



**UTWARDZACZ DO LAKIERU BEZBARWNEGO 2:1 MS - HARDENER  
FOR CLEARCOAT 2:1 MS**

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

**1.1 Product identifier:** UTWARDZACZ DO LAKIERU BEZBARWNEGO 2:1 MS - HARDENER FOR CLEARCOAT 2:1 MS

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

Relevant uses: Car refinishing- Hardeners

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  
technolog@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 inhalation toxicity, Category 4, H332

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412

Flam. Liq. 3: Flammable liquids, Category 3, H226

Skin Sens. 1: Sensitisation, skin, Category 1, H317

STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

STOT SE 3: Specific toxicity causing drowsiness and dizziness, single exposure, Category 3, H336

**2.2 Label elements:**

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

**Warning**



**Hazard statements:**

H226 - Flammable liquid and vapour

H317 - May cause an allergic skin reaction

H332 - Harmful if inhaled

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H412 - Harmful to aquatic life with long lasting effects

**Precautionary statements:**

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

P302+P352: IF ON SKIN: Wash with plenty of water

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing

P333+P313: If skin irritation or rash occurs: Get medical advice/attention

**Supplementary information:**

EUH066: Repeated exposure may cause skin dryness or cracking

EUH204: Contains isocyanates. May produce an allergic reaction

**2.3 Other hazards:**

Product fails to meet PBT/vPvB criteria

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substance:**

Non-applicable

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

**3.2 Mixture:**

**Chemical description:** Hardener based on isocyanate resin in organic solvents.

**Components:**

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

Identification	Chemical name/Classification	Concentration
CAS: 28182-81-2 EC: 500-060-2 Index: Non-applicable REACH: Non-applicable	<b>Hexamethylene diisocyanate, oligomers<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Skin Sens. 1: H317 - Warning	<b>30 - &lt;49,99 %</b>
CAS: 123-86-4 EC: 204-658-1 Index: 607-025-00-1 REACH: 01-2119485493-29-XXXX	<b>N-butyl acetate<sup>(1)</sup></b> ATP CLP00 Regulation 1272/2008 Flam. Liq. 3: H226; STOT SE 3: H336; EUH066 - Warning	<b>20 - &lt;29,99 %</b>
CAS: 112-07-2 EC: 203-933-3 Index: 607-038-00-2 REACH: 01-2119475112-47-XXXX	<b>2-butoxyethyl acetate<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Acute Tox. 4: H302+H312 - Warning	<b>10 - &lt;19,99 %</b>
CAS: 64742-95-6 EC: 918-668-5 Index: Non-applicable REACH: 01-2119455851-35-XXXX	<b>Hydrocarbons, C9, aromatics (EC 200-753-7 &lt;0,1%)<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 3: H226; STOT SE 3: H335; STOT SE 3: H336; EUH066 - Danger	<b>5 - &lt;9,99 %</b>
CAS: Non-applicable EC: 905-562-9 Index: Non-applicable REACH: 01-211955267-33-XXXX	<b>Xylene (mixture of isomers)<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Acute Tox. 4: H312+H332; 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	<b>3 - &lt;4,99 %</b>
CAS: 108-65-6 EC: 203-603-9 Index: 607-195-00-7 REACH: 01-2119475791-29-XXXX	<b>2-methoxy-1-methylethyl acetate<sup>(1)</sup></b> ATP ATP01 Regulation 1272/2008 Flam. Liq. 3: H226 - Warning	<b>1 - &lt;2,99 %</b>
CAS: 64742-95-6 EC: 265-199-0 Index: 649-356-00-4 REACH: 01-2119486773-24-XXXX	<b>Solvent naphtha (petroleum), light arom., &lt; 0.1 % EC 200-753-7<sup>(1)</sup></b> ATP ATP01 Regulation 1272/2008 Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H336; EUH066 - Danger	<b>1 - &lt;2,99 %</b>

<sup>(1)</sup> Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2015/830

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

**Other information:**

Identification	Specific concentration limit
Xylene (mixture of isomers) CAS: Non-applicable EC: 905-562-9	% (w/w) >=10: STOT RE 2 - H373

**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:**

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**SECTION 4: FIRST AID MEASURES (continued)**

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:**

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO<sub>2</sub>). 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:**

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. Destroy 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.

