

According to 1907/2006/EC (REACH), 2015/830/EU

UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

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

1.1 Product identifier: UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

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

Relevant uses: Industrial use as a polymerization initiator for the production of polymers as well as a crosslinking agent for the production of resins.

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.

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard, Category 1, H410

Eye Irrit. 2: Eye irritation, Category 2, H319

Org. Perox. D: Organic peroxides, Category D, H242 Skin Sens. 1: Sensitisation, skin, Category 1, H317

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Danger







Hazard statements:

H242 - Heating may cause a fire

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements:

P101: If medical advice is needed, have product container or label at hand

P102: Keep out of reach of children

P280: Wear protective gloves/protective clothing/eye protection/face protection

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

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P403+P235: Store in a well-ventilated place. Keep cool

P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Supplementary information:

Contains Dibenzoyl peroxide

2.3 Other hazards:

Product fails to meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

Safety data sheet According to 1907/2006/EC (REACH), 2015/830/EU



UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixture:

Chemical description: A blend of the listed ingredients with safe admixtures.

Components:

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

	Identification		Chemical name/Classification	Concentration
CAS:	94-36-0	Dibenzoyl peroxide (Self-classified	
EC: Index: REACH:	202-327-6 617-008-00-0 01-2119511472-50- XXXX	Regulation 1272/2008	Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Irrit. 2: H319; Org. Perox. B: H241; Skin Sens. 1: H317 - Danger	45 - <52 %
CAS:			Not classified	
EC: 205-011-6 Index: Non-applicable REACH: 01-2119437229-36- XXXX		Regulation 1272/2008		25 - <35 %
CAS:	107-21-1	Ethanediol ⁽¹⁾	Self-classified	
EC: Index: REACH:	203-473-3 603-027-00-1 01-2119456816-28- XXXX	Regulation 1272/2008	Acute Tox. 4: H302; STOT RE 2: H373 - Warning	0,1 - <9,9 %

 $^{^{(1)}}$ 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:

		M-factor		
Dibenzoyl peroxide			Acute	10
CAS: 94-36-0	EC: 202-327-6		Chronic	10

Identification	Specific concentration limit
IUAN: 94-30-0	% (w/w) >=52: Org. Perox. B - H241 35<= % (w/w) <52: Org. Perox. D - H242

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:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

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:

- CONTINUED ON NEXT PAGE -



According to 1907/2006/EC (REACH), 2015/830/EU

UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

SECTION 4: FIRST AID MEASURES (continued

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 (CO₂). 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. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

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

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

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on 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.

Safety data sheet According to 1907/2006/EC (REACH), 2015/830/EU



UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

SECTION 7: HANDLING AND STORAGE (continued)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 25 °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.

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		
Ethanediol	IOELV (8h)	20 ppm	52 mg/m ³
CAS: 107-21-1 EC: 203-473-3	IOELV (STEL)	40 ppm	104 mg/m ³

DNEL (Workers):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
Dibenzoyl peroxide	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 94-36-0	Dermal	Non-applicable	Non-applicable	6,6 mg/kg	Non-applicable
EC: 202-327-6	Inhalation	Non-applicable	Non-applicable	11,75 mg/m ³	Non-applicable
Dimethyl Phthalate	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 131-11-3	Dermal	Non-applicable	Non-applicable	100 mg/kg	Non-applicable
EC: 205-011-6	Inhalation	Non-applicable	Non-applicable	293,86 mg/m ³	Non-applicable
Ethanediol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 107-21-1	Dermal	Non-applicable	Non-applicable	106 mg/kg	Non-applicable
EC: 203-473-3	Inhalation	Non-applicable	Non-applicable	Non-applicable	35 mg/m ³

