





**BOLL****UTWARDZACZ DO PODKŁADU EPOKSYDOWEGO 1:1 - HARDENER FOR EPOXY PRIMER****SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

- 1.1 Product identifier:** UTWARDZACZ DO PODKŁADU EPOKSYDOWEGO 1:1 - HARDENER FOR EPOXY PRIMER
- Other means of identification:**
- UFI:** UEY9-A2AA-J00H-TA6S
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
- Relevant uses (Professional users): Hardener for coatings  
 Relevant uses (Industrial user): Hardener for coatings  
 Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
- "BOLL" Wojciech Dalewski Spółka Jawna  
 ul. Chemiczna 3  
 65-713 Zielona Góra - Polska  
 Phone: 68 451 99 99 - Fax: 68 451 99 00  
 huszcza@boll.pl  
<https://www.boll.pl>
- 1.4 Emergency telephone number:**

**SECTION 2: HAZARDS IDENTIFICATION \*\***

- 2.1 Classification of the substance or mixture:**
- CLP Regulation (EC) No 1272/2008:**
- Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.
- Acute Tox. 4: Acute toxicity, Category 4, H312+H332  
 Eye Dam. 1: Serious eye damage, Category 1, H318  
 Flam. Liq. 3: Flammable liquids, Category 3, H226  
 Skin Irrit. 2: Skin irritation, Category 2, H315  
 STOT RE 2: Specific target organ toxicity — Repeated exposure, Hazard Category 2, H373  
 STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335
- 2.2 Label elements:**
- CLP Regulation (EC) No 1272/2008:**
- Danger**
-    
- Hazard statements:**
- H226 - Flammable liquid and vapour.  
 H312+H332 - Harmful in contact with skin or if inhaled.  
 H315 - Causes skin irritation.  
 H318 - Causes serious eye damage.  
 H335 - May cause respiratory irritation.  
 H373 - May cause damage to organs through prolonged or repeated exposure.
- Precautionary statements:**
- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P260: Do not breathe vapours  
 P264: Wash hands thoroughly after handling  
 P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.  
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310: Immediately call a poison center/doctor.  
 P370+P378: In case of fire: Use Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC) to extinguish.
- Substances that contribute to the classification**

\*\* Changes with regards to the previous version

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**BOLL****UTWARDZACZ DO PODKŁADU EPOKSYDOWEGO 1:1 - HARDENER FOR EPOXY PRIMER****SECTION 2: HAZARDS IDENTIFICATION \*\* (continued)**

Reaction mass of ethylbenzene and m-xylene and p-xylene; Xylene; butan-1-ol; Fatty acids, C18-unsatd., dimers, oligomeric reaction products with fatty acids, C16-18 and C18-unsatd., branched and linear and triethylenetetramine

**UFI:** UEY9-A2AA-J00H-TA6S

**2.3 Other hazards:**

Product does not meet PBT/vPvB criteria

Endocrine-disrupting properties: The product does not meet the criteria.

