

MATERIAL SAFETY DATA SHEET

DOLPHIN FIX & SEAL ALL PURPOSE

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Revision No. 00

Number of Pages: 14

1. PRODUCT AND COMPANY IDENTIFICATION

Product Details

Product Name : DOLPHIN Fix & Seal All Purpose
Product Code : AMI Fix & Seal All Purpose
Recommended Use : Consumer and Professional use

Company Details

Company Name : Al Muqarram Insulation Materials Industry L.L.C.
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2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] : Not Classified

Adverse physicochemical, human health and environmental effects : To our knowledge, this product does not present any particular risk, provided it is handled accordance with good occupational hygiene and safety practice.

2.2 Label Elements: Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) EUH Statements -
EUH210 – Safety data sheet available on request
EUH212 – Warning! Hazardous respirable dust may be formed when used. Do not breathe dust. (Except for black/brown/transparent product)

2.3 Other Hazards : Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

2.4 Component

trimethoxyvinylsilane (2768-02-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
dioctylbis(pentane-2,4-dionato-O,O')tin (54068-28-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate (52829-07-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

3. COMPOSITION/INFORMATION ON INGREDIENT

3.1 Substances : Not applicable

3.2 Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008[CLP]
reaction mass of N,N'-ethane-1,2-diylbis(hexanamide)and 12-hydroxy-N-[2-[(1-oxyhexyl)amino]ethyl]octadecanamide and N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan amide)	EC-No.: 432-430-3 REACH-no: 01-0000017860-69	≥ 1 – < 5	Aquatic Chronic 4, H413
trimethoxyvinylsilane	CAS-No.: 2768-02-7 EC-No.: 220-449-8 EC Index-No.: 014-049-00-0 REACH-no: 01-2119513215-52	≥ 0,1 – < 1	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332Skin Sens. 1B, H317
N-(2-aminoethyl)3-aminopropyltrimethoxysilane	CAS-No.: 1760-24-3 EC-No.: 217-164-6 REACH-no: 01-2119970215-39	< 1	Eye Dam. 1, H318 Skin Sens. 1, H317
dioctylbis(pentane-2,4-dionato-O,O')tin substance with national workplace exposure limit(s)(BE)	CAS-No.: 54068-28-9 EC-No.: 483-270-6 REACH-no: 01-0000020199-67	≥ 0,1 – < 1	Skin Sens. 1, H317STOT SE 2, H371
bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate	CAS-No.: 52829-07-9 EC-No.: 258-207-9 REACH-no: 01-2119537297-32	≥ 0,1 – < 1	Eye Dam. 1, H318 Repr. 2, H361f Aquatic Acute 1, H400

Full text of H- and EUH-statements: see section 16

4. FIRST AID MEASURES

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.First-aid measures after skin contact
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.
- First-aid measures after inhalation contact : Remove person to fresh air and keep comfortable for breathing.First-aid measures after skin contact
- First-aid measures after eye contact : Rinse eyes with water as a precaution.

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

- Symptoms/Effects after skin contact : Repeated exposure may cause skin dryness or cracking.

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

- Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable Extinguishing Media : None known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : Dilute toxic gases with water spray.

Protection during firefighting : Do not attempt to act without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel : Ventilate spillage area.

Emergency procedures

For emergency responders : Do not attempt to act without suitable protective equipment. For further information refer to

Protective equipment section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the workstation. Wear personal protective equipment.

Hygiene Measures : Do not eat, drink, or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store at room temperature. Store in a well-ventilated place. Keep container closed when not in use.

Maximum storage period : \approx 1 year

Packaging materials : Synthetic material.

