

FIX ALL HT

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

1.1 Product identifier:

Product name : FIX ALL HT
Registration number REACH : Not applicable (mixture)
Product type REACH : Mixture

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

1.2.1 Relevant identified uses

Sealant

1.2.2 Uses advised against

No uses advised against known

1.3 Details of the supplier of the safety data sheet:

Supplier of the safety data sheet

SOULDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
Tel: +32 14 42 42 31
Fax: +32 14 42 65 14
msds@soudal.com

Manufacturer of the product

SOULDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
Tel: +32 14 42 42 31
Fax: +32 14 42 65 14
msds@soudal.com

1.4 Emergency telephone number:

24h/24h: +32 14 58 45 45 (BIG) (Telephone advice: English, French, German, Dutch)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation EC No 1272/2008

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

2.1.2 Classification according to Directive 67/548/EEC-1999/45/EC

Not classified as dangerous according to the criteria of directive(s) 67/548/EEC and/or 1999/45/EC

2.2 Label elements:

Labelling according to Regulation EC No 1272/2008 (CLP)

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Labelling according to Directive 67/548/EEC-1999/45/EC (DSD/DPD)

Not classified as dangerous in compliance with Directive 67/548/EEC and/or Directive 1999/45/EC

2.3 Other hazards:

CLP

Slightly irritant to eyes

DSD/DPD

Slightly irritant to eyes

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SECTION 3: Composition/information on ingredients

3.1 Substances:

Not applicable

3.2 Mixtures:

Name (REACH Registration No)	CAS No EC No	Conc. (C)	Classification according to DSD/DPD	Classification according to CLP	Note	Remark
hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics (01-2119552497-29)		1%<C<10%	Xn; R65	Asp. Tox. 1; H304	(1)(10)	UVCB
bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate (01-2119537297-32)	52829-07-9 258-207-9	0.1%<C<2.5%	Xi; R36 N; R51-53	Eye Irrit. 2; H319 Aquatic Chronic 2; H411	(1)	Constituent
reaction mass of octadecanamide, 12-hydroxy-n-[2-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide, n,n'-1,2-ethanediybis- (01-2119545465-35)	907-495-0	2.5%<C<25%	R52-53	Aquatic Chronic 3; H412	(1)	Reaction product
dioctylbis(pentane-2,4-dionato-O,O')tin (01-0000020199-67)	54068-28-9 483-270-6	0.1%<C<1%	Repr. Cat. 3; R62 - 63 Xn; R48/20/21/22 R43 R52-53	Repr. 2; H361fd STOT RE 2; H373 Skin Sens. 1; H317 Aquatic Chronic 3; H412	(1)	Constituent

(1) For R-phrases and H-statements in full: see heading 16

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1 Description of first aid measures:

General:

If you feel unwell, seek medical advice.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Wash immediately with lots of water. Soap may be used. Take victim to a doctor if irritation persists.

After eye contact:

Rinse with water. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Consult a doctor/medical service if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed:

4.2.1 Acute symptoms

After inhalation:

No effects known.

After skin contact:

No effects known.

After eye contact:

Slight irritation.

After ingestion:

No effects known.

4.2.2 Delayed symptoms

No effects known.

4.3 Indication of any immediate medical attention and special treatment needed:

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

5.1.1 Suitable extinguishing media:

Water spray. Polyvalent foam. ABC powder. Carbon dioxide.

5.1.2 Unsuitable extinguishing media:

No unsuitable extinguishing media known.

5.2 Special hazards arising from the substance or mixture:

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Upon combustion: formation of CO, CO₂ and small quantities of nitrous vapours, hydrogen chloride.

5.3 Advice for firefighters:

5.3.1 Instructions:

No specific fire-fighting instructions required.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

No naked flames.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves. Protective clothing.

Suitable protective clothing

See heading 8.2

6.2 Environmental precautions:

Contain leaking substance. Use appropriate containment to avoid environmental contamination.

6.3 Methods and material for containment and cleaning up:

Scoop solid spill into closing containers. Clean contaminated surfaces with a soap solution. Wash clothing and equipment after handling.

