OECD 203
Parameter :	LC50 (Hydrocarbons, C10, aromatics, < 1 % naphthalene ; CAS No. : 64742-94-5)
Species :	Oncorhynchus mykiss (Rainbow trout)
Effective dose :	2 - 5 mg/l
Exposure time :	96 h
Method :	OECD 203
Parameter :	LC50 (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Species :	Oryzias latipes (Ricefish)
Effective dose :	> 100 mg/l
Exposure time :	96 h

Chronic (long-term) fish toxicity

Parameter :	NOEC (XYLENE ; CAS No. : 1330-20-7)
Species :	Oncorhynchus mykiss (Rainbow trout)
Effective dose :	> 1,3 mg/l
Exposure time :	56 Days
Parameter :	NOEC (Hydrocarbons, C10, aromatics, < 1 % naphthalene ; CAS No. : 64742-94-5)
Species :	Oncorhynchus mykiss (Rainbow trout)
Effective dose :	0,441 mg/l
Exposure time :	28 Days
Parameter :	NOEC (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Species :	Oryzias latipes (Ricefish)
Effective dose :	47,5 mg/l
Exposure time :	14 Days

Acute (short-term) daphnia toxicity

Parameter :	EC50 (SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. ; CAS No. : 64742-95-6)
Species :	Daphnia magna (Big water flea)
Effective dose :	3,2 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 (XYLENE ; CAS No. : 1330-20-7)
Species :	Daphnia magna (Big water flea)
Effective dose :	1 mg/l
Exposure time :	24 h
Method :	OECD 202
Parameter :	EC50 (Hydrocarbons, C10, aromatics, < 1 % naphthalene ; CAS No. : 64742-94-5)
Species :	Daphnia magna (Big water flea)
Effective dose :	3 - 10 mg/l
Exposure time :	48 h
Method :	OECD 202
Parameter :	EC50 (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Species :	Daphnia magna (Big water flea)
Effective dose :	> 500 mg/l
Exposure time :	48 h

Chronic (long-term) daphnia toxicity

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 Days
Parameter :	NOEC (XYLENE ; CAS No. : 1330-20-7)
Species :	Daphnia
Effective dose :	1,17 mg/l
Exposure time :	7 Days
Parameter :	NOEC (Hydrocarbons, C10, aromatics, < 1 % naphthalene ; CAS No. : 64742-94-5)
Species :	Daphnia magna (Big water flea)
Effective dose :	0,771 mg/l
Exposure time :	21 Days
Parameter :	NOEC (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Species :	Daphnia magna (Big water flea)
Effective dose :	> 100 mg/l
Exposure time :	21 Days

Acute (short-term) algae toxicity

Parameter :	ErC50 (SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. ; CAS No. : 64742-95-6)
Species :	Pseudokirchneriella subcapitata
Effective dose :	2,6 - 2,9 mg/l
Exposure time :	72 h
Parameter :	EC50 (2-METHYLPROPAN-1-OL ; CAS No. : 78-83-1)
Species :	Pseudokirchneriella subcapitata
Effective dose :	632 mg/l
Exposure time :	72 h
Parameter :	EC50 (XYLENE ; CAS No. : 1330-20-7)
Species :	Pseudokirchneriella subcapitata
Effective dose :	2,2 mg/l
Exposure time :	72 h
Method :	OECD 201
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 (Hydrocarbons, C10, aromatics, < 1 % naphthalene ; CAS No. : 64742-94-5)
Species :	Pseudokirchneriella subcapitata
Effective dose :	1 - 3 mg/l
Exposure time :	72 h
Method :	OECD 201
Parameter :	ErC50 (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Species :	Pseudokirchneriella subcapitata
Effective dose :	> 1000 mg/l
Exposure time :	3 h

Chronic (long-term) algae toxicity

Parameter :	NOEC (XYLENE ; CAS No. : 1330-20-7)
Species :	Pseudokirchneriella subcapitata
Effective dose :	0,44 mg/l
Exposure time :	72 h

Bacteria toxicity

Parameter :	EC50 (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Species :	Mysidopsis bahia
Effective dose :	> 1000 mg/l
Exposure time :	0,5 h

12.2 Persistence and degradability

Biodegradation

Parameter :	Biodegradation (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Inoculum :	Biodegradation
Effective dose :	100 %
Exposure time :	8 Days
Parameter :	Biodegradation (2-METHOXY-1-METHYLETHYL ACETATE ; CAS No. : 108-65-6)
Inoculum :	Biodegradation
Effective dose :	> 90 %
Exposure time :	28 Days

The solvent is biodegradable. In accordance with the required stability the product is poorly biodegradable.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

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 Other adverse effects

No information available.

12.7 Additional ecotoxicological information

Additional information

Do not allow uncontrolled discharge of product into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Dispose according to legislation.

Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

EWC-Code: 08 01 11.

Waste code packaging

Uncleaned packaging: EWC-Code: 15 01 10. Cleaned packaging: EWC-Code: 15 01 04.

Waste treatment options

Appropriate disposal / Package

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

13.2 Additional information

Note sections 7 and 8.

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

SECTION 15: Regulatory information

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

EU legislation

Other regulations (EU)

Restrictions of occupation

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

National regulations

Technische Anleitung Luft (TA-Luft)

Weight fraction (Number 5.2.5. I) : < 0,5 %

Weight fraction (Number 5.2.7. III) : < 1 %

Water hazard class (WGK)

Class : 3 (Strongly hazardous to water) Classification according to AwSV

Other regulations, restrictions and prohibition regulations

Note TRGS 001. Note TRGS 400.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Indication of changes

02. Special rules for supplemental label elements for certain mixtures · 15. Restrictions on use · 15. Water hazard class (WGK)

16.2 Abbreviations and acronyms

TRGS: German Technical Rule for Hazardous Substances. BGR(I): Rule (Information) from the german employers liability insurance association. DGUV: German Statutory Accident Insurance. AwSV: Ordinance on plants for the handling of substances hazardous to water. VCI: German chemical industry association. EWC: European Waste Catalogue.

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]

Calculation method.

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

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
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.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
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.