according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# Carsystem POLYESTER REPARATURHARZ

Version		Revision Date:	Date of last issue: 13.09.2023
1.2	DE / EN	28.02.2024	Date of first issue: 14.06.2022

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

1.1	Product identifier		
	Trade name	:	Carsystem POLYESTER REPARATURHARZ
	Product code	:	126.050
1.2	Relevant identified uses of th	ne s	substance or mixture and uses advised against
	Use of the Sub- stance/Mixture	:	Resins
	Recommended restrictions on use	:	Reserved for industrial and professional use.
1.3	Details of the supplier of the	e sa	ifety data sheet
	Company	:	JASA AG Müslistrasse 43 8957 Spreitenbach Schweiz
			info@jasa-ag.ch, www.jasa-ag.ch
	Telephone Telefax		+41 (0)44 431 60 70 +41 (0)44 432 63 17
	Responsible Department	: F	Productmanagement, Tel: +41 (0)44 431 60 70, sds@jasa-ag.ch

#### 1.4 Emergency telephone

Telephone	: Tox Info Suisse (STIZ), Tel: 14
relephone	

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#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapor.
Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Reproductive toxicity, Category 2	H361d: Suspected of damaging the unborn child.
Specific target organ toxicity - single ex- posure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ toxicity - repeated exposure, Category 1	H372: Causes damage to organs through pro- longed or repeated exposure.
Long-term (chronic) aquatic hazard, Cat- egory 3	H412: Harmful to aquatic life with long lasting ef- fects.

#### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

:

Hazard	pictograms
i iuzui u	piologiamo

Signal Word :	Danger	
Hazard Statements :	H226 H315 H319 H335 H361d H372 H412	Flammable liquid and vapor. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Suspected of damaging the unborn child. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.
Precautionary Statements :	Preventior	1:
	P201 P210	Obtain special instructions before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P260 P271 P280	Do not breathe mist or vapors. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection.

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		te p P308 + P313	+ P338 IF IN EYES: Rinse cautiously with wa- er for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/ ttention.
		Storage: P405 S	Store locked up.
		fa	Dispose of contents/ container to an approved acility in accordance with local, regional, national and international regulations.

#### Hazardous ingredients which must be listed on the label:

styrene

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

Chemical nature : Mixture

Resin

#### Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		· · · ·
	Registration number		
styrene	100-42-5	Flam. Liq. 3; H226	>= 30 - < 50
	202-851-5	Acute Tox. 4; H332	
	601-026-00-0	Skin Irrit. 2; H315	
	01-2119457861-32	Eye Irrit. 2; H319	
		Repr. 2; H361d	
		STOT SE 3; H335	
		(Respiratory system)	

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		STOT RE 1; H372 (hearing organs) Asp. Tox. 1; H304 Aquatic Chronic 3; H412 Acute toxicity esti- mate Acute inhalation tox-
1,4-naphthoquinone	130-15-4 204-977-6 01-2120760462	icity (vapor): 11,8 mg/l Acute Tox. 3; H301 Acute Tox. 1; H330 2-57 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410
		M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1
		Acute toxicity esti- mate Acute oral toxicity: 124 mg/kg Acute inhalation tox- icity (dust/mist): 0,046 mg/l

For explanation of abbreviations see section 16.

#### **SECTION 4: First aid measures**

#### 4.1 Description of first-aid measures

General advice	<ul> <li>In the case of accident or if you feel unwell, seek medical advice immediately.</li> <li>Move out of dangerous area.</li> <li>Take off contaminated clothing and shoes immediately.</li> <li>Do not leave the victim unattended.</li> <li>Symptoms of poisoning may appear several hours later.</li> <li>Show this material safety data sheet to the doctor in attend-</li> </ul>
	ance.

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Protection of first-aiders		ponders should pay attention to self-protection recommended protective clothing	
If inhaled	Keep patien If breathing tion.	Move to fresh air. Keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respira- tion. Call a physician immediately.	
In case of skin contact	removing all	mediately with soap and plenty of water while contaminated clothes and shoes. cian if irritation develops or persists.	
In case of eye contact	for at least 1 Keep eye wi	de open while rinsing. , remove contact lens, if worn.	
If swallowed		n with water. uce vomiting. cian immediately.	
.2 Most important symptoms a	nd effects, both	acute and delaved	
Risks	: Causes skin Causes seri May cause r Suspected c	-	
3 Indication of any immediate	medical attentio	n and special treatment needed	
Treatment	: Treat sympton	-	
ECTION 5: Firefighting mea	sures		
<b>.1 Extinguishing media</b> Suitable extinguishing media	: Carbon diox	ide (CO2)	
	Dry powder Water spray Alcohol-resis	jet	
Unsuitable extinguishing media	: High volume	High volume water jet	
.2 Special hazards arising from	the substance (	or mixture	
Specific hazards during fire		langerous/toxic fumes possible in cases of	

Specific hazards during fire	:	Build-up of dangerous/toxic fumes possible in cases of
fighting		fire/high temperature.

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	Hazardous combustion prod- ucts	:	bustion	nposition products due to incomplete com- e, carbon dioxide and unburned hydrocar-
5.3	Advice for firefighters			
	Special protective equipment for fire-fighters	:		e, wear self-contained breathing apparatus. tective equipment.
	Further information	:	Collect contamina must not be disch Fire residues and	o cool unopened containers. ated fire extinguishing water separately. This arged into drains. contaminated fire extinguishing water must accordance with local regulations.

#### **SECTION 6: Accidental release measures**

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

Personal precautions	<ul> <li>Wear personal protective equipment. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Do not smoke. Avoid contact with skin, eyes and clothing. Sweep up to prevent slipping hazard. In the case of vapor formation use a respirator with an approved filter.</li> </ul>
----------------------	--

#### 6.2 Environmental precautions

Environmental precautions	:	Do not flush into surface water or sanitary sewer system.
		Local authorities should be advised if significant spillages
		cannot be contained.