6.4 Reference to other sections:

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1 Precautions for safe handling:

Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Remove contaminated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities:

7.2.1 Safe storage requirements:

Storage temperature: 20 °C. Store in a dry area. Keep container in a well-ventilated place. Store at room temperature. Meet the legal requirements. Max. storage time: 1 year(s).

7.2.2 Keep away from:

Heat sources, water/moisture.

7.2.3 Suitable packaging material:

Synthetic material.

7.2.4 Non suitable packaging material:

No data available

7.3 Specific end use(s):

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

Product name	Test	Number
No data available		

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

DNEL - Workers

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hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Effect level (DNEL/DMEL)	Type	Value	Remark
		No data available	

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects inhalation	2 mg/kg bw/day	
	Acute systemic effects dermal	5.6 mg/m ³	
	Long-term systemic effects dermal	2 mg/kg bw/day	
	Long-term systemic effects inhalation	5.6 mg/m ³	

reaction mass of octadecanamide, 12-hydroxy-n-[2-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide,

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects inhalation	3 mg/m ³	
	Acute local effects dermal	11.2 mg/cm ²	
	Acute local effects inhalation	3 mg/m ³	
	Long-term local effects dermal	3.75 mg/cm ²	
	Long-term local effects inhalation	3 mg/m ³	

DNEL - General population

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Effect level (DNEL/DMEL)	Type	Value	Remark
		No data available	

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects dermal	1 mg/kg bw/day	
	Acute systemic effects inhalation	1.4 mg/m ³	
	Acute -systemic effects oral	1 mg/kg bw/day	
	Long-term systemic effects dermal	1 mg/kg bw/day	
	Long-term systemic effects inhalation	1.4 mg/m ³	
	Long-term systemic effects oral	1 mg/kg bw/day	

reaction mass of octadecanamide, 12-hydroxy-n-[2-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide,

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute local effects dermal	11.2 mg/cm ²	
	Long-term systemic effects oral	0.56 mg/kg bw/day	
	Long-term local effects dermal	3.75 mg/cm ²	

PNEC

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Compartments	Value	Remark
	No data available	

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Compartments	Value	Remark
Fresh water	0.005 mg/l	
Marine water	0.0005 mg/l	
Aqua (intermittent releases)	0.011 mg/l	
STP	1 mg/l	
Fresh water sediment	8.02 mg/kg sediment dw	
Fresh water	0.802 mg/kg sediment dw	
Soil	1.6 mg/kg soil dw	

reaction mass of octadecanamide, 12-hydroxy-n-[2-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide,

Compartments	Value	Remark
Fresh water	43.2 µg/l	
Salt water	4.32 µg/l	
STP	10 mg/l	
Fresh water sediment	1080 mg/kg sediment dw	
Marine water sediment	108 mg/kg sediment dw	
Soil	217 mg/kg soil dw	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2 Exposure controls:

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

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Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke during work.

a) Respiratory protection:

Insufficient ventilation: wear respiratory protection.

b) Hand protection:

Gloves.

c) Eye protection:

Safety glasses.

d) Skin protection:

Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Physical form	Paste
Odour	Characteristic odour
Odour threshold	No data available
Colour	Variable in colour, depending on the composition
Particle size	Not applicable
Explosion limits	No data available
Flammability	Not easily combustible
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	No data available
Flash point	> 240 °C
Evaporation rate	No data available
Vapour pressure	No data available
Relative vapour density	No data available
Solubility	water ; insoluble organic solvents ; soluble
Relative density	1.4 ; 20 °C
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

Physical hazards

No physical hazard class

9.2 Other information:

Surface tension	No data available
Absolute density	1400 kg/m ³ ; 20 °C

SECTION 10: Stability and reactivity

10.1 Reactivity:

Heating increases the fire hazard. No data available.

10.2 Chemical stability:

Stable under normal conditions.

10.3 Possibility of hazardous reactions:

No data available.