**\*\* Changes with regards to the previous version**

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS \*\*****3.1 Substance:**

Not relevant

**3.2 Mixture:**

**Chemical description:** Mixture composed of chemical products

**Components:**

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification	Concentration
CAS: Not relevant EC: 905-562-9 Index: Not relevant REACH: 01-2119555267-33-XXXX	<b>Reaction mass of ethylbenzene and m-xylene and p-xylene<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Acute Tox. 4: H312+H332; Aquatic Chronic 3: H412; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT RE 2: H373; STOT SE 3: H335 - Danger	30 - <50%
CAS: 157707-71-6 EC: 500-380-2 Index: Not relevant REACH: Not relevant	<b>Polyaminoamide adduct<sup>(2)</sup></b> Not classified Regulation 1272/2008	20 - <30%
CAS: 1330-20-7 EC: 215-535-7 Index: 601-022-00-9 REACH: 01-2119488216-32-XXXX	<b>Xylene<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Acute Tox. 4: H312+H332; Aquatic Chronic 3: H412; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT RE 2: H373; STOT SE 3: H335 - Danger	10 - <20%
CAS: 71-36-3 EC: 200-751-6 Index: 603-004-00-6 REACH: 01-2119484630-38-XXXX	<b>butan-1-ol<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Acute Tox. 4: H302; Eye Dam. 1: H318; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H335; STOT SE 3: H336 - Danger	3 - <10%
CAS: 157707-72-7 EC: 500-381-8 Index: Not relevant REACH: Not relevant	<b>Fatty acids, C18-unsatd., dimers, oligomeric reaction products with fatty acids, C16-18 and C18-unsatd., branched and linear and triethylenetetramine<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Aquatic Chronic 3: H412; Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	3 - <10%
CAS: 90-72-2 EC: 202-013-9 Index: 603-069-00-0 REACH: 01-2119560597-27-XXXX	<b>2,4,6-tris(dimethylaminomethyl)phenol<sup>(1)</sup></b> ATP CLP00 Regulation 1272/2008 Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	3 - <5%

<sup>(1)</sup> Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

<sup>(2)</sup> Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2020/878

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity	Genus
butan-1-ol CAS: 71-36-3 EC: 200-751-6	LD50 oral 500 mg/kg LD50 dermal Not relevant LC50 inhalation vapour Not relevant	
Xylene CAS: 1330-20-7 EC: 215-535-7	LD50 oral Not relevant LD50 dermal 1100 mg/kg LC50 inhalation vapour 17 mg/L	Rat Rat

**\*\* Changes with regards to the previous version**

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS \*\* (continued)**

Identification	Acute toxicity		Genus
Reaction mass of ethylbenzene and m-xylene and p-xylene CAS: Not relevant EC: 905-562-9	LD50 oral	Not relevant	
	LD50 dermal	1100 mg/kg	Rat
	LC50 inhalation vapour	11 mg/L	
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	LD50 oral	1200 mg/kg	Rat
	LD50 dermal	Not relevant	
	LC50 inhalation vapour	Not relevant	

\*\* Changes with regards to the previous version

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

**4.2 Most important symptoms and effects, both acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

**4.3 Indication of any immediate medical attention and special treatment needed:**

Not available

**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media:****Suitable extinguishing media:**

Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC)

**Unsuitable extinguishing media:**

Water jet

**5.2 Special hazards arising from the substance or mixture:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Advice for firefighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and Self Contained Breathing Apparatus. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

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## SECTION 5: FIREFIGHTING MEASURES (continued)

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

#### For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

#### For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

### 6.2 Environmental precautions:

It is recommended to avoid environmental spillage of both the product and its container.

### 6.3 Methods and material for containment and cleaning up:

It is recommended:

Prevent the entrance of product in drains, sewers or watercourses. Absorb the spill using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Collect the product in appropriate containers and manage it according to current legislation.

Spillages in water or sea:

Small spillages:

Contain spillage using barriers or similar equipment. Use suitable absorbents for collection and treat the waste in accordance with current regulations.

Large spillages:

If possible, contain spillage in open water using barriers or similar equipment. If this is not possible, try to control its spread and collect the product with suitable mechanical means. Always consult experts before using dispersants and make sure you have the necessary approvals if they are to be used. Treat the waste according to current regulations.

### 6.4 Reference to other sections:

See sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

#### A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

#### B.- Technical recommendations for the prevention of fires and explosions

Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,...) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 2014/34/EC (ATEX 100) and with the minimum requirements for protecting the security and health of workers under the selection criteria of Directive 1999/92/EC (ATEX 137). Consult section 10 for conditions and materials that should be avoided.