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

Keep in suitable, closed containers for disposal. Do not flush with water.	Methods for cleaning up	
---	-------------------------	--

#### 6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

:

#### **SECTION 7: Handling and storage**

#### 7.1 Precautions for safe handling

Advice on safe handling

Keep container closed when not in use. Provide sufficient air exchange and/or exhaust in work rooms. according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

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			Wear personal pr	otective equipment.
	Advice on protection against fire and explosion	:	open flames, hot smoke. Take mea	explosive mixtures with air. Keep away from surfaces and sources of ignition. Do not asures to prevent the build up of electrostatic osion-proof equipment.
7.2	Conditions for safe storage,	inc	luding any incom	patibilities
	Requirements for storage areas and containers	:	Store in original of dry, cool and well	ontainer. Keep containers tightly closed in a -ventilated place.
	Further information on stor- age conditions	:		heat and sources of ignition. Protect from way from direct sunlight. Do not store at ove 30 °C / 86 °F.
	Advice on common storage	:	Incompatible with Keep away from t	oxidizing agents. food and drink.
	Storage class (TRGS 510)	:	3	
7.3	Specific end use(s)			
	Specific use(s)	:	No data available	

## **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis		
styrene	100-42-5	AGW	20 ppm 86 mg/m3	DE TRGS 900		
	Peak-limit cat	Peak-limit category: 2;(II)				
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child					
	MAK 20 ppm DE DI 86 mg/m3					
	Further information: Substances that cause cancer in humans or animals or that are considered to be carcinogenic for humans and for which a MAK value can be derived, Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed					

#### **Biological occupational exposure limits**

Substance name	CAS-No.	Control parameters	Sampling time	Basis
styrene	100-42-5	mandelic acid + phenylglyoxylic acid: 600 mg/g creatinine (Urine)	In case of long- term exposure: after more than one shift, Immedi- ately after expo- sure or after work-	TRGS 903

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			1	ing hours	
			mandelic acid plus	end of shift, for	DED

		ingriouro		
	mandelic acid plus	end of shift, for	DE DFG	
	phenylglyoxylic	long-term expo-	BAT	
	acid: 600 mg/g	sures after several		
	creatinine	previous shifts,		
	(Urine)	Immediately after		
		exposition or after		
		working hours		

1

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Routes of expo- sure	Potential health ef- fects	Value
styrene	Workers	Dermal	Long-term systemic effects, Chronic ef- fects	406 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects, Chronic ef- fects	85 mg/m3
	Workers	Inhalation	Acute systemic ef- fects, Chronic effects	289 mg/m3
	Workers	Inhalation	Acute local effects, Short-term exposure	306 mg/m3
	Consumers	Oral	Long-term systemic effects, Chronic ef- fects	2,1 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects, Chronic ef- fects	343 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects, Chronic ef- fects	10,2 mg/m3
	Consumers	Inhalation	Acute systemic ef- fects, Short-term exposure	174,25 mg/m3
	Consumers	Inhalation	Acute local effects, Short-term exposure	182,75 mg/m3

#### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
styrene	Fresh water	0,028 mg/l
	Sea water	0,014 mg/l
	Fresh water sediment	0,614 mg/kg dry weight (d.w.)
	Sea sediment	0,307 mg/kg dry weight (d.w.)
	Soil	0,2 mg/kg dry weight (d.w.)
	Sewage treatment plant (STP)	5 mg/l

#### 8.2 Exposure controls

#### Personal protective equipment

Eye/face protection : Safety glasses with side-shields conforming to EN166

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Hand protection Material Break through tim Glove thickness Directive Protective index	ie :	Fluorinated rubbe > 480 min >= 0,4 mm DIN EN 374 Class 6	r
Remarks	:	cation of degrada about break throu values! The exact to be obtained fro choice of an appre material but also of from one produce	discarded and replaced if there is any indi- tion or chemical breakthrough. The data gh time/strength of material are standard break through time/strength of material has m the producer of the protective glove. The opriate glove does not only depend on its on other quality features and is different r to the other. Preventive skin protection not suitable. Nitrile gloves are not suitable. our gloves.
Skin and body proted	ction :	Please wear suita or heat-resistant s Long sleeved clot	
Respiratory protectio	n :	exposure limits. Use the indicated	easures to comply with the occupational respiratory protection if the occupational exceeded and/or in case of product release
Filter type	:	Combined particu	lates and organic vapor type (A-P)
Protective measures	:	located close to th	n the skin and the eyes.

# **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

Physical state	: liquid
Color	: amber
Odor	: characteristic
Melting point/range	: -31 °C Literary value styrene

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Boiling point/boiling range	: 145 °C Literary value styrene
Upper explosion limit / Upper flammability limit	<ul> <li>G,1 %(V)</li> <li>Literary value styrene</li> </ul>
Lower explosion limit / Lower	r : 1,1 %(V) Literary value styrene
Flash point	: 31 °C Literary value styrene
Autoignition temperature	: 490 °C Literary value styrene
рН	: No data available substance/mixture is non-soluble (in water)
Viscosity Viscosity, dynamic	: 750 mPa.s (23 °C)
Viscosity, kinematic	: 750 mm2/s (23 °C)
Solubility(ies) Water solubility	: insoluble
Partition coefficient: n- octanol/water	: log Pow: 2,96 (25 °C) Literary value styrene
Vapor pressure	: 6 hPa (20 °C)
Density	: No data available

#### 9.2 Other information

No data available

#### **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

No decomposition if used as directed.

