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

1.1 Product identifier

greenteQ Hybrid Montagekleber white
Article number: 217.274/8857, 217.274/8858

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

1.2.1 Relevant uses

Adhesive

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

VBH Holding GmbH
Siemensstrasse 38
70825 Korntal-Münchingen / GERMANY
Phone +49 (0) 7150-15-0
Fax +49(0) 71 50-15-315
Homepage www.vbh.de
E-mail info@vbh.de

Address enquiries to

Technical information info@vbh.de

Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body +49 (0)89-19240 (24h) (English)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Skin Sens. 1: H317 May cause an allergic skin reaction.
Aquatic Acute 1: H400 Very toxic to aquatic life.
Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

Hazard pictograms


Signal word WARNING

Contains: Trimethoxyvinylsilane

N-[3-(Trimethoxysilyl)propyl]ethylenediamine

Dioctyltinbis(acetylacetonate)

Hazard statements

H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing dust.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.
P501 Dispose of contents/container in accordance with local/national regulation.

Special labelling EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

2.3 Other hazards

Environmental hazards Does not contain any PBT or vPvB substances.

Other hazards Contains no ingredients with endocrine-disrupting properties.
Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
1 - <5	Distillates (petroleum), hydrotreated light paraffinic
	CAS: 64742-55-8, EINECS/ELINCS: 265-158-7, EU-INDEX: 649-468-00-3, Reg-No.: 01-2119487077-29-XXXX
	GHS/CLP: Asp. Tox. 1: H304
1 - <5	Titanium dioxide (<10µm)
	CAS: 13463-67-7, EINECS/ELINCS: 236-675-5, EU-INDEX: 022-006-002, Reg-No.: 01-2119489379-17-XXXX
	GHS/CLP: Carc. 2: H351
1 - <5	Trimethoxyvinylsilane
	CAS: 2768-02-7, EINECS/ELINCS: 220-449-8, Reg-No.: 01-2119513215-52-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H332 - Skin Sens. 1B: H317
1 - <5	Reaktionsmasse von N,N'-ethan-1,2-diylbis(hexanamid) und 12-hydroxy-N-(2-((1-oxyhexyl)amino)ethyl)octadecanamid und N,N'-ethan-1,2-diylbis(12-hydroxyoctadecanamid)
	EINECS/ELINCS: 432-430-3, EU-INDEX: 616-200-00-1, Reg-No.: 01-0000017860-69-XXXX
	GHS/CLP: Aquatic Chronic 4: H413
0,1 - <1	N-[3-(Trimethoxysilyl)propyl]ethylenediamine
	CAS: 1760-24-3, EINECS/ELINCS: 217-164-6, Reg-No.: 01-2119970215-39-XXXX
	GHS/CLP: Eye Dam. 1: H318 - Skin Sens. 1: H317 - STOT SE 3: H335 - STOT RE 2: H373
0,1 - <1	Dioctyltinbis(acetylacetonate)
	CAS: 54068-28-9, EINECS/ELINCS: 483-270-6, Reg-No.: 01-0000020199-67-XXXX
	GHS/CLP: STOT SE 2: H371 - Skin Sens. 1: H317
	SCL [%]: 5: Skin Sens. 1: H317
0,1 - <1	Bis(1,2,2,6,6-pentamethyl-4-piperidinyl)-[(3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl)-methyl] butylmalonate
	CAS: 63843-89-0, EINECS/ELINCS: 264-513-3, Reg-No.: 01-2119978231-37-XXXX
	GHS/CLP: Acute Tox. 4: H302 - STOT RE 1: H372 - Aquatic Chronic 1: H410, M-Factor (chronic): 10
0,01 - <0,1	Pyrithione zinc
	CAS: 13463-41-7, EINECS/ELINCS: 236-671-3, EU-INDEX: 613-333-00-7
	GHS/CLP: Acute Tox. 3: H301 - Eye Dam. 1: H318 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410 - Acute Tox. 2: H330 - Repr. 1B: H360D - STOT RE 1: H372, M-Factor (acute): 1000, M-Factor (chronic): 10

Comment on component parts Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information Take off contaminated clothing and wash before reuse.