#### C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

#### D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

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## SECTION 7: HANDLING AND STORAGE (continued)

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

A.- Specific storage requirements

Minimum Temp.: 10 °C  
Maximum Temp.: 25 °C  
Maximum time: 24 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

### 7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC, Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification	Occupational exposure limits		
Reaction mass of ethylbenzene and m-xylene and p-xylene	IOELV (8h)	50 ppm	221 mg/m <sup>3</sup>
CAS: Not relevant EC: 905-562-9	IOELV (STEL)	100 ppm	442 mg/m <sup>3</sup>
Xylene <sup>(1)</sup>	IOELV (8h)	50 ppm	221 mg/m <sup>3</sup>
CAS: 1330-20-7 EC: 215-535-7	IOELV (STEL)	100 ppm	442 mg/m <sup>3</sup>

<sup>(1)</sup> Skin

### DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Reaction mass of ethylbenzene and m-xylene and p-xylene CAS: Not relevant EC: 905-562-9	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	212 mg/kg	Not relevant
	Inhalation	442 mg/m <sup>3</sup>	442 mg/m <sup>3</sup>	221 mg/m <sup>3</sup>	221 mg/m <sup>3</sup>
Xylene CAS: 1330-20-7 EC: 215-535-7	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	212 mg/kg	Not relevant
	Inhalation	442 mg/m <sup>3</sup>	442 mg/m <sup>3</sup>	221 mg/m <sup>3</sup>	221 mg/m <sup>3</sup>
butan-1-ol CAS: 71-36-3 EC: 200-751-6	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	310 mg/m <sup>3</sup>
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0,15 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,53 mg/m <sup>3</sup>	Not relevant

### DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Reaction mass of ethylbenzene and m-xylene and p-xylene CAS: Not relevant EC: 905-562-9	Oral	Not relevant	Not relevant	12,5 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	125 mg/kg	Not relevant
	Inhalation	260 mg/m <sup>3</sup>	260 mg/m <sup>3</sup>	65,3 mg/m <sup>3</sup>	65,3 mg/m <sup>3</sup>
Xylene CAS: 1330-20-7 EC: 215-535-7	Oral	Not relevant	Not relevant	12,5 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	125 mg/kg	Not relevant
	Inhalation	260 mg/m <sup>3</sup>	260 mg/m <sup>3</sup>	65,3 mg/m <sup>3</sup>	65,3 mg/m <sup>3</sup>
butan-1-ol CAS: 71-36-3 EC: 200-751-6	Oral	Not relevant	Not relevant	1,562 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	3,125 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	55,357 mg/m <sup>3</sup>	155 mg/m <sup>3</sup>

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	Oral	Not relevant	Not relevant	0,075 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	0,075 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,13 mg/m <sup>3</sup>	Not relevant

**PNEC:**



Identification					
Reaction mass of ethylbenzene and m-xylene and p-xylene CAS: Not relevant EC: 905-562-9	STP	6,58 mg/L	Fresh water	0,327 mg/L	
	Soil	2,31 mg/kg	Marine water	0,327 mg/L	
	Intermittent	0,327 mg/L	Sediment (Fresh water)	12,46 mg/kg	
	Oral	Not relevant	Sediment (Marine water)	12,46 mg/kg	
Xylene CAS: 1330-20-7 EC: 215-535-7	STP	6,58 mg/L	Fresh water	0,327 mg/L	
	Soil	2,31 mg/kg	Marine water	0,327 mg/L	
	Intermittent	0,327 mg/L	Sediment (Fresh water)	12,46 mg/kg	
	Oral	Not relevant	Sediment (Marine water)	12,46 mg/kg	
butan-1-ol CAS: 71-36-3 EC: 200-751-6	STP	2476 mg/L	Fresh water	0,082 mg/L	
	Soil	0,017 mg/kg	Marine water	0,008 mg/L	
	Intermittent	2,25 mg/L	Sediment (Fresh water)	0,324 mg/kg	
	Oral	Not relevant	Sediment (Marine water)	0,032 mg/kg	
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	STP	0,2 mg/L	Fresh water	0,046 mg/L	
	Soil	0,025 mg/kg	Marine water	0,005 mg/L	
	Intermittent	0,46 mg/L	Sediment (Fresh water)	0,262 mg/kg	
	Oral	Not relevant	Sediment (Marine water)	0,026 mg/kg	

**8.2 Exposure controls:**
**A.- Individual protection measures, such as personal protective equipment**



In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have CE marking in accordance with Directive 2016/425/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

**B.- Respiratory protection**

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours	 CAT III	EN 405:2002+A1:2010	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

**C.- Specific protection for the hands**



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Linear low-density polyethylene (LLDPE), Breakthrough time: > 480 min, Thickness: 0.062 mm)	 CAT III	EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.