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#### 10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reaction	ons
Hazardous reactions :	Avoid radical-forming starting agents, peroxides and reactive metals. Polymerization can occur.Polymerization is a highly exother- mic reaction and may generate sufficient heat to cause ther- mal decomposition and/or rupture containers.
10.4 Conditions to avoid	
Conditions to avoid :	Heat, flames and sparks. Strong sunlight for prolonged periods.
10.5 Incompatible materials	
Materials to avoid :	Strong acids and oxidizing agents polymerization initiators Copper Copper alloys Brass

#### **10.6 Hazardous decomposition products**

Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.

#### **SECTION 11: Toxicological information**

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

#### Acute toxicity

Not classified due to lack of data.

#### Product:

Acute inhalation toxicity	:	Acute toxicity estimate: > 20 mg/l Exposure time: 4 h Test atmosphere: vapor Method: Calculation method
Components:		
styrene:		
Acute oral toxicity	:	LD50 Oral (Rat): 5.000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 11,8 mg/l Exposure time: 4 h Test atmosphere: vapor
Acute dermal toxicity	:	LD50 Dermal (Rat): > 2.000 mg/kg Method: OECD Test Guideline 402

#### 1,4-naphthoquinone:

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Acute oral toxicity	: LD50 Oral (Rat): 124 mg/kg	
Acute inhalation toxicity	: LC50 (Rat): 0,046 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403	
Acute dermal toxicity	<ul> <li>Assessment: The substance or mixture has no acute dermal toxicity Remarks: Effects of skin contacts may include: Causes burns.</li> </ul>	
Skin corrosion/irritation Causes skin irritation.		
Components:		
styrene:		
Species Result	: Rabbit : irritating	
<b>1,4-naphthoquinone:</b> Result	: Causes burns.	
Serious eye damage/eye in Causes serious eye irritatior	tation	
Components:		
styrene:		
Species Result	: Rabbit : irritating	
1,4-naphthoquinone:		
Result	: Risk of serious damage to eyes.	
Respiratory or skin sensit	ation	
Skin sensitization Not classified due to lack of	ata.	
Respiratory sensitization Not classified due to lack of	ata.	
Components:		
<b>styrene:</b> Species Result	<ul><li>: Guinea pig</li><li>: Does not cause skin sensitization.</li></ul>	

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<b>1,4-naphthoquinone:</b> Result	:	May cause sensi	tization by skin contact.
Germ cell mutagenicity Not classified due to lack of d	ata.		
<b>Carcinogenicity</b> Not classified due to lack of d	ata.		
Reproductive toxicity Suspected of damaging the u	nbc	orn child.	
Components:			
<b>styrene:</b> Reproductive toxicity - As- sessment	:		naging the unborn child., Some evidence of n development, based on animal experi-
<b>STOT-single exposure</b> May cause respiratory irritation	on.		
Components:			
<b>styrene:</b> Assessment	:	May cause respir	atory irritation.
1,4-naphthoquinone: Assessment	:	May cause respir	atory irritation.
STOT-repeated exposure Causes damage to organs (h	eari	ng organs) through	prolonged or repeated exposure if inhaled.
Components:			
<b>styrene:</b> Routes of exposure Target Organs Assessment	:	Inhalation hearing organs Causes damage exposure.	to organs through prolonged or repeated
Aspiration toxicity Not classified due to lack of d	ata.		
Components:			

#### styrene:

May be fatal if swallowed and enters airways.

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#### 11.2 Information on other hazards

#### **Endocrine disrupting properties**

#### Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### **SECTION 12: Ecological information**

#### 12.1 Toxicity

#### **Components:**

styrene:		
Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 4,02 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 4,7 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Selenastrum capricornutum (green algae)): 4,9 mg/l Exposure time: 72 h
		EC10 (Selenastrum capricornutum (green algae)): 0,28 mg/l Exposure time: 96 h
Toxicity to microorganisms	:	EC50 (Natural microorganism): ca. 500 mg/l Method: OECD Test Guideline 209
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 1,01 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211
Ecotoxicology Assessment Chronic aquatic toxicity	:	Harmful to aquatic life with long lasting effects.
1,4-naphthoquinone:		
Toxicity to fish	:	(Oryzias latipes (Japanese medaka)): 0,045 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,0261 mg/l Exposure time: 48 h Method: OECD Test Guideline 202

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Toxicity to algae/aquatic plants	: EC50 (Pseud Exposure time	lokirchneriella subcapitata (algae)): 0,42 mg/l e: 72 h
M-Factor (Acute aquatic tox icity)	«- : 10	
M-Factor (Chronic aquatic toxicity)	: 1	
Ecotoxicology Assessme	nt	
Acute aquatic toxicity	: Very toxic to	aquatic life.
Chronic aquatic toxicity	: Very toxic to	aquatic life with long lasting effects.
12.2 Persistence and degradal	bility	
Components:		
styrene:		
Biodegradability	: Result: Read Biodegradati Exposure tim	
<b>1,4-naphthoquinone:</b> Biodegradability	Biodegradati Exposure tim	
12.3 Bioaccumulative potentia	I	
Components:		
styrene:		
Partition coefficient: n- octanol/water	: log Pow: 2,96	6 (25 °C)
1,4-naphthoquinone:		
Partition coefficient: n- octanol/water	: log Pow: 1,7	7 (25 °C)
12.4 Mobility in soil		
No data available		
12.5 Results of PBT and vPvB	assessment	
Product:		
Assessment		ce/mixture contains no components considered ersistent, bioaccumulative and toxic (PBT), or

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		very persistent 0.1% or higher.	and very bioaccumulative (vPvB) at levels of

#### **12.6 Endocrine disrupting properties**

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### 12.7 Other adverse effects