Inhalation In the event of symptoms seek medical treatment.
Ensure supply of fresh air.

Skin contact In case of contact with skin wash off immediately with soap and water.
If skin irritation or rash occurs: Get medical advice/attention.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Ingestion Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Foam, dry powder, water spray jet, carbon dioxide.

Extinguishing media that must not be used Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
In the event of fire the following can be released:
Nitrogen oxides (NOx), carbon monoxide (CO).
Hydrogen chloride (HCl).

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Do not inhale explosion and/or combustion gases.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.
Collect contaminated firefighting water separately, must not be discharged into the drains.
Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Use personal protective equipment.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.
Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Take up residues with absorbent material (e.g. sand).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.

No special measures necessary.

Do not eat, drink, smoke or take drugs at work.
Wash hands before breaks and after work.
Clean skin thoroughly after work, apply skin cream.
Use barrier skin cream.
Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Prevent penetration into the ground.

Do not store together with oxidizing agents.

Keep container in a well-ventilated place.
storage stability [months]: 12

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
Titanium dioxide (<10µm)
CAS: 13463-67-7, EINECS/ELINCS: 236-675-5, EU-INDEX: 022-006-002, Reg-No.: 01-2119489379-17-XXXX
Long-term exposure: 4 mg/m³, respirable; total inhalable: TWA=10 mg/m³
Distillates (petroleum), hydrotreated light paraffinic
CAS: 64742-55-8, EINECS/ELINCS: 265-158-7, EU-INDEX: 649-468-00-3, Reg-No.: 01-2119487077-29-XXXX
Long-term exposure: 5 mg/m³, ACGIH TLV (OIL MIST)

DNEL

Substance
Reaktionsmasse von N,N'-ethan-1,2-diylbis(hexanamid) und 12-hydroxy-N-(2-((1-oxyhexyl)amino)ethyl)octadecanamid und N,N'-ethan-1,2-diylbis(12-hydroxyoctadecanamid)
Industrial, inhalative, Long-term - systemic effects, 35,24 mg/m³
Industrial, dermal, Long-term - systemic effects, 10 mg/kg bw/day
general population, oral, Long-term - systemic effects, 5 mg/kg bw/day
Trimethoxyvinylsilane, CAS: 2768-02-7
Industrial, inhalative, Long-term - systemic effects, 27,6 mg/m³
Industrial, dermal, Long-term - systemic effects, 3,9 mg/kg bw/day
Industrial, inhalative, Acute - systemic effects, 260 mg/m³
general population, inhalative, Long-term - systemic effects, 6,7 mg/m³
general population, oral, Long-term - systemic effects, 0,3 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 7,8 mg/kg bw/day
Dioctyltinbis(acetylacetonate), CAS: 54068-28-9
Industrial, dermal, Long-term - systemic effects, 70 µg/kg bw/day
Industrial, inhalative, Acute - systemic effects, 84 mg/m³
Distillates (petroleum), hydrotreated light paraffinic, CAS: 64742-55-8
Industrial, dermal, Long-term - systemic effects, 0,97 mg/kg bw/day
Industrial, inhalative, Long-term - local effects, 5,58 mg/m³
Industrial, inhalative, Long-term - systemic effects, 2,73 mg/m³
general population, oral, Long-term - systemic effects, 0,74 mg/kg bw/day
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
Industrial, inhalative, Acute - local effects, 5,36 µg/m³
Industrial, inhalative, Long-term - local effects, 600 µg/m³
Industrial, inhalative, Acute - systemic effects, 260 mg/m³
Industrial, inhalative, Long-term - systemic effects, 260 mg/m³
general population, oral, Long-term - systemic effects, 8 mg/kg bw/day
general population, inhalative, Acute - systemic effects, 50 mg/m³
general population, inhalative, Long-term - systemic effects, 50 mg/m³
Bis(1,2,2,6,6-pentamethyl-4-piperidinyl)-[(3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl)-methyl] butylmalonate, CAS: 63843-89-0
Industrial, inhalative, Long-term - systemic effects, 50 µg/m³
Industrial, dermal, Long-term - systemic effects, 70 µg/kg bw/day
general population, inhalative, Long-term - systemic effects, 10 µg/m³

general population, dermal, Long-term - systemic effects, 33 µg/kg bw/day
general population, oral, Long-term - systemic effects, 3 µg/kg bw/day