**D.- Eye and face protection**

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield		EN 166:2002 UNE-EN ISO 18526-1 al 4:2020 UNE-EN ISO 18526-1 al 4:2020 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

**E.- Body protection**

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties		EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2005/A1:2011 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1995	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties		EN ISO 13287:2020 EN ISO 20345:2022 EN 13832-1:2019	Replace boots at any sign of deterioration.

**F.- Additional emergency measures**

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

**Environmental exposure controls:**

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**

Physical state at 20 °C:	Liquid
Appearance:	Fluid
Colour:	Yellowish
Odour:	Characteristic
Odour threshold:	Not available *

**Volatility:**

Boiling point at atmospheric pressure:	Not available *
Vapour pressure at 20 °C:	Not available *
Vapour pressure at 50 °C:	Not available *
Evaporation rate at 20 °C:	Not available *

**Product description:**

Density at 20 °C:	902 kg/m <sup>3</sup>
Relative density at 20 °C:	0,902
Dynamic viscosity at 20 °C:	Not available *

\*Not available due to the nature of the product, not providing information property of its hazards.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

Kinematic viscosity at 20 °C:	Not available *
Kinematic viscosity at 40 °C:	>20,5 mm <sup>2</sup> /s
Concentration:	Not available *
pH:	Not available *
Vapour density at 20 °C:	Not available *
Partition coefficient n-octanol/water 20 °C:	Not available *
Solubility in water at 20 °C:	Not available *
Solubility properties:	Solvent miscible
Decomposition temperature:	Not available *
Melting point/freezing point:	Not available *

**Flammability:**

Flash Point:	28 °C
Flammability (solid, gas):	Not available *
Autoignition temperature:	Not available *
Lower flammability limit:	Not available *
Upper flammability limit:	Not available *

**Particle characteristics:**

Median equivalent diameter:	Not available *
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**9.2 Other information:****Information with regard to physical hazard classes:**

Explosive properties:	Not available *
Oxidising properties:	Not available *
Corrosive to metals:	Not available *
Heat of combustion:	Not available *
Aerosols-total percentage (by mass) of flammable components:	Not available *

**Other safety characteristics:**

Surface tension at 20 °C:	Not available *
Refraction index:	Not available *

\*Not available due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

**10.2 Chemical stability:**

Chemically stable under the indicated conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

**10.5 Incompatible materials:**

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

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## SECTION 10: STABILITY AND REACTIVITY (continued)

### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION \*\*

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

The experimental information related to the toxicological properties of the product itself is not available

#### Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

#### A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

#### B- Inhalation (acute effect):

- Acute toxicity : Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

#### C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

#### D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.  
IARC: Xylene (3: Not classifiable as to its carcinogenicity to humans); Reaction mass of ethylbenzene and m-xylene and p-xylene (3: Not classifiable as to its carcinogenicity to humans)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

