



Safety data sheet


This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

ŻYWICA POLIESTROWA - POLYESTER RESIN

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** ŻYWICA POLIESTROWA - POLYESTER RESIN
Other means of identification:
Contains: styrene, maleic anhydride, phthalic anhydride, reaction product of bisphenol A with epichlorohydrin; epoxy resin (average molecular weight ≤ 700).
UFI: U626-D0WK-C00R-TMWD
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: The product is intended for professional use, for car body repair and polyester laminates.
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:**
Agencja Handlowa 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
- 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.
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
Eye Irrit. 2: Eye irritation, Category 2, H319
Flam. Liq. 3: Flammable liquids, Category 3, H226
Repr. 2: Reproductive toxicity, Category 2, H361d
Skin Irrit. 2: Skin irritation, Category 2, H315
Skin Sens. 1A: Sensitisation, skin, Category 1A, H317
STOT RE 1: Specific target organ toxicity — Repeated exposure, Hazard Category 1 (Inhalation), H372
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.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H361d - Suspected of damaging the unborn child.
H372 - Causes damage to organs through prolonged or repeated exposure (Inhalation).
H412 - Harmful to aquatic life with long lasting effects.
- Precautionary statements:**
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/respiratory protection/eye protection.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P314: Get medical advice/attention if you feel unwell.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
- Substances that contribute to the classification**

** Changes with regards to the previous version

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SECTION 2: HAZARDS IDENTIFICATION ** (continued)

styrene; phthalic anhydride; reaction product: bisphenol-A-(epichlorhydrin) (MW < 700); maleic anhydride

UFI: U626-D0WK-C00R-TMWD

2.3 Other hazards:

Product fails to meet PBT/vPvB criteria

Endocrine-disrupting properties: The product fails to meet the criteria.

** Changes with regards to the previous version

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: a mixture of organic and auxiliary substances

Components:

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

Identification	Chemical name/Classification	Concentration
CAS: 100-42-5 EC: 202-851-5 Index: 601-026-00-0 REACH: 01-2119457861-32-XXXX	styrene⁽¹⁾ Self-classified	<38 %
	Regulation 1272/2008 Acute Tox. 4: H332; Aquatic Chronic 3: H412; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Repr. 2: H361d; Skin Irrit. 2: H315; STOT RE 1: H372; STOT SE 3: H335 - Danger	
CAS: 111-46-6 EC: 203-872-2 Index: 603-140-00-6 REACH: 01-2119457857-21-XXXX	2,2' -oxybisethanol⁽¹⁾ Self-classified	<1,2 %
	Regulation 1272/2008 Acute Tox. 4: H302; STOT RE 2: H373 - Warning	
CAS: 85-44-9 EC: 201-607-5 Index: 607-009-00-4 REACH: 01-2119457017-41-XXXX	phthalic anhydride⁽¹⁾ ATP CLP00	<1 %
	Regulation 1272/2008 Acute Tox. 4: H302; Eye Dam. 1: H318; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT SE 3: H335 - Danger	
CAS: 25068-38-6 EC: 500-033-5 Index: 603-074-00-8 REACH: Non-applicable	reaction product: bisphenol-A-(epichlorhydrin) (MW < 700)⁽¹⁾ ATP CLP00	<0,6 %
	Regulation 1272/2008 Aquatic Chronic 2: H411; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning	
CAS: 107-21-1 EC: 203-473-3 Index: 603-027-00-1 REACH: 01-2119456816-28-XXXX	Ethenediol⁽¹⁾ Self-classified	<0,1 %
	Regulation 1272/2008 Acute Tox. 4: H302; STOT RE 2: H373 - Warning	
CAS: 108-31-6 EC: 203-571-6 Index: 607-096-00-9 REACH: 01-2119472428-31-XXXX	maleic anhydride⁽¹⁾ ATP ATP13	<0,1 %
	Regulation 1272/2008 Acute Tox. 4: H302; Eye Dam. 1: H318; Resp. Sens. 1: H334; Skin Corr. 1B: H314; Skin Sens. 1A: H317; STOT RE 1: H372; EUH071 - Danger	

⁽¹⁾ 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.

Other information:

Identification	Specific concentration limit
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	% (w/w) >=5: Skin Irrit. 2 - H315 % (w/w) >=5: Eye Irrit. 2 - H319
maleic anhydride CAS: 108-31-6 EC: 203-571-6	% (w/w) >=0,001: Skin Sens. 1A - H317

SECTION 4: FIRST AID MEASURES

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**ŻYWICA POLIESTROWA - POLYESTER RESIN****SECTION 4: FIRST AID MEASURES (continued)****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:

Non-applicable

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

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂).