DNEL (General population):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
Dibenzoyl peroxide	Oral	Non-applicable	Non-applicable	1,65 mg/kg	Non-applicable
CAS: 94-36-0	Dermal	Non-applicable	Non-applicable	3,3 mg/kg	Non-applicable
EC: 202-327-6	Inhalation	Non-applicable	Non-applicable	2,9 mg/m ³	Non-applicable
Dimethyl Phthalate	Oral	Non-applicable	Non-applicable	25 mg/kg	Non-applicable
CAS: 131-11-3	Dermal	Non-applicable	Non-applicable	60 mg/kg	Non-applicable
EC: 205-011-6	Inhalation	Non-applicable	Non-applicable	86,96 mg/m ³	Non-applicable
Ethanediol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 107-21-1	Dermal	Non-applicable	Non-applicable	53 mg/kg	Non-applicable
EC: 203-473-3	Inhalation	Non-applicable	Non-applicable	Non-applicable	7 mg/m³

PNEC:

Identification				
Dibenzoyl peroxide	STP	0,35 mg/L	Fresh water	0,000602 mg/L
CAS: 94-36-0	Soil	0,0758 mg/kg	Marine water	0,0000602 mg/L
EC: 202-327-6	Intermittent	0,000602 mg/L	Sediment (Fresh water)	0,338 mg/kg
	Oral	6,67 g/kg	Sediment (Marine water)	Non-applicable



According to 1907/2006/EC (REACH), 2015/830/EU

UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
Dimethyl Phthalate	STP	4 mg/L	Fresh water	0,192 mg/L
CAS: 131-11-3	Soil	3,16 mg/kg	Marine water	0,0192 mg/L
EC: 205-011-6	Intermittent	0,39 mg/L	Sediment (Fresh water)	1,403 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable

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

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory respiratory tract protection	Filter mask for gases and vapours	CAT III	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	Protective gloves against minor risks	CATI		Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2003+A1:2009 and EN ISO 374-1:2016

[&]quot;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	Panoramic glasses against splash/projections.	CATII	EN 166:2001 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	Antistatic and fireproof protective clothing	CAT III	EN 1149-1:2006 EN 1149-2:1997 EN 1149-3:2004 EN 168:2001 EN ISO 14116:2015 EN 1149-5:2018	Limited protection against flames.
Mandatory foot protection	Safety footwear with antistatic and heat resistant properties	CAT III	EN ISO 13287:2012 EN ISO 20345:2011	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
-3	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	⊣ (♦	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011
Emergency shower		Eyewash stations	

ROLL

Safety data sheet According to 1907/2006/EC (REACH), 2015/830/EU

UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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: Paste

Colour: Characteristic
Odour: Characteristic
Odour threshold: Non-applicable *

Volatility:

Boiling point at atmospheric pressure:

Vapour pressure at 20 °C:

Vapour pressure at 50 °C:

Non-applicable *

Non-applicable *

Non-applicable *

Non-applicable *

Product description:

Density at 20 °C: 1150 - 1250 kg/m³

Relative density at 20 °C: 1,15 - 1,25

Dynamic viscosity at 20 °C: Non-applicable *

Kinematic viscosity at 20 °C: Non-applicable *

Kinematic viscosity at 40 °C: >20,5 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: H242 Heating may cause a fire

Flammability:

Flash Point: Non Flammable (>60 °C)

Flammability (solid, gas):

Autoignition temperature:

Lower flammability limit:

Upper flammability limit:

Non-applicable *

Non-applicable *

Non-applicable *

Explosive:

Lower explosive limit:

Upper explosive limit:

Non-applicable *

Non-applicable *

9.2 Other information:

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

- CONTINUED ON NEXT PAGE -

Date of compilation: 17/11/2016 Revised: 19/02/2019 Version: 2 (Replaced 1) **Page 6/12**

Safety data sheet According to 1907/2006/EC (REACH), 2015/830/EU



UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Surface tension at 20 °C:

Non-applicable *

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:

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	Precaution	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid direct impact	Not applicable	Avoid direct impact	Avoid direct impact	Avoid alkalines, heavy metals, reducing agents, peroxide accelerating agents

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 (CO2), 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

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 \cdot

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, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- B- Inhalation (acute effect):
 - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
 - Corrosivity/Irritability: 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.
- C- Contact with the skin and the eyes (acute effect):
 - Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for skin contact. For more information see section 3.
 - Contact with the eyes: Produces eye damage after contact.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- CONTINUED ON NEXT PAGE -



According to 1907/2006/EC (REACH), 2015/830/EU

UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- 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: Dibenzoyl peroxide (3)
- 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:

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.