7.3. Specific end use(s)

No additional information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

8.1.1. National occupational exposure and biological limit values

diocetylbis(pentane-2,4-dionato-O,O')tin (54068-28-9)

Belgium – Occupational Exposure Limits

WEL TWA (OEL TWA) [1]	0.1 mg/m ³
WEL STEL (OEL STEL)	0.2 mg/m ³

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate (52829-07-9)

DNEL/DMEL (Workers)

Acute - systemic effects, inhalation	2,82 mg/m ³
Long-term - systemic effects, dermal	1,6 mg/kg bw/day
Long-term - systemic effects, inhalation	2,82 mg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	0,4 mg/kg bw/day
Long-term - systemic effects, inhalation	0,69 mg/m ³
Long-term - systemic effects, dermal	0,8 mg/kg bw/day

PNEC (Water)

PNEC aqua (freshwater)	0,019 mg/l
PNEC aqua (marine water)	0,002 mg/l

PNEC (Sediment)

PNEC sediment (freshwater)	29 mg/kg dwt
PNEC sediment (marine water)	2,9 mg/kg dwt

PNEC (Soil)

PNEC soil	5,9 mg/kg dwt
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PNEC (STP)

PNEC sewage treatment plant	1 mg/l
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Reaction mass of N,N'-ethane-1,2-diylbis(hexanamide) and 12-hydroxy-N-[2-[(1-oxohexyl)amino]ethyl]octadecanamide and N,N'-ethane-1,2-diylbis(12-hydroxyoctadecanamide)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	10 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	35,24 mg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	5 mg/kg bodyweight/day
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PNEC (Water)	
PNEC aqua (freshwater)	0,009 mg/l
PNEC aqua (marine water)	0,001 mg/l
PNEC aqua (intermittent, freshwater)	3,7 mg/l

reaction mass of N,N'-ethane-1,2-diylbis(hexanamide) and 12-hydroxy-N-[2-[(1-oxohexyl)amino]ethyl]octadecanamide and N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan amide)	
PNEC (Sediment)	
PNEC sediment (freshwater)	384 mg/kg dwt
PNEC sediment (marine water)	38,4 mg/kg dwt
PNEC (Soil)	
PNEC soil	52,1 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	222,2 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

trimethoxyvinylsilane (2768-02-7)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	3,9 mg/kg bw/day
Long-term - systemic effects, inhalation	27,6 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	26,9 mg/kg bodyweight/day
Acute - systemic effects, inhalation	93,4 mg/m ³
Long-term - systemic effects, oral	0,3 mg/kg bw/day
Long-term - systemic effects, inhalation	18,9 mg/m ³
Long-term - systemic effects, dermal	7,8 mg/kg bw/day
PNEC (Water)	
PNEC aqua (intermittent, freshwater)	3,4 mg/l

diocetylbis(pentane-2,4-dionato-O,O')tin (54068-28-9)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	84 mg/m ³
Acute - local effects, inhalation	0,091 mg/m ³
Long-term - systemic effects, dermal	0,07 mg/kg bw/day
Long-term - systemic effects, inhalation	84 mg/m ³
Long-term - local effects, inhalation	0,091 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,026 mg/l

PNEC aqua (marine water)	0,0026 mg/l
PNEC aqua (intermittent, freshwater)	0,26 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,155 mg/kg dwt
PNEC sediment (marine water)	0,0155 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,0158 mg/kg dwt

diocetylbis(pentane-2,4-dionato-O,O')tin (54068-28-9)

PNEC (STP)

PNEC sewage treatment plant	1 mg/l
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8.1.5 Control Banding

No additional information available

8.2 Exposure Controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the workstation.

8.2.2. Personal protection equipment

Personal protection equipment symbol(s)



8.2.2.1. Eye and face protection

Eye protection : Safety glasses

8.2.2.2. Skin Protection

Skin and body protection : Wear suitable protective clothing

Hand protection : Protective gloves

8.2.2.3 Thermal Hazards

No additional information available

8.2.3 Environmental Exposure Control

Avoid release to the environment

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Various colors.
Appearance	: Pasty.
Odour	: characteristic.
Odour threshold	: Not available

Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Nonflammable.
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 1,045 g/cm ³ (20°C)
Relative density	: Not available
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available
Physical state	: Solid

9.2.1. Information about Physical Hazard Classes

No additional information available

9.2.2. Other Safety Characteristics

VOC Content : <1%

10. STABILITY AND REACTIVITY

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage, and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommendation storage and handling conditions (See Section-7).