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

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 (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

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:**

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SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

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:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

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

PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in designated areas that comply with the necessary safety conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to small amounts only. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 10 °C

Maximum Temp.: 20 °C

Maximum time: 12 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.

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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		
	Ethanediol CAS: 107-21-1 EC: 203-473-3	IOELV (8h)	20 ppm
	IOELV (STEL)	40 ppm	104 mg/m ³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
styrene CAS: 100-42-5 EC: 202-851-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	406 mg/kg	Non-applicable
	Inhalation	289 mg/m ³	306 mg/m ³	85 mg/m ³	Non-applicable
2,2'-oxybisethanol CAS: 111-46-6 EC: 203-872-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	43 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	44 mg/m ³	60 mg/m ³
phthalic anhydride CAS: 85-44-9 EC: 201-607-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	10 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	32,2 mg/m ³	Non-applicable
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,75 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	4,93 mg/m ³	Non-applicable
Ethanediol CAS: 107-21-1 EC: 203-473-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	106 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	35 mg/m ³
maleic anhydride CAS: 108-31-6 EC: 203-571-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	0,2 mg/m ³	0,2 mg/m ³	0,081 mg/m ³	0,081 mg/m ³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
styrene CAS: 100-42-5 EC: 202-851-5	Oral	Non-applicable	Non-applicable	2,1 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	343 mg/kg	Non-applicable
	Inhalation	174,25 mg/m ³	182,75 mg/m ³	10,2 mg/m ³	Non-applicable
2,2'-oxybisethanol CAS: 111-46-6 EC: 203-872-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	21 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	12 mg/m ³	12 mg/m ³
phthalic anhydride CAS: 85-44-9 EC: 201-607-5	Oral	Non-applicable	Non-applicable	5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	8,6 mg/m ³	Non-applicable
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	Oral	Non-applicable	Non-applicable	0,5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,0893 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0,87 mg/m ³	Non-applicable
Ethanediol CAS: 107-21-1 EC: 203-473-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	53 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	7 mg/m ³

PNEC:

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
styrene CAS: 100-42-5 EC: 202-851-5	STP	5 mg/L	Fresh water	0,028 mg/L
	Soil	0,2 mg/kg	Marine water	0,014 mg/L
	Intermittent	0,04 mg/L	Sediment (Fresh water)	0,614 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,307 mg/kg
2,2´ -oxybisethanol CAS: 111-46-6 EC: 203-872-2	STP	199,5 mg/L	Fresh water	10 mg/L
	Soil	1,53 mg/kg	Marine water	1 mg/L
	Intermittent	10 mg/L	Sediment (Fresh water)	20,9 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	2,09 mg/kg
phthalic anhydride CAS: 85-44-9 EC: 201-607-5	STP	10 mg/L	Fresh water	1 mg/L
	Soil	0,173 mg/kg	Marine water	0,1 mg/L
	Intermittent	5,6 mg/L	Sediment (Fresh water)	3,8 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,38 mg/kg
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	STP	10 mg/L	Fresh water	0,006 mg/L
	Soil	0,065 mg/kg	Marine water	0,001 mg/L
	Intermittent	0,018 mg/L	Sediment (Fresh water)	0,341 mg/kg
	Oral	0,011 g/kg	Sediment (Marine water)	0,034 mg/kg
Ethanediol CAS: 107-21-1 EC: 203-473-3	STP	199,5 mg/L	Fresh water	10 mg/L
	Soil	1,53 mg/kg	Marine water	1 mg/L
	Intermittent	10 mg/L	Sediment (Fresh water)	37 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	3,7 mg/kg
maleic anhydride CAS: 108-31-6 EC: 203-571-6	STP	44,6 mg/L	Fresh water	0,038 mg/L
	Soil	0,037 mg/kg	Marine water	0,004 mg/L
	Intermittent	0,379 mg/L	Sediment (Fresh water)	0,296 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,03 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 (Filter type: FFP2)		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: Nitrile/Neoprene, Breakthrough time: > 480 min, Thickness: 0.38 mm)		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	Panoramic glasses against splash/projections.		EN 166:2002 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	Antistatic and fireproof protective clothing		EN 1149-1:2006 EN 1149-2:1997 EN 1149-3:2004 EN 168:2002 EN ISO 14116:2015 EN 1149-5:2018	Limited protection against flames.