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10.4 Conditions to avoid:

Keep away from naked flames/heat.

10.5 Incompatible materials:

Water/moisture.

10.6 Hazardous decomposition products:

Upon combustion: formation of CO, CO₂ and small quantities of nitrous vapours, hydrogen chloride.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

11.1.1 Test results

Acute toxicity

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No (test) data on the mixture available

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Oral	LD50	OECD 401	>5000 mg/kg bw		Rat	Male/female	Experimental value
Dermal	LD50	OECD 402	>3160 mg/kg bw	24 h	Rabbit	Male/female	Experimental value
Inhalation (aerosol)	LC50	OECD 403	>5266 mg/m ³ air	4 h	Rat	Male/female	Experimental value

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Oral	LD50	Equivalent to OECD 423	3700 mg/kg bw	4 h	Rat	Male/female	Experimental value
Dermal	LD50	Equivalent to OECD 402	> 3170 mg/kg bw	24 h	Rat	Male/female	Experimental value
Inhalation (aerosol)	LC50	Equivalent to OECD 403	0.5 mg/l air	4 weeks (daily, 5 days/week)	Rat	Male/female	Experimental value

reaction mass of octadecanamide, 12-hydroxy-n-[2-[[1-oxododecyl]amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide, n,n'-

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Oral	LD50	OECD 423	> 2000 mg/kg		Rat	Female	Experimental value
Dermal	LD50	OECD 402	>2000 mg/kg bw	24 h	Rat	Male/female	Experimental value
Inhalation (dust)	LC50	OECD 403	>5.11 mg/l air	4 h	Rat	Male/female	Experimental value

diocetylbis(pentane-2,4-dionato-O,O')tin

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Oral	LD50	Other	2500 mg/kg		Rat		Literature
Dermal	LD50	OECD 402	>2000 mg/g		Rat		Experimental value

Judgement is based on the relevant ingredients

Conclusion

Not classified for acute toxicity

Corrosion/irritation

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No (test) data on the mixture available

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Not irritating	OECD 405	24 h	24; 48; 72 hours	Rabbit	Experimental value
Skin	Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value
Skin	Not irritating	Other	24 h	24; 48; 72 hours	Human	Experimental value

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Highly irritating	OECD 405	24 h	1; 24; 48; 72; 168 hours	Rabbit	Experimental value
Skin	Not irritating	OECD 404	24 h	24; 48; 72 hours	Rabbit	Experimental value

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reaction mass of octadecanamide, 12-hydroxy-n-[2-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide, n,n'-

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Slightly irritating	OECD 405		1; 24; 48; 72 hours	Rabbit	Experimental value
Skin	Slightly irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value

diocetylbis(pentane-2,4-dionato-O,O')tin

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Not irritating					Literature study
Dermal	Not irritating					Literature study

Judgement is based on the relevant ingredients

Conclusion

Not classified as irritating to the skin

Not classified as irritating to the eyes

Respiratory or skin sensitisation

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No (test)data on the mixture available

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Gender	Value determination
Skin	Not sensitizing	OECD 406	24 h	24; 48 hours	Guinea pig	Female	Read-across
Skin	Not sensitizing	Other	216 h	24; 48 hours	Human	Male/female	Experimental value

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Gender	Value determination
Skin	Not sensitizing	OECD 406		24 hours	Guinea pig	Male/female	Experimental value

reaction mass of octadecanamide, 12-hydroxy-n-[2-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide, n,n'-

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Gender	Value determination
Skin	Not sensitizing	OECD 429			Mouse	Female	Experimental value

diocetylbis(pentane-2,4-dionato-O,O')tin

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Gender	Value determination
Skin	Sensitizing	OECD 429					Experimental value

Judgement is based on the relevant ingredients

Conclusion

Not classified as sensitizing for skin

Specific target organ toxicity

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No (test)data on the mixture available

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Gender	Value determination
Oral	NOAEL	Equivalent to OECD 408	≥5000 mg/kg bw/day		No effect	13 weeks (daily)	Rat	Male/female	Read-across
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	>10400 mg/m ³ air		No effect	13 weeks (6h/day, 5 days/week)	Rat	Male/female	Read-across