PNEC

Substance
Reaktionsmasse von N,N'-ethan-1,2-diylbis(hexanamid) und 12-hydroxy-N-(2-((1-oxyhexyl)amino)ethyl)octadecanamid und N,N'-ethan-1,2-diylbis(12-hydroxyoctadecanamid)
oral (food), 222,2 mg/kg
freshwater, 0,009 mg/L
seawater, 0,001 mg/L
sewage treatment plants (STP), 100 mg/L
sediment (freshwater), 384 mg/kg
sediment (seawater), 38,4 mg/kg
soil, 52,1 mg/kg
Trimethoxyvinylsilane, CAS: 2768-02-7
soil, 0.06 mg/kg dw
seawater, 40 µg/L
sediment (seawater), 0,15 mg/kg dw
freshwater, 400 µg/L
sediment (freshwater), 1,5 mg/kg dw
Dioctyltinbis(acetylacetonate), CAS: 54068-28-9
sediment (seawater), 15.5 µg/kg sediment dw
sediment (freshwater), 155 µg/kg sediment dw
sewage treatment plants (STP), 1 mg/L
seawater, 2.6 µg/L
freshwater, 26 µg/L
Distillates (petroleum), hydrotreated light paraffinic, CAS: 64742-55-8
oral (food), 9,33 mg/kg food
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
freshwater, 62 µg/L
sediment (seawater), 22 µg/kg sediment dw
sediment (freshwater), 220 µg/kg sediment dw
seawater, 6,2 µg/L
soil, 8,5 µg/kg soil dw
sewage treatment plants (STP), 25 mg/L
Titanium dioxide (<10µm), CAS: 13463-67-7
oral (food), 1667 mg/kg
soil, 100 mg/kg
sediment (seawater), 100 mg/kg
sediment (freshwater), 1000 mg/kg
sewage treatment plants (STP), 100 mg/l
seawater, 1 mg/l
freshwater, 0,127 mg/l
Bis(1,2,2,6,6-pentamethyl-4-piperidinyl)-[(3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl)-methyl] butylmalonate, CAS: 63843-89-0
sediment (seawater), 50,44 mg/kg sediment dw
sediment (freshwater), 504,4 mg/kg sediment dw
freshwater, 40 ng/L
seawater, 4 ng/L
sewage treatment plants (STP), 1 mg/L

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	safety glasses (EN 166:2001)
Hand protection	0,4 mm Butyl rubber, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Light protective clothing.
Other	Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.
Thermal hazards	No information available.
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	pasty
Color	white
Odor	characteristic
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not applicable
Flash point [°C]	>100
Flammability (solid, gas) [°C]	hardly inflammable
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not applicable
Density [g/cm³]	1,48 (20 °C)
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	insoluble
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	No information available.
Kinematic viscosity	No information available.
Relative vapour density	not applicable
Evaporation speed	not applicable
Melting point [°C]	not applicable
Auto-ignition temperature	not applicable
Decomposition temperature [°C]	No information available.
Particle characteristics	No information available.

9.2 Other information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

See SECTION 10.3.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Strong heating.