**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.- Precautions for safe manipulation

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**SECTION 7: HANDLING AND STORAGE (continued)**

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 94/9/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 to prevent ergonomic and toxicological risks**

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.: 5 °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

Identification	Environmental limits		
	IOELV (8h)	20 ppm	133 mg/m <sup>3</sup>
2-butoxyethyl acetate CAS: 112-07-2 EC: 203-933-3	IOELV (STEL)	50 ppm	333 mg/m <sup>3</sup>
	IOELV (8h)	50 ppm	275 mg/m <sup>3</sup>
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	IOELV (STEL)	100 ppm	550 mg/m <sup>3</sup>
	IOELV (8h)	100 ppm	550 mg/m <sup>3</sup>

**DNEL (Workers):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
N-butyl acetate CAS: 123-86-4 EC: 204-658-1	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	960 mg/m <sup>3</sup>	960 mg/m <sup>3</sup>	480 mg/m <sup>3</sup>	480 mg/m <sup>3</sup>
2-butoxyethyl acetate CAS: 112-07-2 EC: 203-933-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	102 mg/kg	Non-applicable	102 mg/kg	Non-applicable
	Inhalation	775 mg/m <sup>3</sup>	333 mg/m <sup>3</sup>	133 mg/m <sup>3</sup>	Non-applicable
Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%) CAS: 64742-95-6 EC: 918-668-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	25 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	150 mg/m <sup>3</sup>	Non-applicable
Xylene (mixture of isomers) CAS: Non-applicable EC: 905-562-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	180 mg/kg	Non-applicable
	Inhalation	289 mg/m <sup>3</sup>	289 mg/m <sup>3</sup>	77 mg/m <sup>3</sup>	Non-applicable

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

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	153,5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	275 mg/m <sup>3</sup>	Non-applicable

**DNEL (General population):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
N-butyl acetate CAS: 123-86-4 EC: 204-658-1	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	859,7 mg/m <sup>3</sup>	859,7 mg/m <sup>3</sup>	102,34 mg/m <sup>3</sup>	102,34 mg/m <sup>3</sup>
2-butoxyethyl acetate CAS: 112-07-2 EC: 203-933-3	Oral	18 mg/kg	Non-applicable	4,3 mg/kg	Non-applicable
	Dermal	27 mg/kg	Non-applicable	36 mg/kg	Non-applicable
	Inhalation	499 mg/m <sup>3</sup>	166 mg/m <sup>3</sup>	67 mg/m <sup>3</sup>	Non-applicable
Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%) CAS: 64742-95-6 EC: 918-668-5	Oral	Non-applicable	Non-applicable	11 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	11 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	32 mg/m <sup>3</sup>	Non-applicable
Xylene (mixture of isomers) CAS: Non-applicable EC: 905-562-9	Oral	Non-applicable	Non-applicable	1,6 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	108 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	14,8 mg/m <sup>3</sup>	Non-applicable
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	Oral	Non-applicable	Non-applicable	1,67 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	54,8 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	33 mg/m <sup>3</sup>	Non-applicable

**PNEC:**

Identification				
N-butyl acetate CAS: 123-86-4 EC: 204-658-1	STP	35,6 mg/L	Fresh water	0,18 mg/L
	Soil	0,0903 mg/kg	Marine water	0,018 mg/L
	Intermittent	0,36 mg/L	Sediment (Fresh water)	0,981 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,0981 mg/kg
2-butoxyethyl acetate CAS: 112-07-2 EC: 203-933-3	STP	90 mg/L	Fresh water	0,304 mg/L
	Soil	0,68 mg/kg	Marine water	0,0304 mg/L
	Intermittent	0,56 mg/L	Sediment (Fresh water)	2,03 mg/kg
	Oral	60 g/kg	Sediment (Marine water)	0,203 mg/kg
Xylene (mixture of isomers) CAS: Non-applicable 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	Non-applicable	Sediment (Marine water)	12,46 mg/kg
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	STP	100 mg/L	Fresh water	0,635 mg/L
	Soil	0,29 mg/kg	Marine water	0,0635 mg/L
	Intermittent	6,35 mg/L	Sediment (Fresh water)	3,29 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,329 mg/kg

**8.2 Exposure controls:**

**A.- General security and hygiene measures in the work place**

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more 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**

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



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours		EN 405:2001+A1:2009	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	NON-disposable chemical protective gloves		EN ISO 374-1:2016 EN 16523-1:2015 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

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



D.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield		EN 166:2001 EN 167:2001 EN 168:2001 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 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	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 13287:2012 EN ISO 20345:2011 EN 13832-1:2019	Replace boots at any sign of deterioration.

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

\*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)**

Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Non-applicable *
<b>Volatility:</b>	
Boiling point at atmospheric pressure:	126 °C
Vapour pressure at 20 °C:	0E+0 Pa
Vapour pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *
<b>Product description:</b>	
Density at 20 °C:	980 kg/m <sup>3</sup>
Relative density at 20 °C:	0,98
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	>21 cSt
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Insoluble
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
<b>Flammability:</b>	
Flash Point:	39 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	280 °C
Lower flammability limit:	0,8 % Volume
Upper flammability limit:	8,4 % Volume
<b>Explosive:</b>	
Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *

**9.2 Other information:**

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

\*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 conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

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**SECTION 10: STABILITY AND REACTIVITY (continued)**

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:**

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 toxicological effects:**

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

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: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.