F.- Additional emergency measures

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:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see 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:	Aromatic
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	145 °C
Vapour pressure at 20 °C:	665 Pa
Vapour pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1060 - 1160 kg/m ³
Relative density at 20 °C:	1,06 - 1,16
Dynamic viscosity at 20 °C:	400 - 600 cP
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *

*Not relevant 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)

Partition coefficient n-octanol/water 20 °C:	2,96
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Insoluble in water
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *

Flammability:

Flash Point:	>31 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	490 °C
Lower flammability limit:	0,9 % Volume
Upper flammability limit:	<6,1 % Volume

Particle characteristics:

Median equivalent diameter:	Non-applicable
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9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *

Other safety characteristics:

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *
VOC value (VOC) <540 g / l.	
VOC limit value: 540 g / l	

*Not relevant 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.

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

10.6 Hazardous decomposition products:

Contains substances highly reactive and can auto-polymerize as a result of internal peroxide accumulation. The peroxides formed in these reactions are extremely shock- and heat-sensitive.

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**ŻYWICA POLIESTROWA - POLYESTER RESIN****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

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health .

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 : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

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

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces 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: styrene (2A)
- 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: Suspected of damaging the unborn child.

E- Sensitizing effects:

- Respiratory: 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.
- Skin: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

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: Serious health effects in the case of prolonged inhalation, including death, serious functional disorders or morphological changes of toxicological importance.
- 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:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	>2000 mg/kg	
styrene	LD50 dermal	>2000 mg/kg	
CAS: 100-42-5	LC50 inhalation	11,8 mg/L (4 h)	Rat
EC: 202-851-5			

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
2,2' -oxybisethanol CAS: 111-46-6 EC: 203-872-2	LD50 oral	500 mg/kg	Rat
	LD50 dermal	11890 mg/kg	Rabbit
	LC50 inhalation	>20 mg/L	
phthalic anhydride CAS: 85-44-9 EC: 201-607-5	LD50 oral	1530 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>5 mg/L	
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>5 mg/L	
Ethanediol CAS: 107-21-1 EC: 203-473-3	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>20 mg/L	
maleic anhydride CAS: 108-31-6 EC: 203-571-6	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>5 mg/L	

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product fails to meet the criteria.

Other information

Non-applicable

SECTION 12: ECOLOGICAL INFORMATION

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

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
	LC50	EC50		
styrene CAS: 100-42-5 EC: 202-851-5	LC50	64,7 mg/L (96 h)	Carassius auratus	Fish
	EC50	4,7 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	67 mg/L (192 h)	Microcystis aeruginosa	Algae
2,2' -oxybisethanol CAS: 111-46-6 EC: 203-872-2	LC50	32000 mg/L (96 h)	Gambusia affinis	Fish
	EC50	84000 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		
phthalic anhydride CAS: 85-44-9 EC: 201-607-5	LC50	Non-applicable		
	EC50	Non-applicable		
	EC50	60 mg/L (96 h)	Pseudokirchneriella subcapitata	Algae
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	LC50	>1 - 10 mg/L (96 h)		Fish
	EC50	>1 - 10 mg/L (48 h)		Crustacean
	EC50	>1 - 10 mg/L (72 h)		Algae
Ethanediol CAS: 107-21-1 EC: 203-473-3	LC50	53000 mg/L (96 h)	Pimephales promelas	Fish
	EC50	51000 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	24000 mg/L (168 h)	Selenastrum capricornutum	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
	NOEC	Concentration		
styrene CAS: 100-42-5 EC: 202-851-5	NOEC	Non-applicable		
	NOEC	1,01 mg/L	Daphnia magna	Crustacean
2,2' -oxybisethanol CAS: 111-46-6 EC: 203-872-2	NOEC	Non-applicable		
	NOEC	8590 mg/L	Ceriodaphnia dubia	Crustacean