10.4 Conditions to avoid

See SECTION 7.2.
Strong heating.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

Product
ATE-mix, oral, Rat, > 2000 mg/kg

Substance
Reaktionsmasse von N,N'-ethan-1,2-diylbis(hexanamid) und 12-hydroxy-N-(2-((1-oxyhexyl)amino)ethyl)octadecanamid und N,N'-ethan-1,2-diylbis(12-hydroxyoctadecanamid)
LD50, oral, Rat, >2000 mg/kg
Trimethoxyvinylsilane, CAS: 2768-02-7
LD50, oral, Rat, 7120 mg/kg (OECD TG 401)
NOAEL, oral, Rat, < 62,5 mg/kg (28 d) (OECD TG 422)
Dioctyltinbis(acetylacetonate), CAS: 54068-28-9
LD50, oral, Rat, 2500 mg/kg bw, OECD 423
Distillates (petroleum), hydrotreated light paraffinic, CAS: 64742-55-8
LD50, oral, Rat, 5000 mg/kg bw
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
LD50, oral, Rat, 2295 mg/kg bw
Titanium dioxide (<10µm), CAS: 13463-67-7
LD50, oral, Rat, > 5000 mg/kg OECD 425
Bis(1,2,2,6,6-pentamethyl-4-piperidinyl)-[(3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl)-methyl] butylmalonate, CAS: 63843-89-0
LD50, oral, Rat, 1490 mg/kg bw
Pyrithione zinc, CAS: 13463-41-7
ATE, oral, 221 mg/kg, ECHA,

Acute dermal toxicity

Product
ATE-mix, dermal, > 2000 mg/kg

Substance
Reaktionsmasse von N,N'-ethan-1,2-diylbis(hexanamid) und 12-hydroxy-N-(2-((1-oxyhexyl)amino)ethyl)octadecanamid und N,N'-ethan-1,2-diylbis(12-hydroxyoctadecanamid)
LD50, dermal, Rat, >2000 mg/kg
Trimethoxyvinylsilane, CAS: 2768-02-7
LD50, dermal, Rabbit, 3259 mg/kg bw
Dioctyltinbis(acetylacetonate), CAS: 54068-28-9
LD50, dermal, Rat, > 2000 mg/kg (OECD 402)
Distillates (petroleum), hydrotreated light paraffinic, CAS: 64742-55-8
LD50, dermal, Rabbit, 2000 - 5000 mg/kg bw
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
LD50, dermal, Rabbit, >2000 mg/kg bw
Titanium dioxide (<10µm), CAS: 13463-67-7
LD50, dermal, Rabbit, > 5000 mg/kg
Bis(1,2,2,6,6-pentamethyl-4-piperidinyl)-[(3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl)-methyl] butylmalonate, CAS: 63843-89-0
LD50, dermal, Rat, 3170 mg/kg bw
Pyrithione zinc, CAS: 13463-41-7

LD50, dermal, Rat, >2000 mg/kg bw

Acute inhalational toxicity

Product
ATE-mix, inhalative, Rat, > 20 mg/l

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
LD50, inhalative, Rat, 16,8 mg/l (4 h) (OECD TG 403)
NOAEL, inhalative, Rat, 0,058 mg/l (98 d)
Distillates (petroleum), hydrotreated light paraffinic, CAS: 64742-55-8
LC50, inhalative, Rat, 2.18 - 5.53 mg/L air, 4h
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
LC50, inhalative, Rat, 1,49 -2,44 mg/L, 4h
Titanium dioxide (<10µm), CAS: 13463-67-7
LC50, inhalativ (dust), Rat, > 6,8 mg/l 4h
Bis(1,2,2,6,6-pentamethyl-4-piperidinyl)-[(3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl)-methyl] butylmalonate, CAS: 63843-89-0
LC50, inhalative, Rat, 460 mg/m³ (4h)
Pyrithione zinc, CAS: 13463-41-7
ATE, inhalativ (dust), 0,14 mg/L, ECHA,

Serious eye damage/irritation Based on the available information, the classification criteria are not fulfilled.

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
Eye, Rabbit, OECD 405, 24h, non-irritating
Dioctyltinbis(acetylacetonate), CAS: 54068-28-9
Eye, Rabbit, OECD 405, non-irritating
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
Rabbit, OECD 405, corrosive

Skin corrosion/irritation Based on the available information, the classification criteria are not fulfilled.