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 dangerous for the effects mentioned. For more information see section 3.  
IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous 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 dangerous 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 dangerous with sensitising effects. For more information see section 3.
- Cutaneous: 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:

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

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met. However, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.

- Skin: Repeated exposure may cause skin dryness or cracking

H- Aspiration hazard:

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

**Other information:**

Non-applicable

**Specific toxicology information on the substances:**

Identification	Acute toxicity		Genus
Hexamethylene diisocyanate, oligomers CAS: 28182-81-2 EC: 500-060-2	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	Non-applicable	
N-butyl acetate CAS: 123-86-4 EC: 204-658-1	LD50 oral	12789 mg/kg	Rat
	LD50 dermal	14112 mg/kg	Rabbit
	LC50 inhalation	23,4 mg/L (4 h)	Rat
2-butoxyethyl acetate CAS: 112-07-2 EC: 203-933-3	LD50 oral	1880 mg/kg	Rat
	LD50 dermal	1500 mg/kg	Rabbit
	LC50 inhalation	>20 mg/L (4 h)	
Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%) CAS: 64742-95-6 EC: 918-668-5	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>20 mg/L (4 h)	
Xylene (mixture of isomers) CAS: Non-applicable EC: 905-562-9	LD50 oral	5627 mg/kg	Mouse
	LD50 dermal	1100 mg/kg (ATEi)	Rat
	LC50 inhalation	11 mg/L (4 h) (ATEi)	
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	LD50 oral	8532 mg/kg	Rat
	LD50 dermal	5100 mg/kg	Rat
	LC50 inhalation	30 mg/L (4 h)	Rat
Solvent naphtha (petroleum), light arom., < 0.1 % EC 200-753-7 CAS: 64742-95-6 EC: 265-199-0	LD50 oral	2100 mg/kg	Rat
	LD50 dermal	2000 mg/kg	Rabbit
	LC50 inhalation	>20 mg/L (4 h)	

**SECTION 12: ECOLOGICAL INFORMATION**

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

**12.1 Toxicity:**

Identification	Acute toxicity		Species	Genus
N-butyl acetate CAS: 123-86-4 EC: 204-658-1	LC50	62 mg/L (96 h)	Leuciscus idus	Fish
	EC50	73 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	675 mg/L (72 h)	Scenedesmus subspicatus	Algae
2-butoxyethyl acetate CAS: 112-07-2 EC: 203-933-3	LC50	80 mg/L (48 h)	Leuciscus idus	Fish
	EC50	37 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	500 mg/L (72 h)	Scenedesmus subspicatus	Algae
Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%) CAS: 64742-95-6 EC: 918-668-5	LC50	1 - 10 mg/L (96 h)		Fish
	EC50	1 - 10 mg/L		Crustacean
	EC50	1 - 10 mg/L		Algae
Xylene (mixture of isomers) CAS: Non-applicable EC: 905-562-9	LC50	13.5 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50	0.6 mg/L (96 h)	Gammarus lacustris	Crustacean
	EC50	10 mg/L (72 h)	Skeletonema costatum	Algae

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**UTWARDZACZ DO LAKIERU BEZBARWNEGO 2:1 MS - HARDENER  
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**SECTION 12: ECOLOGICAL INFORMATION (continued)**

Identification	Acute toxicity		Species	Genus
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	LC50	161 mg/L (96 h)	Pimephales promelas	Fish
	EC50	481 mg/L (48 h)	Daphnia sp.	Crustacean
	EC50	Non-applicable		
Solvent naphtha (petroleum), light arom., < 0.1 % EC 200-753-7 CAS: 64742-95-6 EC: 265-199-0	LC50	1 - 10 mg/L (96 h)		Fish
	EC50	1 - 10 mg/L		Crustacean
	EC50	1 - 10 mg/L		Algae

**12.2 Persistence and degradability:**

Identification	Degradability		Biodegradability	
N-butyl acetate CAS: 123-86-4 EC: 204-658-1	BOD5	Non-applicable	Concentration	Non-applicable
	COD	Non-applicable	Period	5 days
	BOD5/COD	0.79	% Biodegradable	84 %
2-butoxyethyl acetate CAS: 112-07-2 EC: 203-933-3	BOD5	Non-applicable	Concentration	30 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	0.51	% Biodegradable	77,3 %
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	BOD5	Non-applicable	Concentration	785 mg/L
	COD	Non-applicable	Period	8 days
	BOD5/COD	Non-applicable	% Biodegradable	100 %
Solvent naphtha (petroleum), light arom., < 0.1 % EC 200-753-7 CAS: 64742-95-6 EC: 265-199-0	BOD5	0.19 g O2/g	Concentration	Non-applicable
	COD	0.44 g O2/g	Period	Non-applicable
	BOD5/COD	0.43	% Biodegradable	Non-applicable