- G- Specific target organ toxicity (STOT)-repeated exposure:
 - Specific target organ toxicity (STOT)-repeated exposure: 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.
 - Skin: 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.
- H- Aspiration hazard:

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.

Other information:

Non-applicable

Specific toxicology information on the substances:

	Identification	Acute toxicity		Genus
Dibenzoyl peroxide		LD50 oral	7710 mg/kg	Rat
CAS: 94-36-0		LD50 dermal	>2000 mg/kg	
EC: 202-327-6		LC50 inhalation	>5 mg/L (4 h)	
Dimethyl Phthalate		LD50 oral	>2000 mg/kg	
CAS: 131-11-3		LD50 dermal	>2000 mg/kg	
EC: 205-011-6		LC50 inhalation	>20 mg/L (4 h)	
Ethanediol		LD50 oral	500 mg/kg (ATEi)	
CAS: 107-21-1		LD50 dermal	>2000 mg/kg	
EC: 203-473-3		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
Dibenzoyl peroxide	LC50	0.0602 mg/L (96 h)	Oncorhynchus mykiss	Fish
CAS: 94-36-0	EC50	0.11 mg/L (48 h)	Daphnia magna	Crustacean
EC: 202-327-6	EC50	0.071 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae
Dimethyl Phthalate	LC50	39 mg/L (96 h)	Pimephales promelas	Fish
CAS: 131-11-3	EC50	150 mg/L (24 h)	Daphnia magna	Crustacean
EC: 205-011-6	EC50	204 mg/L (72 h)	Scenedesmus subspicatus	Algae
Ethanediol	LC50	53000 mg/L (96 h)	Pimephales promelas	Fish
CAS: 107-21-1	EC50	51000 mg/L (48 h)	Daphnia magna	Crustacean
EC: 203-473-3	EC50	24000 mg/L (168 h)	Selenastrum capricornutum	Algae

12.2 Persistence and degradability:



According to 1907/2006/EC (REACH), 2015/830/EU

UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Deg	radability	Biodegradability	
Dibenzoyl peroxide	BOD5	Non-applicable	Concentration	Non-applicable
CAS: 94-36-0	COD	Non-applicable	Period	10 days
EC: 202-327-6	BOD5/COD	Non-applicable	% Biodegradable	68 %
Dimethyl Phthalate	BOD5	1.12 g O2/g	Concentration	100 mg/L
CAS: 131-11-3	COD	0.74 g O2/g	Period	28 days
EC: 205-011-6	BOD5/COD	1.52	% Biodegradable	93 %
Ethanediol	BOD5	0.47 g O2/g	Concentration	100 mg/L
CAS: 107-21-1	COD	1.29 g O2/g	Period	14 days
EC: 203-473-3	BOD5/COD	0.36	% Biodegradable	90 %