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
dermal, Rabbit, 24h, non-irritating
Dioctyltinbis(acetylacetonate), CAS: 54068-28-9
dermal, Rabbit, OECD 404, non-irritating
Titanium dioxide (<10µm), CAS: 13463-67-7
OECD 404, non-irritating

Respiratory or skin sensitisation Based on the available information, the classification criteria are fulfilled.
May cause an allergic skin reaction.

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
dermal, ECHA, sensitising
Dioctyltinbis(acetylacetonate), CAS: 54068-28-9
dermal, Mouse (female), OECD 429, sensitising
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
dermal, Guinea pig, OECD 406, sensitising

Specific target organ toxicity — single exposure Based on the available information, the classification criteria are not fulfilled.

Substance
Dioctyltinbis(acetylacetonate), CAS: 54068-28-9
LOAEL, oral, Rat, 11,8 ng/kg bw/day, OECD 414, adverse effect observed

Specific target organ toxicity — repeated exposure Based on the available information, the classification criteria are not fulfilled.

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
NOAEL, inhalation (vapour), Rat, 0,058 mg/kg, OECD 413
Dioctyltinbis(acetylacetonate), CAS: 54068-28-9
NOAEL, oral, Rat, 2,5 mg/kg bw/day, OECD 422, adverse effect observed
NOAEC, inhalative, Rat, 100 mg/m³, OECD 413, adverse effect observed
Distillates (petroleum), hydrotreated light paraffinic, CAS: 64742-55-8
LOAEL, oral, Rat, 125 mg/kg bw/day
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
NOAEC, inhalative, Rat, 15 mg/m³, OECD 422

Mutagenicity Based on the available information, the classification criteria are not fulfilled.

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
in vitro, OECD 471, negativ
Dioctyltinbis(acetylacetonate), CAS: 54068-28-9
in vitro, OECD 476, negativ
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
Ames-test, negativ

Reproduction toxicity Based on the available information, the classification criteria are not fulfilled.

Substance
Trimethoxyvinylsilane, CAS: 2768-02-7
Rat, OECD 422, negativ
Dioctyltinbis(acetylacetonate), CAS: 54068-28-9
LOAEL, oral, Rat, 4 mg/kg bw /day, OECD 422, no adverse effect observed
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
NOAEL, oral, Rat, 750 mg/kg bw/day, OECD 422

Carcinogenicity Based on the available information, the classification criteria are not fulfilled.

Substance
Titanium dioxide (<10µm), CAS: 13463-67-7
ECHA, Carc. 2

Aspiration hazard Based on the available information, the classification criteria are not fulfilled.

General remarks

Toxicological data of complete product are not available.