Product:		
Additional ecological infor- mation	:	No data available

#### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product	Do not empty into tainer at hazardous Dispose of in acco Dispose of wastes	with domestic refuse. drains, dispose of this material and its con- s or special waste collection point. rdance with local regulations. in an approved waste disposal facility. waste management company.
Contaminated packaging	dling site for recycl Store containers a accordance with th Packaging that is r the unused produc	nd offer for recycling of material when in le local regulations. not properly emptied must be disposed of as
Waste Code	5	te Codes are only suggestions: I bottoms and reaction residues

#### **SECTION 14: Transport information**

#### 14.1 UN number or ID number

ADN	:	UN 1866
ADR	:	UN 1866
RID	:	UN 1866
IMDG	:	UN 1866

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ΙΑΤΑ	: UN 1866
14.2 UN proper shipping name	
ADN	: RESIN SOLUTION
ADR	: RESIN SOLUTION
RID	: RESIN SOLUTION
IMDG	: RESIN SOLUTION
ΙΑΤΑ	: Resin solution
14.3 Transport hazard class(es)	
	Class Subsidiary risks
ADN	: 3
ADR	: 3
RID	: 3
IMDG	: 3
ΙΑΤΑ	: 3
14.4 Packing group	
<b>ADN</b> Packing group Classification Code Hazard Identification Number Labels	: III : F1 : 30 : 3
ADR Packing group Classification Code Hazard Identification Number Labels Tunnel restriction code	: III : F1 : 30 : 3 : (D/E)
<b>RID</b> Packing group Classification Code Hazard Identification Number Labels	: III : F1 : 30 : 3
<b>IMDG</b> Packing group Labels EmS Code	: III : 3 : F-E, <u>S-E</u>
IATA (Cargo) Packing instruction (cargo aircraft) Packing instruction (LQ) Packing group Labels	<ul> <li>366</li> <li>Y344</li> <li>III</li> <li>Flammable Liquids</li> </ul>

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# Carsystem POLYESTER REPARATURHARZ

Ver 1.2	sion DE / EN		evision Date: 3.02.2024	Date of last issue: 13.09.2023 Date of first issue: 14.06.2022
	IATA (Passenger) Packing instruction (passen- ger aircraft) Packing instruction (LQ) Packing group Labels		355 Y344 III Flammable Liquid	ds
14.	5 Environmental hazards			
	ADN Environmentally hazardous	:	no	
	ADR Environmentally hazardous	:	no	
	<b>RID</b> Environmentally hazardous	:	no	
	IMDG Marine pollutant	:	no	

#### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

#### **SECTION 15: Regulatory information**

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the fol- lowing entries should be considered: Number on list 75, 3
		If you intend to use this product as tattoo ink, please contact your ven- dor.
REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# Carsystem POLYESTER REPARATURHARZ

Version		Revision Date:	Date of last issue: 13.09.2023
1.2	DE / EN	28.02.2024	Date of first issue: 14.06.2022

Seveso III: Directive 2012/18/EU of the Euro-P5c FLAMMABLE LIQUIDS pean Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Water hazard class (Germa- : WGK 2 obviously hazardous to water Classification according to AwSV, Annex 1 (5.2)

#### Other regulations:

ny)

The product is subject to the supply restrictions of the Ordinance on the Prohibition of Chemicals.

Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

#### **15.2 Chemical Safety Assessment**

A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has not been carried out for this product.

#### **SECTION 16: Other information**

#### **Full text of H-Statements**

H226 H301	:	Flammable liquid and vapor. Toxic if swallowed.
H304	:	May be fatal if swallowed and enters airways.
H314	÷	Causes severe skin burns and eye damage.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H330	:	Fatal if inhaled.
H332	:	Harmful if inhaled.
H335	:	May cause respiratory irritation.
H361d	:	Suspected of damaging the unborn child.
H372	:	Causes damage to organs through prolonged or repeated exposure.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.
Full text of other abbreviatio	ns	
Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Asp. Tox.	:	Aspiration hazard

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# Carsystem POLYESTER REPARATURHARZ

Version		Revision Date:	Date of last issue: 13.09.2023
1.2 D		8.02.2024	Date of first issue: 14.06.2022
	: S. BAT MAK S 900 3	Specific target org Germany. MAK B/ Germany. MAK B/	city jan toxicity - repeated exposure jan toxicity - single exposure AT Annex XIII AT Annex IIa 900 - Occupational exposure limit values. values

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

#### Further information

Classification of the mixture:		Classification procedure:
Flam. Liq. 3	H226	Based on product data or assessment

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# Carsystem POLYESTER REPARATURHARZ

Version 1.2	DE / EN	Revision Date: 28.02.2024	Date of last issue: 13.09.2023 Date of first issue: 14.06.2022	
Skin	Irrit. 2	H315	Calculation method	
Eye I	rrit. 2	H319	Calculation method	
Repr.	2	H361d	Calculation method	
STO	F SE 3	H335	Calculation method	
STO	FRE 1	H372	Calculation method	
Aqua	tic Chronic 3	H412	Calculation method	

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

#### DE / EN

# **BPO-Härter rot**

Version		Revision Date:	Date of last issue: 27.02.2024
2.4	DE / EN	25.03.2024	Date of first issue: 11.07.2022

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

1.1	Product identifier		
	Trade name	:	BPO-Härter rot
	Product code	:	124.631
1.2	Relevant identified uses of the Use of the Sub-	es :	ubstance or mixture and uses advised against Curing chemical
	stance/Mixture		
	Recommended restrictions on use	:	Industrial use, professional use, public use
1.3	Details of the supplier of the	sa	fety data sheet
	Company		JASA AG Müslistrasse 43 8957 Spreitenbach Schweiz
			info@jasa-ag.ch, www.jasa-ag.ch
	Telephone Telefax		+41 (0)44 431 60 70 +41 (0)44 432 63 17
	Responsible Department	: F	Productmanagement, Tel: +41 (0)44 431 60 70, sds@jasa-ag.ch