#### E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with sensitising effects. For more information see section 3.

#### F- Specific target organ toxicity (STOT) - single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

#### G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

#### H- Aspiration hazard:

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

#### Other information:

\*\* Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -

## SECTION 11: TOXICOLOGICAL INFORMATION \*\* (continued)

Not relevant

### Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
butan-1-ol CAS: 71-36-3 EC: 200-751-6	LD50 oral	500 mg/kg	
	LD50 dermal	3400 mg/kg	Rabbit
	LC50 inhalation vapour	24 mg/L (4 h)	Rat
Xylene CAS: 1330-20-7 EC: 215-535-7	LD50 oral	2100 mg/kg	Rat
	LD50 dermal	1100 mg/kg	Rat
	LC50 inhalation vapour	17 mg/L	Rat
Reaction mass of ethylbenzene and m-xylene and p-xylene CAS: Not relevant EC: 905-562-9	LD50 oral	2100 mg/kg	Rat
	LD50 dermal	1100 mg/kg	Rat
	LC50 inhalation vapour	11 mg/L	
2,4,6-tris(dimethylaminomethyl)phenol CAS: 90-72-2 EC: 202-013-9	LD50 oral	1200 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation vapour	>20 mg/L	
Polyaminoamide adduct CAS: 157707-71-6 EC: 500-380-2	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation vapour	>20 mg/L	
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with fatty acids, C16-18 and C18-unsatd., branched and linear and triethylenetetramine CAS: 157707-72-7 EC: 500-381-8	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation vapour	>20 mg/L	

### 11.2 Information on other hazards:

#### Endocrine disrupting properties

Endocrine-disrupting properties: The product does not meet the criteria.

#### Other information

Not relevant

\*\* Changes with regards to the previous version

## SECTION 12: ECOLOGICAL INFORMATION \*\*

The experimental information related to the eco-toxicological properties of the product itself is not available

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

### 12.1 Toxicity:

#### Acute toxicity:

Identification	Concentration		Species	Genus
Reaction mass of ethylbenzene and m-xylene and p-xylene CAS: Not relevant EC: 905-562-9	LC50	>10 - 100 mg/L (96 h)		Fish
	EC50	>10 - 100 mg/L (48 h)		Crustacean
	EC50	>10 - 100 mg/L (72 h)		Algae
Xylene CAS: 1330-20-7 EC: 215-535-7	LC50	>10 - 100 mg/L (96 h)		Fish
	EC50	>10 - 100 mg/L (48 h)		Crustacean
	EC50	>10 - 100 mg/L (72 h)		Algae
butan-1-ol CAS: 71-36-3 EC: 200-751-6	LC50	1740 mg/L (96 h)	Pimephales promelas	Fish
	EC50	1983 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	500 mg/L (96 h)	Scenedesmus subspicatus	Algae
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with fatty acids, C16-18 and C18-unsatd., branched and linear and triethylenetetramine CAS: 157707-72-7 EC: 500-381-8	LC50	>10 - 100 mg/L (96 h)		Fish
	EC50	>10 - 100 mg/L (48 h)		Crustacean
	EC50	>10 - 100 mg/L (72 h)		Algae

\*\* Changes with regards to the previous version

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**SECTION 12: ECOLOGICAL INFORMATION \*\* (continued)**

Identification	Concentration	Species	Genus
2,4,6-tris(dimethylaminomethyl)phenol	LC50 345 mg/L (96 h)	QSAR	Fish
CAS: 90-72-2	EC50 Not relevant		
EC: 202-013-9	EC50 Not relevant		

**Chronic toxicity:**

Identification	Concentration	Species	Genus
Reaction mass of ethylbenzene and m-xylene and p-xylene	NOEC 1,3 mg/L	Oncorhynchus mykiss	Fish
CAS: Not relevant EC: 905-562-9	NOEC 1,17 mg/L	Ceriodaphnia dubia	Crustacean
Xylene	NOEC 1,3 mg/L	Oncorhynchus mykiss	Fish
CAS: 1330-20-7 EC: 215-535-7	NOEC 1,17 mg/L	Ceriodaphnia dubia	Crustacean
butan-1-ol	NOEC Not relevant		
CAS: 71-36-3 EC: 200-751-6	NOEC 4,1 mg/L	Daphnia magna	Crustacean