SECTION 12: Ecological information

12.1 Toxicity

Substance
Reaktionsmasse von N,N'-ethan-1,2-diylbis(hexanamid) und 12-hydroxy-N-(2-((1-oxyhexyl)amino)ethyl)octadecanamid und N,N'-ethan-1,2-diylbis(12-hydroxyoctadecanamid)
LC50, (96h), Oncorhynchus mykiss, > 1000 mg/l
EC50, (48h), Daphnia magna, 134 mg/l
Trimethoxyvinylsilane, CAS: 2768-02-7
LC50, (96h), Oncorhynchus mykiss, 191 mg/l
EC50, Pseudokirchneriella subcapitata, 210 mg/l (7 d) (US-EPA)
EC50, (48h), Daphnia magna, 168,7 mg/l (92/69/EWG C.2)
EC10, Pseudomonas putida, 1000 mg/l (5 h)
Dioctyltinbis(acetylacetonate), CAS: 54068-28-9
EC50, (24h), Scenedesmus subspicatus, 300 mg/l (OECD 201)
EC50, (96h), fish, 86 mg/l (OECD 203)
EC50, (48h), Daphnia magna, 58,6 mg/l (OECD 202)
Distillates (petroleum), hydrotreated light paraffinic, CAS: 64742-55-8
NOELR, (14d), fish, 1 g/L
LL50, (96h), fish, 100 mg/L
LL50, (96h), Invertebrates, 10 g/L
N-[3-(Trimethoxysilyl)propyl]ethylenediamine, CAS: 1760-24-3
LC50, (96h), Danio rerio, 597 mg/l (Lit.)
EC50, (48h), Daphnia magna, 81 mg/l (Lit.)
EC50, (16h), Pseudomonas putida, 67 mg/l (Lit.)
IC50, (72h), Algae, 8,8 mg/l (OECD 201)
NOEC, (21d), Daphnia magna, > 1 mg/l (Lit.)
NOEC, (72h), Algae, 3,1 mg/l (OECD 201)
Titanium dioxide (<10µm), CAS: 13463-67-7
LC50, (48h), Daphnia magna, > 100 mg/l
LC50, (96h), Pimephales promelas, > 1000 mg/l
EC50, (72h), Pseudokirchneriella subcapitata, 16 mg/l
Bis(1,2,2,6,6-pentamethyl-4-piperidinyl)-[(3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl)-methyl] butylmalonate, CAS: 63843-89-0
LC50, (96h), fish, > 100 mg/L
EC50, (72h), Algae, 61 mg/L
Pyrithione zinc, CAS: 13463-41-7
LC50, (96h), Brachidanio rerio, 0,0104 mg/l (OECD 203)
EC50, (72h), Pseudokirchneriella subcapitata, 0,051 mg/l (OECD 201)
EC50, (72h), Skeletonema costatum, 0,0013 mg/l (ISO 10253)
EC50, (48h), Daphnia magna, 0,051 mg/l (OECD 202)
NOEC, (96h), Pseudokirchneriella subcapitata, 0,00046 mg/l (ISO 10253)
NOEC, (21d), Daphnia magna, 0,0022 mg/l (OECD 211)
NOEC, (28d), Brachidanio rerio, 0,00125 mg/l (OECD 215)
NOEC, (72h), Pseudokirchneriella subcapitata, 0,0149 mg/l (OECD 201)

12.2 Persistence and degradability

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	No information available.
Biological degradability	No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Does not contain a relevant substance that meets the classification criteria.

12.7 Other adverse effects

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.
Ecotoxicological data are not available.
Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Observe national and local legal requirements.
Coordinate disposal with the disposal contractor/authorities if necessary.

Waste no. (recommended) 080409*

Contaminated packaging

Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended) 150110* packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID	3077
Inland navigation (ADN)	3077
Marine transport in accordance with IMDG	3077
Air transport in accordance with IATA	3077

14.2 UN proper shipping name

Transport by land according to ADR/RID	Environmentally hazardous substance, solid, n.o.s. (Pyrithione zinc)
- Classification Code	M7
- Label	
- ADR LQ	5 kg
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 3 (-)
Inland navigation (ADN)	Environmentally hazardous substance, solid, n.o.s. (Pyrithione zinc)
- Classification Code	M7
- Label	
Marine transport in accordance with IMDG	Environmentally hazardous substance, solid, n.o.s. (Pyrithione zinc)
- EMS	F-A, S-F
- Label	
- IMDG LQ	5 kg
Air transport in accordance with IATA	Environmentally hazardous substance, solid, n.o.s. (Pyrithione zinc)
- Label	

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	9 (N)
Inland navigation (ADN)	9 (N)
Marine transport in accordance with IMDG	9
Air transport in accordance with IATA	9

14.4 Packing group

Transport by land according to ADR/RID	III
Inland navigation (ADN)	III
Marine transport in accordance with IMDG	III
Air transport in accordance with IATA	III

14.5 Environmental hazards

Transport by land according to ADR/RID	yes
Inland navigation (ADN)	yes
Marine transport in accordance with IMDG	MARINE POLLUTANT
Air transport in accordance with IATA	yes

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EC 2000/532/EC); 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	ADR (2021); IMDG-Code (2021, 40. Amdt.); IATA-DGR (2021)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011).
- Observe employment restrictions for people	no
- VOC (2010/75/CE)	3,908 – 3,989 % (58,224 g/l - 59,435 g/l)