10.5. Incompatible materials

No additional information available.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate (52829-07-9)

LD50 oral rat	3700 mg/kg bodyweight (Equivalent or like OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 3170 mg/kg bodyweight (Equivalent or like OECD 402, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	0,5 mg/l air (Equivalent or like OECD 403, 4 weeks (daily, 5 days / week), Rat, Male/ female, Experimental value, Inhalation (aerosol), 7 day(s))

reaction mass of N,N'-ethane-1,2-diylbis(hexanamide) and 12-hydroxy-N-[2-[(1-oxyhexyl)amino]ethyl]octadecanamide and N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan amide)

LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

trimethoxyvinylsilane (2768-02-7)

LD50 oral rat	6899 – 7012 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	3158 – 3760 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	16,8 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))

dioctylbis(pentane-2,4-dionato-O,O')tin (54068-28-9)

LD50 oral rat	2500 mg/kg (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/g (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal)

LC50 Inhalation - Rat	5,1 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified (On basis of test data. Skin sensitization Not classified)
DOLPHIN Fix and Seal All purpose	
Skin Sensitization (test on mixture), skin, In vitro	Not sensitizing (OECD 497)
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Trimethoxyvinylsilane (2768-02-7)	
NOAEL (animal/male, F0/P)	1000 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD combined Repeated dose and Reproductive/ developmental Toxicity Screening Test (Precursor Protocol of GL 422)
NOAEL (animal/Female, F0/P)	250 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)
dioctylbis(pentane-2,4-dionato-O,O')tin (54068-28-9)	
NOAEL (animal/male, F0/P)	0,3 – 0,4 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/female, F0/P)	0,3 – 0,5 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
STOT-single exposure	: Not classified
STOT-Repeated exposure	: Not classified
dioctylbis(pentane-2,4-dionato-O,O')tin (54068-28-9)	
STOT-single exposure	May cause damage to organs (immune system) (if swallowed).
Reaction mass of N,N'-ethane-1,2-diylbis(hexanamide) and 12-hydroxy-N-[2-[(1-oxylhexyl)amino]ethyl]octadecanamide and N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan amide)	
NOAEL (subacute, oral, animal/male, 28 days)	1000 mg/kg bodyweight (Literature Study)
dioctylbis(pentane-2,4-dionato-O,O')tin (54068-28-9)	
LOAEC (inhalation, rat, gas, 90 days)	650 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
Aspiration Hazard	: Not classified
Dolphin Fix & Seal All Purpose	
Viscosity, kinematic	Not applicable

Aspiration Hazard : Not classified

11.2. Information on another Hazard
No additional information available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Ecology – general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate (52829-07-9)

LC50 - Fish [1]	4,4 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value)
ErC50 algae	0,705 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriellasubcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC chronic crustacea	0,23 mg/l (OECD211, 21d, Daphnia Magna, experimental result)

Reaction mass of N,N'-ethane-1,2-diylbis(hexanamide) and 12-hydroxy-N-[2-[(1-oxihexyl)amino]ethyl]octadecanamide and N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan amide)

LC50 - Fish [1]	> 1000 mg/l (Guideline OECD203, 96h, Oncorhynchus mykiss, Static system, Freshwater, Read-across)
EC50 - Crustacea [1]	> 1000 mg/l (Guideline OECD 202, 48h, Daphnia Magna, Static system, Experimentalvalue)
EC50 72h - Algae [1]	85 mg/l (Guideline EPIWIN 3.10, 96h, Algae, Calculated value)
NOEC chronic crustacea	0,9 mg/l (Guideline OECD 211, 21d, Daphnia Magna, Semi-static system, Fresh water, Experimental value)

trimethoxyvinylsilane (2768-02-7)

LC50 - Fish [1]	191 mg/l (96 h, Oncorhynchus mykiss, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	168,7 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

trimethoxyvinylsilane (2768-02-7)

ErC50 algae	> 89 mg/l (72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC chronic algae	89 mg/l (72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

dioctylbis(pentane-2,4-dionato-O,O')tin (54068-28-9)	
LC50 - Fish [1]	71,1 mg/l (96 h, Salmo gairdneri, Flow-through system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	47,6 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Other aquatic organisms [1]	75 mg/l Test organisms (species): other:
ErC50 algae	32 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate (52829-07-9)	
Persistence and degradability	not readily degradable in water.