**12.2 Persistence and degradability:**
**Substance-specific information:**

Identification	Degradability	Biodegradability
Reaction mass of ethylbenzene and m-xylene and p-xylene	BOD5 Not relevant	Concentration Not relevant
CAS: Not relevant	COD Not relevant	Period 28 days
EC: 905-562-9	BOD5/COD Not relevant	% Biodegradable 88 %
Xylene	BOD5 Not relevant	Concentration Not relevant
CAS: 1330-20-7	COD Not relevant	Period 28 days
EC: 215-535-7	BOD5/COD Not relevant	% Biodegradable 88 %
butan-1-ol	BOD5 1,71 g O2/g	Concentration Not relevant
CAS: 71-36-3	COD 2,46 g O2/g	Period 19 days
EC: 200-751-6	BOD5/COD 0,7	% Biodegradable 98 %

**12.3 Bioaccumulative potential:**
**Substance-specific information:**

Identification	Bioaccumulation potential
Reaction mass of ethylbenzene and m-xylene and p-xylene	BCF 9
CAS: Not relevant	Pow Log 2.77
EC: 905-562-9	Potential Low
Xylene	BCF 9
CAS: 1330-20-7	Pow Log 2.77
EC: 215-535-7	Potential Low
butan-1-ol	BCF 1
CAS: 71-36-3	Pow Log 0.88
EC: 200-751-6	Potential Low
2,4,6-tris(dimethylaminomethyl)phenol	BCF 3
CAS: 90-72-2	Pow Log 0.77
EC: 202-013-9	Potential Low

**12.4 Mobility in soil:**

Identification	Absorption/desorption	Volatility
Reaction mass of ethylbenzene and m-xylene and p-xylene	Koc 202	Henry 524,86 Pa·m³/mol
CAS: Not relevant	Conclusion Moderate	Dry soil Yes
EC: 905-562-9	Surface tension Not relevant	Moist soil Yes
Xylene	Koc 202	Henry 524,86 Pa·m³/mol
CAS: 1330-20-7	Conclusion Moderate	Dry soil Yes
EC: 215-535-7	Surface tension Not relevant	Moist soil Yes
butan-1-ol	Koc 2,44	Henry 5,39E-2 Pa·m³/mol
CAS: 71-36-3	Conclusion Very High	Dry soil Yes
EC: 200-751-6	Surface tension 2,567E-2 N/m (25 °C)	Moist soil Yes

\*\* Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -

## SECTION 12: ECOLOGICAL INFORMATION \*\* (continued)

Identification	Absorption/desorption		Volatility	
2,4,6-tris(dimethylaminomethyl)phenol	Koc	15130	Henry	9,312E-12 Pa·m <sup>3</sup> /mol
CAS: 90-72-2	Conclusion	Immobile	Dry soil	Not relevant
EC: 202-013-9	Surface tension	Not relevant	Moist soil	Not relevant

### 12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

### 12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

### 12.7 Other adverse effects:

Not described

*\*\* Changes with regards to the previous version*

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances	Hazardous

#### Type of waste (Regulation (EU) No 1357/2014):

HP3 Flammable, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP4 Irritant — skin irritation and eye damage

#### Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

#### Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

## SECTION 14: TRANSPORT INFORMATION

### Transport of dangerous goods by land:

With regard to ADR 2025 and RID 2025:



- 14.1 UN number or ID number:** UN1263
- 14.2 UN proper shipping name:** PAINT
- 14.3 Transport hazard class(es):** 3
- Labels:** 3
- 14.4 Packing group:** III
- 14.5 Environmental hazards:** No
- 14.6 Special precautions for user**
  - Special regulations: 163, 367, 650
  - Tunnel restriction code: D/E
  - Physico-Chemical properties: see section 9
  - Limited quantities: 5 L
- 14.7 Maritime transport in bulk according to IMO instruments:** Not relevant

### Transport of dangerous goods by sea:

With regard to IMDG 42-24:

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**BOLL****UTWARDZACZ DO PODKŁADU EPOKSYDOWEGO 1:1 - HARDENER FOR EPOXY PRIMER****SECTION 14: TRANSPORT INFORMATION (continued)**