#### 1.4 Emergency telephone

Telephone

: Tox Info Suisse (STIZ), Tel: 145

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# **BPO-Härter rot**

Version		Revision Date:	Date of last issue: 27.02.2024
2.4	DE / EN	25.03.2024	Date of first issue: 11.07.2022

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) Organic peroxides, Type E H242: Heating may cause a fire.						
Eye irritation, Category 2	H319: Causes serious eye irritation.					
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.					
Short-term (acute) aquatic hazard, Cate- gory 1	H400: Very toxic to aquatic life.					
Long-term (chronic) aquatic hazard, Cat- egory 1	H410: Very toxic to aquatic life with long lasting effects.					

#### 2.2 Label elements

Labelling	(REGULATION	(EC) No	1272/2008)	
			L	

÷

Hazard pictograms



Signal Word	:	Warning	
Hazard Statements	:	H317 H319	Heating may cause a fire. May cause an allergic skin reaction. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects.
Precautionary Statements	:	1	If medical advice is needed, have product con- tainer or label at hand. Keep out of reach of children.
		Prevention:	
			Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
		:	Keep/Store away from clothing/ strong acids, ba- ses, heavy metal salts and other reducing sub- stances /combustible materials.
			Keep only in original packaging.
			Avoid release to the environment.
			Wear protective gloves/ protective clothing/ eye protection/ face protection.
		Response:	
		P302 + P352	IF ON SKIN: Wash with plenty of soap and water.

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# **BPO-Härter rot**

Version 2.4	DE / EN	Revision Date: 25.03.2024	Date of last issue: 27.02.2024 Date of first issue: 11.07.2022
		ter pre	P338 IF IN EYES: Rinse cautiously with wa- for several minutes. Remove contact lenses, if sent and easy to do. Continue rinsing. t medical advice/ attention if you feel unwell.
		Storage:	
			Store in a well-ventilated place. Keep cool. otect from sunlight.
		Disposal:	
		fac	pose of contents/ container to an approved ility in accordance with local, regional, national d international regulations.

#### Hazardous ingredients which must be listed on the label:

dibenzoyl peroxide

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

Chemical nature : Mixture contains Organic Peroxide

#### Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		· · · ·
	Registration number		
dibenzoyl peroxide	94-36-0 202-327-6 617-008-00-0 01-2119511472-50	Org. Perox. B; H241 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 45 - <= 52
		M-Factor (Acute	

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# **BPO-Härter rot**

		Revision Date: 25.03.2024			
			aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10		
ethar	nediol	107-21-1 203-473-3 603-027-00-1 01-21194568	Acute Tox. 4; H302 STOT RE 2; H373 (Kidney)	>= 1 - < 10	

For explanation of abbreviations see section 16.

#### **SECTION 4: First aid measures**

#### 4.1 Description of first-aid measures

<ul> <li>In the case of accident or if you feel unwell, seek medical advice immediately.</li> <li>Move out of dangerous area.</li> <li>Take off contaminated clothing and shoes immediately.</li> <li>Show this material safety data sheet to the doctor in attendance.</li> <li>First aider needs to protect himself.</li> </ul>
: Move to fresh air. Get medical attention.
: Wash off immediately with soap and plenty of water. Call a physician if irritation persists.
<ul> <li>Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.</li> <li>Keep eye wide open while rinsing.</li> <li>Remove contact lenses.</li> <li>Consult a physician.</li> </ul>
: Rinse mouth with water. Do NOT induce vomiting. Call a physician immediately.
s and effects, both acute and delayed
: May cause an allergic skin reaction. Causes serious eye irritation.
ate medical attention and special treatment needed
: Treat symptomatically.

# 5.1 Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO2)

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# **BPO-Härter rot**

Vers 2.4	sion	DE / EN		vision Date: .03.2024	Date of last issue: 27.02.2024 Date of first issue: 11.07.2022
				Dry powder Water spray jet Alcohol-resistant f	ōam
	Unsuita media	able extinguishing	:	High volume wate	r jet
5.2 \$	5.2 Special hazards arising from			substance or mix	kture
	Specific hazards during fire fighting		:	Hazardous decom tions.	nposition products formed under fire condi-
5.3	Advice	for firefighters			
	Special protective equipment for fire-fighters		:	Wear self-contain	ed breathing apparatus and protective suit.
	Further	information	:	Collect contamina must not be disch Fire residues and	o cool unopened containers. ted fire extinguishing water separately. This arged into drains. contaminated fire extinguishing water must accordance with local regulations.

#### **SECTION 6: Accidental release measures**

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

		Personal precautions	:	Wear personal protective equipment. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Do not smoke. Avoid contact with skin, eyes and clothing. In the case of vapor formation use a respirator with an ap- proved filter.
--	--	----------------------	---	--

#### 6.2 Environmental precautions

Environmental precautions	:	Do not flush into surface water or sanitary sewer system.
		Local authorities should be advised if significant spillages
		cannot be contained.

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

Do not flush with water.
--------------------------

#### 6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# **BPO-Härter rot**

7.3

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#### **SECTION 7: Handling and storage**

# 7.1 Precautions for safe handling Technical measures : Ensure that eyewash stations and safety showers are close to the workstation location. Advice on safe handling : Use only with adequate ventilation.

Advice on sale handling		<ul> <li>Disc only with adequate ventilation.</li> <li>Provide sufficient air exchange and/or exhaust in work rooms.</li> <li>Wear personal protective equipment.</li> <li>Keep away from heat and sources of ignition.</li> <li>Handle and open container with care.</li> <li>Keep container tightly closed and dry.</li> <li>Never return unused material to storage receptacle.</li> <li>Risk of decomposition.</li> <li>Prevent contamination with readily oxidizable materials and polymerization accelerators.</li> <li>Avoid inhalation of vapor or mist.</li> <li>In case of insufficient ventilation, wear suitable respiratory equipment.</li> <li>Avoid release to the environment.</li> </ul>
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection. Keep away from open flames, hot surfaces and sources of ignition. Keep away from direct sunlight. Avoid shock and friction. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment.

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

oblighter of the storage,	inc	
Requirements for storage areas and containers	:	Store in original container. Avoid letting the product become dry. Keep containers tightly closed in a cool, well-ventilated place. Store between 41 and 77 °F in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.
Advice on common storage	:	Keep away from food, drink and animal feedingstuffs. Keep away from reducing agents. Incompatible with acids and bases. Heavy metal compounds
Storage class (TRGS 510)	:	5.2
Recommended storage tem- perature	:	5 - 25 °C
Specific end use(s)		
Specific use(s)	:	No data available The rules which cover amongst other things the requirement for ventilation, protective clothing, personal protective equip- ment etc. can be obtained from the National Occupational

Health and Safety Board.

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# **BPO-Härter rot**

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#### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

#### **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis	
dibenzoyl peroxide	94-36-0	AGW (Inhalable fraction)	5 mg/m3	DE TRGS 900	
	Peak-limit cat	egory: 1;(I)			
		MAK (measured	1 mg/m3	DE DFG MAK	
		as the alveolate fraction)			
		nation: Damage to th the BAT value is ob	e embryo or foetus is unlikely served	/ when the	
		MAK (inhalable fraction)	4 mg/m3	DE DFG MAK	
		nation: Damage to th the BAT value is ob	e embryo or foetus is unlikely served	/ when the	
ethanediol	107-21-1	STEL	40 ppm 104 mg/m3	2000/39/EC	
	Further inform skin, Indicativ		possibility of significant uptak	e through the	
		TWA	20 ppm 52 mg/m3	2000/39/EC	
	Further information: Identifies the possibility of significant uptake through the skin, Indicative				
		AGW (Vapour and aerosols)	10 ppm 26 mg/m3	DE TRGS 900	
	Peak-limit category: 2;(I)				
	Further information: Skin absorption, When there is compliance with and biological tolerance values, there is no risk of harming the unbo				
		MAK	10 ppm 26 mg/m3	DE DFG MAK	
	Further information: Danger of absorption through the skin, Damage to embryo or foetus is unlikely when the MAK value or the BAT value is o served				

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Routes of expo- sure	Potential health ef- fects	Value
dibenzoyl peroxide	Consumers	Oral	Long-term systemic effects	2 mg/kg bw/day
	Workers	Dermal	Long-term systemic effects	13,3 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	39 mg/m3
ethanediol	Workers	Inhalation	Long-term local ef- fects	35 mg/m3
	Workers	Dermal	Long-term systemic effects	106 mg/kg

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# **BPO-Härter rot**

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		Consumers	Inhalation	Long-term local ef- fects	7 mg/m3
		Consumers	Dermal	Long-term systemic effects	53 mg/kg

## Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
dibenzoyl peroxide	Fresh water	0,00002 mg/l
	Intermittent use/release	0,000602 mg/l
	Sea water	0,000002 mg/l
	Fresh water sediment	0,0127 mg/kg dry weight (d.w.)
	Sea sediment	0,00127 mg/kg dry weight (d.w.)
	Soil	0,0025 mg/kg dry weight (d.w.)
	Sewage treatment plant (STP)	0,35 mg/l
ethanediol	Fresh water	10 mg/l
	Sea water	1 mg/l
	Intermittent use/release	10 mg/l
	Sewage treatment plant (STP)	199,5 mg/l
	Fresh water sediment	20,9 mg/kg
	Soil	1,53 mg/kg

#### 8.2 Exposure controls

<b>Personal protective equipm</b> Eye/face protection	afety glasses with side-shields conf	orming to EN166
Hand protection Material	eoprene gloves	
Material Break through time Glove thickness Directive Protective index	trile rubber 30 min = 0,14 mm IN EN 374 ass 2	
Remarks	loves should be discarded and replation of degradation or chemical bre bout break through time/strength of lues! The exact break through time be obtained from the producer of the loce of an appropriate glove does r aterial but also on other quality feat on one producer to the other.	eakthrough. The data material are standard strength of material has ne protective glove. The not only depend on its
Skin and body protection	ease wear suitable protective clothi heat-resistant synthetic fibres. ong sleeved clothing	ng, e.g. made of cotton
Respiratory protection	oply technical measures to comply to posure limits.	with the occupational

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# **BPO-Härter rot**

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		limit they must	are facing concentrations above the exposure use appropriate certified respirators. lequate ventilation wear respiratory protection.
I	Filter type	: Combined par	ticulates and organic vapor type (A-P)
Protective measures		Ensure that ey located close t Avoid contact	o not eat, drink or smoke. /e flushing systems and safety showers are to the working place. with the skin and the eyes. adequate ventilation.

#### **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

Physical state	:	• •
Color	:	red
Odor	:	characteristic
Odor Threshold	:	not determined
Melting point/range	:	0 °C
Boiling point/boiling range	:	Not applicable
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Flash point	:	Not applicable, Decomposition
Autoignition temperature	:	Not applicable
Self-Accelerating decomposi- tion temperature (SADT)	:	50 °C

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# **BPO-Härter rot**

Version 2.4 DE / EN	Revision Date: 25.03.2024	Date of last issue: 27.02.2024 Date of first issue: 11.07.2022
рН	: 4 - 5 (20 °C)	
Viscosity Viscosity, dynamic	: not determined	
Viscosity, kinematic	: not determined	
Solubility(ies) Water solubility	: insoluble	
Partition coefficient: n- octanol/water	: No data availabl	e
Vapor pressure	: 23 hPa (for a componen	t of this mixture)
Density	: 1,15 - 1,25 g/cm	3 (20 °C)
Relative vapor density	: not determined	
9.2 Other information		
Oxidizing properties	: Organic peroxide	e
	Sustains combu	stion
Organic peroxides	: Peroxide conten The substance c type E.	t: 50 % or mixture is an organic peroxide classified as

## **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

No decomposition if used as directed.

#### 10.2 Chemical stability

No decomposition if stored and applied as directed.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions	: Risk of decomposition.
	Reacts violently in contact with acids, amines, driers, polymer-
	ization accelerators and easily oxidized materials.

10.4 Conditions to avoid

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# **BPO-Härter rot**

Version 2.4	DE / EN	Revision Date: 25.03.2024	Date of last issue: 27.02.2024 Date of first issue: 11.07.2022
Cond	itions to avoid	Extremes Keep awa Contact w	oose to temperatures above: > 25 °C of temperature and direct sunlight. y from heat and sources of ignition. th incompatible substances can cause decomposi- below SADT.
10.5 Incor	mpatible materials		
Mater	rials to avoid		rs, strong acids and bases, heavy metals and al salts, reducing agents

#### **10.6 Hazardous decomposition products**

Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition

#### **SECTION 11: Toxicological information**

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

Acute toxicity Not classified due to lack of da	ata.			
Product: Acute oral toxicity	:	Acute toxicity estimate: > 2.000 mg/kg		
		Method: Calculation method		
Components:				
dibenzoyl peroxide:				
Acute oral toxicity	:	LD50 Oral (Rat): > 2.000 mg/kg		
Acute inhalation toxicity	:	LC0 (Rat): > 24,3 mg/l Exposure time: 4 h		
ethanediol:				
Acute inhalation toxicity	:	LC50 (Rat): > 2,5 mg/l Exposure time: 6 h Test atmosphere: dust/mist		
Acute dermal toxicity	:	LD50 Dermal (Mouse): > 3.500 mg/kg		
Skin corrosion/irritation	nta			
Serious eye damage/eye irrit		on		
Causes serious eye irritation.				
Respiratory or skin sensitization				
Skin sensitization				
NAL				

May cause an allergic skin reaction.

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

# **BPO-Härter rot**

Versi 2.4	on DE / EN	Revision Date: 25.03.2024	Date of last issue: 27.02.2024 Date of first issue: 11.07.2022
	Respiratory sensitization Not classified due to lack of	data.	
	Germ cell mutagenicity Not classified due to lack of	data.	
	<b>Carcinogenicity</b> Not classified due to lack of	data.	
	Reproductive toxicity Not classified due to lack of	data.	
	STOT-single exposure Not classified due to lack of	data.	
	STOT-repeated exposure Not classified due to lack of	data.	
9	Components:		
 -	<b>ethanediol:</b> Routes of exposure Target Organs Assessment		e or mixture is classified as specific target organ ated exposure, category 2.
	Aspiration toxicity Not classified due to lack of	data.	
<u>(</u>	Components:		
	ethanediol: No aspiration toxicity classit	ication	
11.2	Information on other haza	rds	
I	Endocrine disrupting pro	perties	

## Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### **SECTION 12: Ecological information**

#### 12.1 Toxicity

**Components:** 

dibenzoyl peroxide:

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

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Toxicity to fish	:	LC50 (Oncorhync Exposure time: 96 Method: OECD Te	
		NOEC (Oncorhyn Exposure time: 96	chus mykiss (rainbow trout)): 0,0316 mg/l s h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia m Exposure time: 48 Method: OECD Te	
		NOEC (Daphnia n Exposure time: 48 Method: OECD Te	
Toxicity to algae/aquatic plants	:	EC50 (Pseudokiro mg/l Exposure time: 72 Method: OECD Te	
		NOEC (Pseudokir mg/l Exposure time: 72 Method: OECD Te	
M-Factor (Acute aquatic tox- icity)	:	10	
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	EC10: 0,001 mg/l Exposure time: 21 Species: Daphnia Method: OECD Te	magna (Water flea)
M-Factor (Chronic aquatic toxicity)	:	10	
ethanediol:			
Toxicity to fish	:	LC50 (Pimephales Exposure time: 96	s promelas (fathead minnow)): > 72.860 mg/l s h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia m Exposure time: 48 Method: OECD Te	
Toxicity to algae/aquatic plants	:	NOEC (algae): > 7 Exposure time: 72 Method: OECD Te	h .
Toxicity to fish (Chronic tox- icity)	:	NOEC: 15.380 mg Exposure time: 7 d Species: Pimepha	

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

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aqua	icity to daphnia and other atic invertebrates (Chron- xicity)		NOEC: 8.590 mg Exposure time: 7 Species: Cerioda	
12.2 Per	sistence and degradabil	lity		
Con	nponents:			
dibe	enzoyl peroxide:			
Bioc	legradability	:	Result: Readily b Biodegradation: Exposure time: 2 Method: OECD T	71 %
etha	anediol:			
Bioc	legradability	:	Result: Readily b Biodegradation: Exposure time: 1 Method: OECD T	90 - 100 %
12.3 Bio	accumulative potential			
Con	nponents:			
Part	enzoyl peroxide: ition coefficient: n- nol/water	:	log Pow: 3,2 (20	°C)
othe	anediol:			
Part	ition coefficient: n- nol/water	:	log Pow: -1,36 (2	5 °C)
	<b>bility in soil</b> data available			
12.5 Res	ults of PBT and vPvB a	sse	ssment	
	<u>duct:</u> essment	:	to be either persis	nixture contains no components considered stent, bioaccumulative and toxic (PBT), or nd very bioaccumulative (vPvB) at levels of
12.6 Enc	locrine disrupting prope	ertie	es	
Pro	duct:			
	essment	:	ered to have end REACH Article 5	ixture does not contain components consid- ocrine disrupting properties according to 7(f) or Commission Delegated regulation or Commission Regulation (EU) 2018/605 at

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

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		levels of 0.1%	ő or higher.
12.7 Othe	r adverse effects		
<u>Produ</u> Additi matio	onal ecological infor-	: No data avail	able
SECTION	13: Disposal cons	iderations	
13.1 Wast	e treatment methods		
Produ	ıct	Do not dispos Do not empty tainer at haza	aste streams during collection. se of with domestic refuse. r into drains, dispose of this material and its con- ardous or special waste collection point. accordance with local regulations.
Conta	aminated packaging	the unused p	at is not properly emptied must be disposed of as roduct. accordance with local regulations.
Waste	e Code	16 05 06, lab hazardous su icals	Waste Codes are only suggestions: oratory chemicals, consisting of or containing ibstances, including mixtures of laboratory chem- oxides, for example hydrogen peroxide

# **SECTION 14: Transport information**

#### 14.1 UN number or ID number

ADN	:	UN 3108
ADR	:	UN 3108
RID	:	UN 3108
IMDG	:	UN 3108
ΙΑΤΑ	:	UN 3108
14.2 UN proper shipping name		
ADN	:	ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide)
ADR	:	ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide)
RID	:	ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide)
IMDG	:	ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide)

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

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ΙΑΤΑ	: Organic peroxid (dibenzoyl perox		
14.3 Transport hazard class(es)			
	Class	Subsidiary risks	
ADN	: 5.2		
ADR	: 5.2		
RID	: 5.2		
IMDG	: 5.2		
ΙΑΤΑ	: 5.2	HEAT	
14.4 Packing group			
ADN Packing group Classification Code Labels	: Not assigned by : P1 : 5.2	regulation	
<b>ADR</b> Packing group Classification Code Labels Tunnel restriction code	: Not assigned by : P1 : 5.2 : (D)	regulation	
<b>RID</b> Packing group Classification Code Hazard Identification Number Labels	: P1	539	
<b>IMDG</b> Packing group Labels EmS Code	: Not assigned by : 5.2 : F-J, S-R	regulation	
IATA (Cargo) Packing instruction (cargo aircraft)	: 570		
Packing group Labels	: Not assigned by : Organic Peroxid	regulation les, Keep Away From Heat	
IATA (Passenger) Packing instruction (passen- ger aircraft)	: 570		
Packing group Labels	: Not assigned by : Organic Peroxid	r regulation les, Keep Away From Heat	
14.5 Environmental hazards			
<b>ADN</b> Environmentally hazardous	: no		
ADR Environmentally hazardous	: no		

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

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#### RID

Environmentally hazardous : no IMDG Marine pollutant : yes

#### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

#### **SECTION 15: Regulatory information**

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

REACH - Restrictions on the manufacture, placing the market and use of certain dangerous substa mixtures and articles (Annex XVII)	•	lowii Num If yo	ditions of restriction for the fol- ng entries should be considered: hber on list 75 u intend to use this product as to ink, please contact your ven-
REACH - Candidate List of Substances of Very Concern for Authorization (Article 59).	High	Not	applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer		Not	applicable
Regulation (EU) 2019/1021 on persistent organi tants (recast)	c pollu-	Not	applicable
REACH - List of substances subject to authorisa (Annex XIV)	ation	Not	applicable
Seveso III: Directive 2012/18/EU of the Euro-P6b pean Parliament and of the Council on the control of major-accident hazards involving dangerous substances.			EACTIVE SUBSTANCES (TURES and ORGANIC DES
	E1 EI	NVIRO	NMENTAL HAZARDS
Water hazard class (Germa- : WGK 2 obvio ny) Classification			water V, Annex 1 (5.2)

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#### Other regulations:

BG-Merkblatt M001 beachten (German regulatory requirements) BGV B4 organische Peroxide. (German regulatory requirements)

Gefahrengruppe nach § 3 BGV B4: II (German regulatory requirements) § 5Abs. 4b : Derogation according to the Ordinance on the Prohibition of Chemicals (ChemVerbotsV)

The product is subject to the supply restrictions of the Ordinance on the Prohibition of Chemicals.

Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

#### **15.2 Chemical Safety Assessment**

A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has not been carried out for this product.

#### **SECTION 16: Other information**

#### Full text of H-Statements

H241	:	Heating may cause a fire or explosion.
H302	:	Harmful if swallowed.
H317	:	May cause an allergic skin reaction.
H319	:	Causes serious eye irritation.
H373	:	May cause damage to organs through prolonged or repeated exposure if swallowed.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
Full text of other abbreviation	ons	
Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Irrit.	:	Eye irritation
Org. Perox.	:	Organic peroxides
Skin Sens.	:	Skin sensitization
STOT RE	:	Specific target organ toxicity - repeated exposure
2000/39/EC		Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
DE DFG MAK	:	- · · · · · · · · · · · · · · · · · · ·
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.
2000/39/EC / TWA	:	Limit Value - eight hours
2000/39/EC / STEL		Short term exposure limit
DE DFG MAK / MAK		
DE TRGS 900 / AGW	:	Time Weighted Average

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ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information Classification of the m	nixture:	Classification procedure:
Org. Perox. E	H242	Based on product data or assessment
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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