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Gender	Value determination
Oral	NOAEL	Equivalent to OECD 408	<29 mg/kg bw/day		No effect	13 week(s)	Rat	Female	Experimental value
Oral	LOAEL	Equivalent to OECD 408	29 mg/kg bw/day		Weight reduction	13 week(s)	Rat	Female	Experimental value

Judgement is based on the relevant ingredients

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

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No (test)data on the mixture available

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hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Result	Method	Test substrate	Effect	Value determination
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster lung fibroblasts		Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 473	Human lymphocytes		Experimental value

reaction mass of octadecanamide, 12-hydroxy-n-[2-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide, n,n'

Result	Method	Test substrate	Effect	Value determination
Negative	OECD 476	Mouse (lymphoma L5178Y cells)		Experimental value
Negative	OECD 471	Bacteria (S.typhimurium)		Experimental value
Negative	OECD 473	Human lymphocytes		Experimental value

Mutagenicity (in vivo)

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No (test)data on the mixture available

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Result	Method	Exposure time	Test substrate	Gender	Organ	Value determination
Negative	Equivalent to OECD 483	8 weeks (6h/day, 5 days/week)	Mouse	Male		Read-across
Negative	Equivalent to OECD 475		Rat	Male/female		Read-across
Negative	Equivalent to OECD 474		Mouse	Male/female		Read-across

Carcinogenicity

FIX ALL HT

No (test)data on the mixture available

Reproductive toxicity

FIX ALL HT

No (test)data on the mixture available

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

	Parameter	Method	Value	Exposure time	Species	Gender	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	>1000 mg/kg bw/day	10 day(s)	Rat		No effect		Experimental value
Effects on fertility	NOAEC	Equivalent to OECD 416	≥1500 ppm	13 weeks (6h/day, 5 days/week)	Rat	Male/female	No effect		Read-across
	NOAEC	Equivalent to OECD 421	≥300 ppm	8 weeks (6h/day, 5 days/week)	Rat	Male/female	No effect		Read-across
	NOAEL	Equivalent to OECD 422	>1000 mg/kg bw/day	6 weeks (daily)	Rat	Male/female	No effect		Read-across

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

	Parameter	Method	Value	Exposure time	Species	Gender	Effect	Organ	Value determination
Developmental toxicity	NOAEL (P/F1)	OECD 415	30 mg/kg bw/day		Rat	Male/female	Weight changes		Experimental value

reaction mass of octadecanamide, 12-hydroxy-n-[2-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide, n,n'

	Parameter	Method	Value	Exposure time	Species	Gender	Effect	Organ	Value determination
Effects on fertility	NOAEL	OECD 421	1000 mg/kg bw/day		Rat	Male/female	No effect		Experimental value

Judgement is based on the relevant ingredients

Conclusion CMR

Not classified for carcinogenicity

Not classified for mutagenic or genotoxic toxicity

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Not classified for reprotoxic or developmental toxicity

Toxicity other effects

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No (test) data on the mixture available

Chronic effects from short and long-term exposure

FIX ALL HT

No effects known.

SECTION 12: Ecological information

12.1 Toxicity:

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No (test) data on the mixture available

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	>1028 mg/l	96 h	Scophthalmus maximus			Experimental value
Acute toxicity invertebrates	LC50	Other	>3193 mg/l	48 h	Acartia tonsa			Experimental value
Toxicity algae and other aquatic plants	ErC50	ISO 10253	>10000 mg/l	72 h	Skeletonema costatum			Experimental value
Long-term toxicity fish	NOEL		>1000 mg/l	28 day(s)	Oncorhynchus mykiss			QSAR
Long-term toxicity aquatic invertebrates	NOEL		>1000 mg/l	21 day(s)	Daphnia magna			QSAR
Toxicity aquatic micro-organisms	EC50	OECD 209	>100 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	4.4 mg/l	96 h	Lepomis macrochirus	Flow-through system	Fresh water	Experimental value
Acute toxicity invertebrates	LC50	OECD 202	8.58 mg/l	48 h	Daphnia magna	Semi-static	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	OECD 201	1.1 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
	NOEC	OECD 201	0.05 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity aquatic invertebrates	EC50	OECD 211	0.96 mg/l	21 day(s)	Daphnia magna	Semi-static	Fresh water	Experimental value; Growth
	NOEC	OECD 211	0.23 mg/l	21 day(s)	Daphnia magna	Semi-static	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	IC50	OECD 209	>100 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value