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Concentration		Species	Genus
	NOEC			
phthalic anhydride CAS: 85-44-9 EC: 201-607-5	NOEC	10 mg/L	Oncorhynchus mykiss	Fish
	NOEC	16 mg/L	Daphnia magna	Crustacean
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	NOEC	Non-applicable		
	NOEC	0,3 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
styrene CAS: 100-42-5 EC: 202-851-5	BOD5	1,96 g O2/g	Concentration	100 mg/L
	COD	2,8 g O2/g	Period	14 days
	BOD5/COD	0,7	% Biodegradable	100 %
2,2' -oxybisethanol CAS: 111-46-6 EC: 203-872-2	BOD5	0,05 g O2/g	Concentration	100 mg/L
	COD	1,51 g O2/g	Period	28 days
	BOD5/COD	0,03	% Biodegradable	90 %
phthalic anhydride CAS: 85-44-9 EC: 201-607-5	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	85,2 %
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	0 %
Ethenediol CAS: 107-21-1 EC: 203-473-3	BOD5	0,47 g O2/g	Concentration	100 mg/L
	COD	1,29 g O2/g	Period	14 days
	BOD5/COD	0,36	% Biodegradable	90 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
styrene CAS: 100-42-5 EC: 202-851-5	BCF	14
	Pow Log	2.95
	Potential	Low
2,2' -oxybisethanol CAS: 111-46-6 EC: 203-872-2	BCF	0
	Pow Log	-1.47
	Potential	Low
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	BCF	4
	Pow Log	2.8
	Potential	Low
Ethenediol CAS: 107-21-1 EC: 203-473-3	BCF	10
	Pow Log	-1.36
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
styrene CAS: 100-42-5 EC: 202-851-5	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	3,21E-2 N/m (25 °C)	Moist soil	Non-applicable
2,2' -oxybisethanol CAS: 111-46-6 EC: 203-872-2	Koc	1	Henry	2,06E-4 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	4,954E-2 N/m (25 °C)	Moist soil	No
phthalic anhydride CAS: 85-44-9 EC: 201-607-5	Koc	36	Henry	Non-applicable
	Conclusion	Very High	Dry soil	Non-applicable
	Surface tension	1,531E-2 N/m (324,43 °C)	Moist soil	Non-applicable

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Absorption/desorption		Volatility	
Ethanediol CAS: 107-21-1 EC: 203-473-3	Koc	0	Henry	1,327E-1 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	4,989E-2 N/m (25 °C)	Moist soil	No
maleic anhydride CAS: 108-31-6 EC: 203-571-6	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	1,673E-2 N/m (250,21 °C)	Moist soil	Non-applicable

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product fails to meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances	Dangerous

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

HP14 Ecotoxic, HP3 Flammable, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP10 Toxic for reproduction, 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-dangerous 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 2021 and RID 2021:



- 14.1 UN number or ID number:** UN1866
14.2 UN proper shipping name: RESIN SOLUTION
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: Non-applicable
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: Non-applicable

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ŻYWICA POLIESTROWA - POLYESTER RESIN**SECTION 14: TRANSPORT INFORMATION (continued)****Transport of dangerous goods by sea:**

With regard to IMDG 40-20:



- 14.1 UN number or ID number:** UN1866
14.2 UN proper shipping name: RESIN SOLUTION
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: 955, 223
EmS Codes: F-E, S-E
Physico-Chemical properties: see section 9
Limited quantities: 5 L
Segregation group: Non-applicable
14.7 Maritime transport in bulk according to IMO instruments: Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2022:



- 14.1 UN number or ID number:** UN1866
14.2 UN proper shipping name: RESIN SOLUTION
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: Non-applicable

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

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

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:

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SECTION 15: REGULATORY INFORMATION (continued)

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

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.:

COMMISSION REGULATION (EU) 2020/878

Substances that contribute to the classification (SECTION 2):

- New declared substances
 - phthalic anhydride (85-44-9)
 - maleic anhydride (108-31-6)
 - reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) (25068-38-6)
 - styrene (100-42-5)

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

- Precautionary statements
- Supplementary information

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation.
H335: May cause respiratory irritation.
H412: Harmful to aquatic life with long lasting effects.
H361d: Suspected of damaging the unborn child.
H372: Causes damage to organs through prolonged or repeated exposure (Inhalation).
H317: May cause an allergic skin reaction.
H226: Flammable liquid and vapour.
H319: Causes serious eye irritation.

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: H332 - Harmful if inhaled.
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.
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.
Repr. 2: H361d - Suspected of damaging the unborn child.
Resp. Sens. 1: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1: H317 - May cause an allergic skin reaction.
Skin Sens. 1A: H317 - May cause an allergic skin reaction.
STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure (Inhalation).
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral).
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.
STOT SE 3: H335 - May cause respiratory irritation.

Classification procedure:

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ŻYWICA POLIESTROWA - POLYESTER RESIN

SECTION 16: OTHER INFORMATION (continued)

Skin Irrit. 2: Calculation method
STOT SE 3: Calculation method
Aquatic Chronic 3: Calculation method
Repr. 2: Calculation method
STOT RE 1: Calculation method
Skin Sens. 1A: Calculation method
Flam. Liq. 3: Calculation method (2.6.4.3)
Eye Irrit. 2: 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

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 -