12.3 Bioaccumulative potential:

Identification Bioaccumulation potential		
Dimethyl Phthalate	BCF	57
CAS: 131-11-3	Pow Log	1.6
EC: 205-011-6	Potential Moderate	
Ethanediol	BCF	10
CAS: 107-21-1	Pow Log	-1.36
EC: 203-473-3	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Dibenzoyl peroxide	Koc	6309.57	Henry	Non-applicable
CAS: 94-36-0	Conclusion	Immobile	Dry soil	Non-applicable
EC: 202-327-6	Surface tension	Non-applicable	Moist soil	Non-applicable
Dimethyl Phthalate	Koc	Non-applicable	Henry	Non-applicable
CAS: 131-11-3	Conclusion	Non-applicable	Dry soil	Non-applicable
EC: 205-011-6	Surface tension	4,044E-2 N/m (25 °C)	Moist soil	Non-applicable
Ethanediol	Koc	0	Henry	1,327E-1 Pa·m³/mol
CAS: 107-21-1	Conclusion	Very High	Dry soil	No
EC: 203-473-3	Surface tension	4,989E-2 N/m (25 °C)	Moist soil	No

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
16 09 04*	oxidising substances, not otherwise specified	Dangerous

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

HP14 Ecotoxic, HP3 Flammable, HP13 Sensitising, 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. We do not recommended 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

- CONTINUED ON NEXT PAGE -

Date of compilation: 17/11/2016 Revised: 19/02/2019 Version: 2 (Replaced 1) Page 9/12



According to 1907/2006/EC (REACH), 2015/830/EU

UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2019 and RID 2019:



14.1 UN number: UN3108

14.2 UN proper shipping name: ORGANIC PEROXIDE TYPE E, SOLID (Dibenzoyl peroxide)

14.3 Transport hazard class(es): 5.2
Labels: 5.2

14.4 Packing group: N/A
14.5 Environmental hazards: Yes

14.6 Special precautions for user

Special regulations: 122, 274
Tunnel restriction code: D

Physico-Chemical properties: see section 9 Limited quantities: 500 g

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

according Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

14.1 UN number: UN3108

14.2 UN proper shipping name: ORGANIC PEROXIDE TYPE E, SOLID (Dibenzoyl peroxide)

14.3 Transport hazard class(es): 5.2
Labels: 5.2

14.4Packing group:N/A14.5Environmental hazards:Yes

14.6 Special precautions for user

Special regulations: 122, 274

EmS Codes: F-J, S-R

Physico-Chemical properties: see section 9

Limited quantities: 500 g

Segregation group: Non-applicable

Segregation group: Non-applicable

14.7 Transport in bulk according to Annex II of Marpol and

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:



14.1 UN number: UN3108

14.2 UN proper shipping name: ORGANIC PEROXIDE TYPE E, SOLID (Dibenzoyl peroxide)

14.3 Transport hazard class(es): 5.2 Labels: 5.2
 14.4 Packing group: N/A
 14.5 Environmental hazards: Yes

14.6 Special precautions for user

Physico-Chemical properties: see section 9 **14.7 Transport in bulk according** Non-applicable

to Annex II of Marpol and the IBC Code:

the IBC Code:

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

- CONTINUED ON NEXT PAGE -

Date of compilation: 17/11/2016 Revised: 19/02/2019 Version: 2 (Replaced 1) Page 10/12



According to 1907/2006/EC (REACH), 2015/830/EU

UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

SECTION 15: REGULATORY INFORMATION (continued)

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
P6b		50	200
E1		100	200

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

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:

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:

H319: Causes serious eye irritation

H317: May cause an allergic skin reaction

H410: Very toxic to aquatic life with long lasting effects

H242: Heating may cause a fire

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

Aquatic Acute 1: H400 - Very toxic to aquatic life

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects

Eye Irrit. 2: H319 - Causes serious eye irritation

Org. Perox. B: H241 - Heating may cause a fire or explosion 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)

Classification procedure:

Eye Irrit. 2: Calculation method Skin Sens. 1: Calculation method Aquatic Chronic 1: 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:

ROLL

Safety data sheet According to 1907/2006/EC (REACH), 2015/830/EU

UTWARDZACZ - HARDENER FOR POLYESTER PUTTY

SECTION 16: OTHER INFORMATION (continued)

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 -

Date of compilation: 17/11/2016 Revised: 19/02/2019 Version: 2 (Replaced 1) Page 12/12