- 14.1 UN number or ID number:** UN1263  
**14.2 UN proper shipping name:** PAINT  
**14.3 Transport hazard class(es):** 3  
 Labels: 3  
**14.4 Packing group:** III  
**14.5 Marine pollutant:** No  
**14.6 Special precautions for user**  
 Special regulations: 223, 955, 163, 367  
 EmS Codes: F-E, S-E  
 Physico-Chemical properties: see section 9  
 Limited quantities: 5 L  
 Segregation group: Not relevant  
**14.7 Maritime transport in bulk according to IMO instruments:** Not relevant

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2025:



- 14.1 UN number or ID number:** UN1263  
**14.2 UN proper shipping name:** PAINT  
**14.3 Transport hazard class(es):** 3  
 Labels: 3  
**14.4 Packing group:** III  
**14.5 Environmental hazards:** No  
**14.6 Special precautions for user**  
 Physico-Chemical properties: see section 9  
**14.7 Maritime transport in bulk according to IMO instruments:** Not relevant

**SECTION 15: REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

- Article 95, REGULATION (EU) No 528/2012: Not relevant
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Not relevant
- Regulation (EU) 2019/1021 on persistent organic pollutants: Not relevant
- Regulation (EU) No 2024/590, about substances that deplete the ozone layer: Not relevant
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Not relevant
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Not relevant

**Seveso III:**

Section	Description	Lower-tier requirements	Upper-tier requirements
P5c	FLAMMABLE LIQUIDS	5000,000	50000,000

**Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....):**

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

**Other legislation:**

The product could be affected by sectorial legislation

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## SECTION 15: REGULATORY INFORMATION (continued)

### 15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

## SECTION 16: OTHER INFORMATION \*\*

### Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

### Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12):

· New declared substances

Xylene (1330-20-7)

Polyaminoamide adduct (157707-71-6)

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with fatty acids, C16-18 and C18-unsatd., branched and linear and triethylenetetramine (157707-72-7)

· Removed substances

3,6-diazaoctanethylenediamin (112-24-3)

Bis[(dimethylamino)methyl]phenol (71074-89-0)

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine (68082-29-

1)

Substances that contribute to the classification (SECTION 2):

· New declared substances

Xylene (1330-20-7)

butan-1-ol (71-36-3)

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with fatty acids, C16-18 and C18-unsatd., branched and linear and triethylenetetramine (157707-72-7)

· Removed substances

3,6-diazaoctanethylenediamin (112-24-3)

Bis[(dimethylamino)methyl]phenol (71074-89-0)

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine (68082-29-

1)

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

· Hazard statements

### Texts of the legislative phrases mentioned in section 2:

H226: Flammable liquid and vapour.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H373: May cause damage to organs through prolonged or repeated exposure.

H312+H332: Harmful in contact with skin or if inhaled.

### Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

### CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H302 - Harmful if swallowed.

Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled.

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.

Eye Dam. 1: H318 - Causes serious eye damage.

Eye Irrit. 2: H319 - Causes serious eye irritation.

Flam. Liq. 3: H226 - Flammable liquid and vapour.

Skin Irrit. 2: H315 - Causes skin irritation.

Skin Sens. 1: H317 - May cause an allergic skin reaction.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral).

STOT SE 3: H335 - May cause respiratory irritation.

STOT SE 3: H336 - May cause drowsiness or dizziness.

### Classification procedure:

\*\* Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -

**UTWARDZACZ DO PODKŁADU EPOKSYDOWEGO 1:1 - HARDENER FOR EPOXY PRIMER****SECTION 16: OTHER INFORMATION \*\* (continued)**

Flam. Liq. 3: Calculation method (2.6.4.3)

Skin Irrit. 2: Calculation method

Eye Dam. 1: Calculation method

STOT SE 3: Calculation method

STOT RE 2: Calculation method

Acute Tox. 4: Calculation method

**Advice related to training:**

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

**Abbreviations and acronyms:**

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

LogPOW: Octanolwater partition coefficient

Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer

*\*\* Changes with regards to the previous version*

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -