Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 12.03.2021 Version number 2 Revision: 12.03.2021

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

· **1.1 Product identifier**
· Trade name: **Hyperclear, Componente A**

· Article number: 11450 (11449)
· UFI: WWS1-P03G-Q00G-FVU4
· **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
· Application of the substance / the mixture Polyurethane resin

· **1.3 Details of the supplier of the safety data sheet**
· Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH Tel. +49(0)911-642960
Lechstrasse 28 Fax. +49(0)911-644456
D 90451 Nürnberg e-mail info@akemi.de

· Further information obtainable from: Laboratory
· **1.4 Emergency telephone number:** Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
Tel. +49(0)911-64296-59
Reachable during the following office hours:
Monday – Thursday from 07:30 a.m. to 16:30 p.m.
Friday from 07:30 a.m. to 13:30 p.m.
+44 (171) 635 91 91
National Poison Inform. Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER

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SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· Classification according to Regulation (EC) No 1272/2008

Eye Irrit. 2	H319	Causes serious eye irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.

· **2.2 Label elements**
· Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.
· Hazard pictograms

GHS07

· Signal word Warning

· Hazard-determining components of labelling: tetraethyl-N,N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate
poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H- benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-
bis(1,2,2,6,6-Pentamethyl-piperidyl)sebacat
methyl 1,2,2,6,6-pentamethyl-4-piperidylsebacate

· Hazard statements
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H412 Harmful 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.

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P103	Read carefully and follow all instructions.
P261	Avoid breathing vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves / eye 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.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P501	Dispose of contents/container in accordance with local/ regional/national/international regulations.

· **2.3 Other hazards**
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**
· Description: Mixture: consisting of the following components.

· Dangerous components:

CAS: 136210-30-5 ELINCS: 429-270-1 Index number: 607-521-00-8 Reg.nr.: 01-0000017556-64-0000	tetraethyl-N,N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate Skin Sens. 1, H317 Aquatic Chronic 3, H412	50-100%
CAS: 168253-59-6 ELINCS: 433-260-2 Reg.nr.: 01-0000017942-65-0000	Asparagins äure, N,N'-(2-methyl-1,5-pentadiyl)bis-, 1,1',4,4'-tetraethylester Aquatic Chronic 3, H412	12.5-25%
CAS: 102-60-3 EINECS: 203-041-4 Reg.nr.: 01-2119552434-41-000x	1,1',1",1'"-ethylenedinitrilotetrapropan-2-ol Eye Irrit. 2, H319	<10%
CAS: 623-91-6 EINECS: 210-819-7	diethyl fumarate Eye Dam. 1, H318 Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335	1-5%
CAS: 104810-47-1 ELINCS: 400-830-7 Index number: 607-176-00-3 Reg.nr.: 01-2119396032-43	poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]- Aquatic Chronic 2, H411 Skin Sens. 1, H317	1-5%
CAS: 41556-26-7 Reg.nr.: 01-2119491304-40	bis(1,2,2,6,6-Pentamethyl-piperidyl)sebacat Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Sens. 1, H317	<1%
CAS: 82919-37-7 EINECS: 280-060-4	methyl 1,2,2,6,6-pentamethyl-4-piperidylsebacate Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Sens. 1, H317	<1%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· After inhalation: Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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· After swallowing: If symptoms persist consult doctor.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

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SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· Suitable extinguishing agents: CO_2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.

· For safety reasons unsuitable extinguishing agents: Water with full jet

· **5.2 Special hazards arising from the substance or mixture** In case of fire, the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NOx)
Hydrogen cyanide (HCN)

· **5.3 Advice for firefighters**

· Protective equipment: Wear self-contained respiratory protective device.

· Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation

· **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.

· **6.4 Reference to other sections** See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

· Information about fire - and explosion protection: No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· Storage:

· Requirements to be met by storerooms and receptacles: Provide floor trough without outlet.

· Information about storage in one common storage facility: Store away from foodstuffs.

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· Further information about storage conditions: Protect from frost.
Store in cool, dry conditions in well sealed receptacles.
· Storage class: 12
· **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**
· Additional information about design of technical facilities: No further data; see item 7.
· Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs

136210-30-5 tetraethyl-N,N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate		
Oral	DNEL (Kurzzeit-akut)	1.4 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	4 mg/kg bw/day (ARB)
		1.4 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	1.4 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	4 mg/kg bw/day (ARB)
		1.4 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	112 mg/m³ Air (ARB)
		4.8 mg/m³ Air (BEV)
	DNEL (Langzeit-wiederholt)	28 mg/m³ Air (ARB)
		4.8 mg/m³ Air (BEV)
168253-59-6 Asparaginsäure, N,N'-(2-methyl-1,5-pentadiyl)bis-, 1,1',4,4'-tetraethylester		
Oral	DNEL (Kurzzeit-akut)	2.5 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	2.5 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	2.5 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	7 mg/kg bw/day (ARB)
		2.5 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	200 mg/m³ Air (ARB)
		8.7 mg/m³ Air (BEV)
	DNEL (Langzeit-wiederholt)	50 mg/m³ Air (ARB)
		8.7 mg/m³ Air (BEV)
102-60-3 1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol		
Oral	DNEL (Langzeit-wiederholt)	2.5 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	4.2 mg/kg bw/day (ARB)
		2.5 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	29.4 mg/m³ Air (ARB)
		8.7 mg/m³ Air (BEV)
104810-47-1 poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H- benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-		
Oral	DNEL (Langzeit-wiederholt)	0.025 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	0.5 mg/kg bw/day (ARB)
		0.25 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	0.35 mg/m³ Air (ARB)

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		0.085 mg/m³ Air (BEV)
41556-26-7 bis(1,2,2,6,6-Pentamethyl-piperidyl)sebacat		
Oral	DNEL (Langzeit-wiederholt)	0.5 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	2 mg/kg bw/day (ARB)
		1 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	3.53 mg/m³ Air (ARB)
		0.87 mg/m³ Air (BEV)

· PNECs

136210-30-5 tetraethyl-N,N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate	
PNEC (wässrig)	31.1 mg/l (KA)
	0.000013 mg/l (MW)
	0.00013 mg/l (SW)
PNEC (fest)	0.1 mg/kg Trockengew (BO)
	0.02 mg/kg Trockengew (MWS)
	0.21 mg/kg Trockengew (SWS)
168253-59-6 Asparaginsäure, N,N'-(2-methyl-1,5-pentadiyl)bis-, 1,1',4,4'-tetraethylester	
PNEC (wässrig)	320 mg/l (KA)
	0.00417 mg/l (MW)
	0.0417 mg/l (SW)
PNEC (fest)	0.42 mg/kg Trockengew (BO)
	0.22 mg/kg Trockengew (MWS)
	2.24 mg/kg Trockengew (SWS)
102-60-3 1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol	
PNEC (wässrig)	70 mg/l (KA)
	0.0085 mg/l (MW)
	0.085 mg/l (SW)
	1.51 mg/l (WAS)
PNEC (fest)	0.0183 mg/kg Trockengew (BO)
	0.0193 mg/kg Trockengew (MWS)
	0.193 mg/kg Trockengew (SWS)
104810-47-1 poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H- benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-	
PNEC (wässrig)	10 mg/l (KA)
	0.00023 mg/l (MW)
	0.0023 mg/l (SW)
	0.028 mg/l (WAS)
PNEC (fest)	2 mg/kg Trockengew (BO)
	0.306 mg/kg Trockengew (MWS)
	3.06 mg/kg Trockengew (SWS)
41556-26-7 bis(1,2,2,6,6-Pentamethyl-piperidyl)sebacat	
PNEC (wässrig)	1 mg/l (KA)
	0.00022 mg/l (MW)
	0.0022 mg/l (SW)
	0.009 mg/l (WAS)
PNEC (fest)	0.21 mg/kg Trockengew (BO)
	0.11 mg/kg Trockengew (MWS)
	1.05 mg/kg Trockengew (SWS)

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· Additional information: The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· Personal protective equipment:
· General protective and hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals.
Avoid close or long term contact with the skin.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not eat or drink while working.

· Respiratory protection: Short term filter device:
Filter A/P2
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands: The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times´ data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory anylyses of the company KCL GmbH in compliance with EN374.
This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: http://www.kcl.de).
Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact gloves made of the following materials are suitable: Butyl rubber, BR

· As protection from splashes gloves made of the following materials are suitable: Butoject (KCL, Art_No. 897, 898)
Butyl rubber, BR

· Not suitable are gloves made of the following materials: Leather gloves
Strong material gloves

· Eye protection: Goggles recommended during refilling

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· Body protection: Protective work clothing

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SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· General Information	
· Appearance:	
Form:	Pasty
Colour:	Different according to colouring
· Odour:	Weak, characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	240 °C
· Flash point:	Not applicable.
· Flammability (solid, gas):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure:	Not determined.
· Density at 20 °C:	1.11 g/cm³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Solids content:	6.4 %
· **9.2 Other information**	No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity**	No further relevant information available.
· **10.2 Chemical stability**	
· Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions**	No dangerous reactions known.
· **10.4 Conditions to avoid**	No further relevant information available.
· **10.5 Incompatible materials:**	No further relevant information available.

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· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

* **SECTION 11: Toxicological information**

· **11.1 Information on toxicological effects**

· Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)		
Oral	LD50	81,119 mg/kg (rat)

136210-30-5 tetraethyl-N,N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate		
Oral	LD50	>2,000 mg/kg (rat) (Richtlinie 67/548/EWG, Anhang V, B.1.)
Dermal	LD50	>2,000 mg/kg (rat) (Richtlinie 67/548/EWG, Anhang V, B.3.)
Inhalative	LC50/4h	>4,224 mg/m3 (rat) (OECD-Prüfrichtlinie 403)
168253-59-6 Asparaginsäure, N,N'-(2-methyl-1,5-pentadiyl)bis-, 1,1',4,4'-tetraethylester		
Oral	LD50	>2,000 mg/kg (rat) (OECD423)
	NOEL	200 mg/kg (rat)
102-60-3 1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol		
Oral	LD50	>2,000-<5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
623-91-6 diethyl fumarate		
Oral	LD50	1,780 mg/kg (rat)
104810-47-1 poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H- benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-		
Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
41556-26-7 bis(1,2,2,6,6-Pentamethyl-piperidyl)sebacat		
Oral	LD50	3,230 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

· Primary irritant effect:

· Skin corrosion/irritation Based on available data, the classification criteria are not met.

· Serious eye damage/irritation Causes serious eye irritation.

· Respiratory or skin sensitisation May cause an allergic skin reaction.

· Additional toxicological information:

· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

· Germ cell mutagenicity Based on available data, the classification criteria are not met.

· Carcinogenicity Based on available data, the classification criteria are not met.

· Reproductive toxicity Based on available data, the classification criteria are not met.

· STOT-single exposure Based on available data, the classification criteria are not met.

· STOT-repeated exposure Based on available data, the classification criteria are not met.

· Aspiration hazard Based on available data, the classification criteria are not met.

* **SECTION 12: Ecological information**

· **12.1 Toxicity**

· Aquatic toxicity:

136210-30-5 tetraethyl-N,N'-(methylenedicyclohexane-4,1-diyl)bis-DL-aspartate	
EC50	3,110 mg/l (BES) (ISO Vorschrift 8192-1986 E)
IC50/72h	113 mg/l (Scenedesmus subspicatus) (Richtlinie 67/548/EWG, Anhang V, C.3.)

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EC50/48h	88.6 mg/l (daphnia magna) (UBA-Verfahrensvorschlag Mai 1984)
ErC50/72h	113 mg/l (Scenedesmus subspicatus)
NOEC	100 mg/kg (Ac) (OECD 208)
	100 mg/kg (As) (OECD 208)
	100 mg/kg (Bn) (OECD 208)
	≥1,000 mg/kg (Eisenia fetida (Regenwürmer)) (OECD-Prüfrichtlinie 207)
NOEC/21d	0.01 mg/l (daphnia magna) (Richtlinie 67/548/EWG, Anhang V, C.20.)
LC50/96h	66 mg/l (Danio rerio.) (OECD 203)
168253-59-6 Asparaginsäüre, N,N'-(2-methyl-1,5-pentadiyl)bis-, 1,1',4,4'-tetraethylester	
EC50	>10,000 mg/l (BES)
LC 0/96h	>87 mg/l (Danio rerio.)
ErC50/72h	<84.2 mg/l (Scenedesmus subspicatus)
EC0	>96.9 mg/l (daphnia magna)
102-60-3 1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol	
EC50/72u	>100 mg/l (Desmodesmus subspicatus) (Richtlinie 93/69/EWG. c.3)
NOEC/21d	>1 mg/l (daphnia magna)
EC50/48h	>100 mg/l (daphnia magna) (RL 93/69/EWG, C.2)
LC50/96h	>100 mg/l (Leuciscus idus) (DIN 38412 Teil 15)
104810-47-1 poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H- benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-	
EC50	>1,000 mg/l (BES)
EC50/48h	4 mg/l (daphnia magna)
LC 0	>1,000 mg/l (Eisenia fetida (Regenwürmer))
NOEC	100 mg/kg (Eisenia fetida (Regenwürmer))
NOEC/21d	0.78 mg/l (daphnia magna)
EC10	10 mg/l (Pseudokirchneriella subcapitata)
EC50/72h	>100 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	2.8 mg/l (Oncorhynchus mykiss)
41556-26-7 bis(1,2,2,6,6-Pentamethyl-piperidyl)sebacat	
EC50/24h	20 mg/l (daphnia magna) (OECD 202)
EC50	>100 mg/l (BES) (OECD 209)
NOEC/21d	1 mg/l (daphnia magna)
EC50/72h	1.68 mg/l (Desmodesmus subspicatus) (OECD 201)
LC50/96h	0.9 mg/l (Brachydanio rerio)
	0.97 mg/l (lepomis macrochirus)
	7.9 mg/l (Oncorhynchus mykiss) (OECD 203: ISO 7346; 92/69/EWG, C.1)

· **12.2 Persistence and degradability** Not easily biodegradable
· **12.3 Bioaccumulative potential** Non significant accumulation in organisms
· **12.4 Mobility in soil** No further relevant information available.
· Ecotoxical effects:
· Remark: Harmful to fish
· Additional ecological information:
· General notes: Harmful to aquatic organisms
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
· **12.5 Results of PBT and vPvB assessment**
· PBT: Not applicable.
· vPvB: Not applicable.

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· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packaging:
· Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1 UN-Number** · ADR, ADN, IMDG, IATA	Void
· **14.2 UN proper shipping name** · ADR, ADN, IMDG, IATA	Void
· **14.3 Transport hazard class(es)** · ADR, ADN, IMDG, IATA · Class	Void
· **14.4 Packing group** · ADR, IMDG, IATA	Void
· **14.5 Environmental hazards:** · Marine pollutant:	No
· **14.6 Special precautions for user**	Not applicable.
· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

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SECTION 15: Regulatory information

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

· Directive 2012/18/EU
· Named dangerous substances - ANNEX I None of the ingredients is listed.

· National regulations:

· Information about limitation of use: Employment restrictions concerning juveniles must be observed.

· Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
· VOC EU 0.0 g/l
· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.

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H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

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· Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3