**12.3 Bioaccumulative potential:**

Identification	Bioaccumulation potential	
N-butyl acetate CAS: 123-86-4 EC: 204-658-1	BCF	4
	Pow Log	1.78
	Potential	Low
2-butoxyethyl acetate CAS: 112-07-2 EC: 203-933-3	BCF	3
	Pow Log	1.51
	Potential	Low
Xylene (mixture of isomers) CAS: Non-applicable EC: 905-562-9	BCF	9
	Pow Log	2.77
	Potential	Low
2-methoxy-1-methylethyl acetate CAS: 108-65-6 EC: 203-603-9	BCF	1
	Pow Log	0.43
	Potential	Low
Solvent naphtha (petroleum), light arom., < 0.1 % EC 200-753-7 CAS: 64742-95-6 EC: 265-199-0	BCF	
	Pow Log	4
	Potential	

**12.4 Mobility in soil:**

Identification	Absorption/desorption		Volatility	
N-butyl acetate CAS: 123-86-4 EC: 204-658-1	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	2,478E-2 N/m (25 °C)	Moist soil	Non-applicable
2-butoxyethyl acetate CAS: 112-07-2 EC: 203-933-3	Koc	Non-applicable	Henry	5,532E-1 Pa·m <sup>3</sup> /mol
	Conclusion	Non-applicable	Dry soil	No
	Surface tension	Non-applicable	Moist soil	Yes

**12.5 Results of PBT and vPvB assessment:**

Product fails to meet PBT/vPvB criteria

**12.6 Other adverse effects:**

Not described

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**UTWARDZACZ DO LAKIERU BEZBARWNEGO 2:1 MS - HARDENER  
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**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	Dangerous

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

HP3 Flammable, HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP13 Sensitising

**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. We do not recommend disposal down the drain. 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 2019 and RID 2019:



- 14.1 UN number:** UN1263  
**14.2 UN proper shipping name:** PAINT RELATED MATERIAL  
**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 Transport in bulk according to Annex II of Marpol and the IBC Code:** Non-applicable

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:



- 14.1 UN number:** UN1263  
**14.2 UN proper shipping name:** PAINT RELATED MATERIAL  
**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, 223, 955, 367  
EmS Codes: F-E, S-E  
Physico-Chemical properties: see section 9  
Limited quantities: 5 L  
Segregation group: Non-applicable  
**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Non-applicable

**Transport of dangerous goods by air:**

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**UTWARDZACZ DO LAKIERU BEZBARWNEGO 2:1 MS - HARDENER  
FOR CLEARCOAT 2:1 MS**

**SECTION 14: TRANSPORT INFORMATION (continued)**

With regard to IATA/ICAO 2019:



- 14.1 UN number:** UN1263  
**14.2 UN proper shipping name:** PAINT RELATED MATERIAL  
**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 Transport in bulk according to Annex II of Marpol and the IBC Code:** 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		5000	50000

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

Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:

- metallic glitter intended mainly for decoration,
- artificial snow and frost,
- "whoopee" cushions,
- silly string aerosols,
- imitation excrement,
- horns for parties,
- decorative flakes and foams,
- artificial cobwebs,
- stink bombs.

Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:

'For professional users only'.

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

**15.2 Chemical safety assessment:**

The supplier has not carried out evaluation of chemical safety.

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**SECTION 16: OTHER INFORMATION**

**Legislation related to safety data sheets:**

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 (Regulation (EC) No 2015/830)

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

Non-applicable

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

H226: Flammable liquid and vapour  
H332: Harmful if inhaled  
H317: May cause an allergic skin reaction  
H335: May cause respiratory irritation  
H336: May cause drowsiness or dizziness  
H412: Harmful to aquatic life with long lasting effects

**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+H312 - Harmful if swallowed or in contact with skin  
Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled  
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects  
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways  
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  
STOT SE 3: H335 - May cause respiratory irritation  
STOT SE 3: H336 - May cause drowsiness or dizziness

**Classification procedure:**

Flam. Liq. 3: Calculation method (2.6.4.3)  
Acute Tox. 4: Calculation method  
Skin Sens. 1: Calculation method  
STOT SE 3: Calculation method  
STOT SE 3: Calculation method  
Aquatic Chronic 3: Calculation method

**Advice related to training:**

Minimal 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: 5-day biochemical oxygen demand  
BCF: Bioconcentration factor  
LD50: Lethal Dose 50  
LC50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol-water partition coefficient  
Koc: Partition coefficient of organic carbon

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 -