reaction mass of octadecanamide, 12-hydroxy-n-12-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide, n,n'-1,2-ethanediylbis-

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	NOEC	OECD 203	≥100 mg/l	96 h	Oncorhynchus mykiss	Static system	Fresh water	Experimental value; GLP
Acute toxicity invertebrates	LC50	OECD 202	94.9 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	LC50	OECD 201	43.2 mg/l	72 h	Pseudokirchneriella subcapitata	Semi-static	Fresh water	Experimental value; Growth rate
Toxicity aquatic micro-organisms	EC50	OECD 209	>1000 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; GLP

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diocetylbis(pentane-2,4-dionato-O,O')tin

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	86 mg/l	96 h	Pisces	Static system		Experimental value
Acute toxicity invertebrates	EC50	OECD 202	58.6 mg/l	48 h	Daphnia magna	Static system		Experimental value
Toxicity algae and other aquatic plants	EC50	OECD 201	300 mg/l	24 h	Scenedesmus subspicatus	Static system		Experimental value

Classification of the mixture is based on the relevant ingredients and on application of the summation method

Conclusion

Not classified as dangerous for the environment according to the criteria of Directive 1999/45/EC

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2 Persistence and degradability:

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Biodegradation water

Method	Value	Duration	Value determination
OECD 306: Biodegradability in Seawater	74 %	28 day(s)	Experimental value

Phototransformation water (DT50 water)

Method	Value	Conc. OH-radicals	Value determination

Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B: CO2 Evolution Test	10-24 %	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
SRC AOP v1.92	2.54 h	500000 molecule/cm ³	Calculated value

reaction mass of octadecanamide, 12-hydroxy-n-[2-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide, n,n'-1,2-ethanediylbis-

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D: Closed Bottle Test	60 %	28 day(s)	Experimental value

Conclusion

Contains non readily biodegradable component(s)

12.3 Bioaccumulative potential:

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Log Kow

Method	Remark	Value	Temperature	Value determination
		0.35		

reaction mass of octadecanamide, 12-hydroxy-n-[2-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide, n,n'-1,2-ethanediylbis-

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		8.6	25 °C	Experimental value

diocetylbis(pentane-2,4-dionato-O,O')tin

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

Conclusion

Contains bioaccumulative component(s)

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12.4 Mobility in soil:

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	8.3 %		83.2 %	7.4 %	1 %	Calculated value

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

(log) Koc

Parameter	Method	Value	Value determination
Koc	OECD 106	>=780<=16000	Experimental value
log Koc	OECD 106	>=2.89<=4.2	Experimental value

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0 Pa.m ³ /mol	SRC HENRYWIN v3.20	25 °C		Calculated value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I	0.03 %	0 %	0.02 %	0.02 %	99.9 %	Calculated value

reaction mass of octadecanamide, 12-hydroxy-n-[2-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide, n,n'-1,2-ethanediylbis-

(log) Koc

Parameter	Method	Value	Value determination
	OECD 121	5.4	Experimental value

Conclusion

No straightforward conclusion can be drawn based upon the available numerical values

12.5 Results of PBT and vPvB assessment:

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006.

12.6 Other adverse effects:

FIX ALL HT

Global warming potential (GWP)

None of the known components is included in the list of substances which may contribute to the greenhouse effect (Regulation (EC) No 842/2006)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No. 1272/2008 and 1005/2009)

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate

Ground water

Ground water pollutant

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1 Waste treatment methods:

13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, decision 2000/0532/EC).