Reaction mass of N,N'-ethane-1,2-diylbis(hexanamide) and 12-hydroxy-N-[2-[(1-oxihexyl)amino]ethyl]octadecanamide and N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan amide)	
Biodegradation	20 % (OECD 301B: CO2 Evolution Test, 28d, Experimental value)

trimethoxyvinylsilane (2768-02-7)	
Persistence and degradability	not readily degradable in water.

dioctylbis(pentane-2,4-dionato-O,O')tin (54068-28-9)	
Persistence and degradability	not readily degradable in water.

12.3 Bioaccumulative Potential

bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate (52829-07-9)	
Partition coefficient n-octanol/water (Log Pow)	0,35 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Reaction mass of N,N'-ethane-1,2-diylbis(hexanamide) and 12-hydroxy-N-[2-[(1-oxihexyl)amino]ethyl]octadecanamide and N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan amide)	
Partition coefficient n-octanol/water (Log Kow)	> 6 (EU Method A.8, Experimental value)
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).

trimethoxyvinylsilane (2768-02-7)	
Partition coefficient n-octanol/water (Log Pow)	1,1 (QSAR, KOWWIN, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

dioctylbis(pentane-2,4-dionato-O,O')tin (54068-28-9)	
Partition coefficient n-octanol/water (Log Pow)	0,6 (Calculated, 25 °C)

Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
12.4. Mobility in Soil	
bis(2,2,6,6-tetramethyl-4-piperidyl)sebacate (52829-07-9)	
Organic Carbon Normalized Adsorption Coefficient(Log Koc)	2,89 – 4,2 (log Koc, OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method, Experimental value, GLP)
Reaction mass of N,N'-ethane-1,2-diylbis(hexanamide) and 12-hydroxy-N-[2-[(1-oxihexyl)amino]ethyl]octadecanamide and N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan amide)	
Organic Carbon Normalized Adsorption Coefficient(Log Koc)	2,28 – 5,63 (OECD 121, Experimental value)
Ecology - soil	Adsorbs into the soil.
trimethoxyvinylsilane (2768-02-7)	
Organic Carbon Normalized Adsorption Coefficient(Log Koc)	2,811 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for adsorption in soil.
dioctylbis(pentane-2,4-dionato-O,O')tin (54068-28-9)	
Surface tension	32,3 mN/m (20 °C, 30 mg/l, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	No (test)data on mobility of the substance available.
12.5. Results of P T and vPvB assessment	
Component	: No additional information available
12.6. Other adverse effects	
No additional information available	

13. DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste Treatment Methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Do not discharge into drains or the environment.
Ecology - waste materials	: Avoid release to the environment.
European List of Waste (LoW) code	: 08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances 15 01 10* - Plastic packaging

14. TRANSPORT INFORMATION

In accordance with ADR / IMDG / IATA / ADN / RID /

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special Precautions for User

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

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

Not applicable

15. REGULATORY INFORMATION

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

15.1.1. EU-Regulations

EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
3(a)	trimethoxyvinylsilane	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: 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

3(b)	trimethoxyvinylsilane ; N-(2-aminoethyl)3-aminopropyltrimethoxysilane ; dioctylbis(pentane-2,4-dionato-O,O')tin	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: 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
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Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants
Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.
Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

VOC content : < 1 %

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations
No additional information available

15.2. Chemical safety assessment
No chemical safety assessment has been carried out

16. OTHER INFORMATION

Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose

LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Full text of H- and EUH-statements:

Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
EUH210	Safety data sheet available on request.
EUH212	Warning! Hazardous respirable dust may be formed when used. Do not breathe dust. (Except for black/brown/transparent product)
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H413	May cause long lasting harmful effects to aquatic life.
Skin Sens. 1B	Skin sensitisation, category 1B

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.