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H413 May cause long lasting harmful effects to aquatic life.
H372 Causes damage to organs through prolonged or repeated exposure.
H360D May damage the unborn child.
H330 Fatal if inhaled.
H400 Very toxic to aquatic life.
H301 Toxic if swallowed.
H351 Suspected of causing cancer.
H304 May be fatal if swallowed and enters airways.
H410 Very toxic to aquatic life with long lasting effects.
H372 Causes damage to organs (lymph node) through prolonged or repeated exposure.
H302 Harmful if swallowed.
H371 May cause damage to organs. [Immune system; if swallowed]
H373 May cause damage to the respiratory system through prolonged or repeated exposure through inhalation.
H335 May cause respiratory irritation.
H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H226 Flammable liquid and vapour.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform ChemicaL Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
Aquatic Acute 1: H400 Very toxic to aquatic life. (Calculation method)
Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Modified position

SECTION 3 been added: Reaktionsmasse von N,N'-ethan-1,2-diylbis(hexanamid) und 12-hydroxy-N-(2-((1-oxyhexyl)amino)ethyl)octadecanamid und N,N'-ethan-1,2-diylbis(12-hydroxyoctadecanamid)

SECTION 2 been added: Dioctyltinbis(acetylacetonate)

SECTION 2 been added: N-[3-(Trimethoxysilyl)propyl]ethylenediamine

SECTION 2 been added: Trimethoxyvinylsilane

SECTION 3 been added: Titanium dioxide (<10µm)

SECTION 3 been added: Distillates (petroleum), hydrotreated light paraffinic

SECTION 2 been added: P362+P364 Take off contaminated clothing and wash it before reuse.

SECTION 2 been added: Contains no ingredients with endocrine-disrupting properties.

SECTION 2 been added: EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

SECTION 2 been added: Skin Sens. 1

SECTION 2 been added: P391 Collect spillage.

SECTION 2 been added: P261 Avoid breathing dust.

SECTION 2 been added: P333+P313 If skin irritation or rash occurs: Get medical advice / attention.

SECTION 2 been added: environment

SECTION 2 been added: H400 Very toxic to aquatic life.

SECTION 2 been added: WARNING

SECTION 2 been added: H317 May cause an allergic skin reaction.

SECTION 2 been added: P280 Wear protective gloves.

SECTION 2 been added: Aquatic Acute 1

SECTION 2 been added: exclamation mark

SECTION 4 deleted: Consult a doctor if skin irritation persists.

SECTION 4 been added: If skin irritation or rash occurs: Get medical advice/attention.

SECTION 5 been added: Collect contaminated firefighting water separately, must not be discharged into the drains.

SECTION 6 been added: Use personal protective equipment.

SECTION 6 been added: Avoid release to the environment.

SECTION 8 deleted: Not required under normal conditions.

SECTION 8 been added: In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.

SECTION 9 deleted:

SECTION 9 deleted:

SECTION 11 been added: Based on the available information, the classification criteria are fulfilled.

SECTION 11 deleted:

SECTION 11 deleted: No classification due to substance-specific concentration limits.

SECTION 11 been added: May cause an allergic skin reaction.

SECTION 11 deleted: Based on the available information, the classification criteria are not fulfilled.

SECTION 12 been added: Does not contain a relevant substance that meets the classification criteria.

SECTION 14 deleted: no dangerous goods

SECTION 14 been added: Environmentally hazardous substance, solid, n.o.s. (Pyrithione zinc)

SECTION 14 deleted: not classified as "Dangerous Goods"

SECTION 14 been added: Environmentally hazardous substance, solid, n.o.s. (Pyrithione zinc)

SECTION 14 deleted: not classified as "Dangerous Goods"

SECTION 14 been added: Environmentally hazardous substance, solid, n.o.s. (Pyrithione zinc)

SECTION 16 deleted:

SECTION 16 been added: Calculation method

SECTION 16 been added: Calculation method