08 04 10 (waste adhesives and sealants other than those mentioned in 08 04 09). Depending on branch of industry and production process, also other EURAL codes may be applicable. Can be considered as non hazardous waste according to Directive 2008/98/EC.

13.1.2 Disposal methods

Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).

15 01 02 (plastic packaging).

SECTION 14: Transport information

Road (ADR)

14.1 UN number:

Transport	Not subject
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14.2 UN proper shipping name:

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14.3 Transport hazard class(es):

Hazard identification number	
Class	
Classification code	

14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Environmentally hazardous substance mark	no
--	----

14.6 Special precautions for user:

Special provisions	
Limited quantities	

Rail (RID)

14.1 UN number:

Transport	Not subject
-----------	-------------

14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Hazard identification number	
Class	
Classification code	

14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Environmentally hazardous substance mark	no
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14.6 Special precautions for user:

Special provisions	
Limited quantities	

Inland waterways (ADN)

14.1 UN number:

Transport	Not subject
-----------	-------------

14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Class	
Classification code	

14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Environmentally hazardous substance mark	no
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14.6 Special precautions for user:

Special provisions	
Limited quantities	

Sea (IMDG/IMSBC)

14.1 UN number:

Transport	Not subject
-----------	-------------

14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Class	
-------	--

14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	
Limited quantities	

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

Annex II of MARPOL 73/78	
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Air (ICAO-TI/IATA-DGR)

14.1 UN number:

Transport	Not subject
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14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Class	
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14.4 Packing group:

Packing group	
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Labels	
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14.5 Environmental hazards:

Environmentally hazardous substance mark	no
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14.6 Special precautions for user:

Special provisions	
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Passenger and cargo transport: limited quantities: maximum net quantity per packaging	
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SECTION 15: Regulatory information

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

European legislation:

REACH Annex XVII – Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, <0.03% aromatics	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. 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. 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with R65 or H304. 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage"; b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010. 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public. 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'
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Volatile organic compounds (VOC)

2 %

National legislation The Netherlands

FIX ALL HT

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 05
Waterbezwaarlijkheid	1

National legislation Germany

FIX ALL HT

WGK	1; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)
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reaction mass of octadecanamide, 12-hydroxy-n-[2-[(1-oxodecyl)amino]ethyl]- and n,n'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide) and decanamide, n,n'-1,2-ethanediybis-

TA-Luft	TA-Luft Klasse 5.2.5/I
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National legislation France

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FIX ALL HT

No data available

National legislation Belgium

FIX ALL HT

No data available

15.2 Chemical safety assessment:

No chemical safety assessment has been conducted.

SECTION 16: Other information

Information based on classification according to CLP

Full text of any R-phrases referred to under headings 2 and 3:

- R36 Irritating to eyes
- R43 May cause sensitisation by skin contact
- R48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, contact with skin and if swallowed
- R51 Toxic to aquatic organisms
- R52 Harmful to aquatic organisms
- R53 May cause long-term adverse effects in the aquatic environment
- R62 Possible risk of impaired fertility
- R63 Possible risk of harm to the unborn child
- R65 Harmful: may cause lung damage if swallowed

Full text of any H-statements referred to under headings 2 and 3:

- H304 May be fatal if swallowed and enters airways.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
- H373 May cause damage to organs through prolonged or repeated exposure in contact with skin.
- H373 May cause damage to organs through prolonged or repeated exposure if swallowed.
- H373 May cause damage to organs through prolonged or repeated exposure if inhaled.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

(*) = INTERNAL CLASSIFICATION BY BIG

PBT-substances = persistent, bioaccumulative and toxic substances

DSD Dangerous Substance Directive

DPD Dangerous Preparation Directive

CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

Specific concentration limits CLP

diocylbis(pentane-2,4-dionato-O,O')tin	C > 5 %	Skin Sens. 1; H317	
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Specific concentration limits DSD

diocylbis(pentane-2,4-dionato-O,O')tin	C > 5 %	Xi;R 43	
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The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

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