Parasilico Standard LMN T

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Revision date: 17/02/2023 Supersedes version of: 25/11/2022 Version: 2.0

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

1.1. Product identifier

Product form : Mixture
Trade name : Parasilico Standard LMN T

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

1.2.1. Relevant identified uses

Main use category : Professional use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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Roterijstraat 201-203
B-8793 Waregem
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MSDS@dl-chem.com - www.dl-chem.com

1.4. Emergency telephone number

Emergency number : + 32 56 62 70 51
Only available during office hours.

Country	Official advisory body	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Carcinogenicity, Category 1B H350
Contains 3-aminopropyltriethoxysilane, N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine, 2-butanone oxime, Methyl-tris(methylethylketoximo)silane, 3-(2-aminoethylamino)propyltrimethoxysilane. May produce an allergic reaction. EUH208
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS08

CLP Signal word : Danger

Contains : 2-butanone oxime

Hazard statements (CLP) : H350 - May cause cancer.

Precautionary statements (CLP) : P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe vapours.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P284 - Wear respiratory protection.
P308+P313 - IF exposed or concerned: Get medical advice/attention.

EUH-statements : EUH208 - Contains 3-aminopropyltriethoxysilane, N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine, 2-butanone oxime, Methyl-tris(methylethylketoximo)silane, 3-(2-aminoethylamino)propyltrimethoxysilane. May produce an allergic reaction.

Extra phrases : Restricted to professional users.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Methyl-tris(methylethylketoximo)silane (22984-54-9)	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
N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine (35141-30-1)	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
methanol (67-56-1)	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 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC-No.: 919-029-3 REACH-no: 01-2119457735-29	≥ 10 – < 25	Asp. Tox. 1, H304
2-Pentanone, O,O',O''-(methylsilylidyne)trioxime	CAS-No.: 37859-55-5 EC Index-No.: 484-460-1 REACH-no: 01-2120004323-76	< 2,5	Acute Tox. 4 (Oral), H302 (ATE=1133 mg/kg bodyweight) Eye Irrit. 2, H319 STOT RE 2, H373
Methyl-tris(methylethylketoximo)silane	CAS-No.: 22984-54-9 EC-No.: 245-366-4 REACH-no: 01-2119987100-43	≥ 1 – < 2,5	Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT RE 2, H373
3-aminopropyltriethoxysilane	CAS-No.: 919-30-2 EC-No.: 213-048-4 EC Index-No.: 612-108-00-0 REACH-no: 01-2119480479-24	≥ 0,5 – < 1	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317
2-butanone oxime	CAS-No.: 96-29-7 EC-No.: 202-496-6 EC Index-No.: 616-014-00-0 REACH-no: 01-2119539477-28	≥ 0,1 – < 1	Carc. 1B, H350 Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 3 (Oral), H301 (ATE=100 mg/kg bodyweight) STOT SE 3, H336 STOT SE 1, H370 STOT RE 2, H373 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
3-(2-aminoethylamino)propyltrimethoxysilane	CAS-No.: 1760-24-3 EC-No.: 217-164-6 REACH-no: 01-2119970215-39	≥ 0,1 – < 0,5	Eye Dam. 1, H318 Skin Sens. 1B, H317
N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine	CAS-No.: 35141-30-1 EC-No.: 252-390-9	≥ 0,1 – < 0,5	Eye Dam. 1, H318 Skin Sens. 1, H317

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
methanol substance with a Community workplace exposure limit	CAS-No.: 67-56-1 EC-No.: 200-659-6 EC Index-No.: 603-001-00-X REACH-no: 01-2119433307-44	< 0,1	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 (ATE=100 mg/kg bodyweight) Acute Tox. 3 (Dermal), H311 (ATE=300 mg/kg bodyweight) Acute Tox. 3 (Inhalation), H331 (ATE=0,5 mg/l/4h) STOT SE 1, H370

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits**
Methyl-tris(methylethylketoximo)silane	CAS-No.: 22984-54-9 EC-No.: 245-366-4 REACH-no: 01-2119987100-43	(3,755 ≤C < 100) Skin Sens. 1, H317
methanol	CAS-No.: 67-56-1 EC-No.: 200-659-6 EC Index-No.: 603-001-00-X REACH-no: 01-2119433307-44	(3 ≤C < 10) STOT SE 2, H371 (10 ≤C < 100) STOT SE 1, H370

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Move to fresh air. Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Wash skin with mild soap and water. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : If eye irritation persists: Get medical advice/attention. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects : May cause cancer.

Symptoms/effects after inhalation : Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

Symptoms/effects after skin contact : Not expected to present a significant skin hazard under anticipated conditions of normal use.

Symptoms/effects after eye contact : Not expected to present a significant eye contact hazard under anticipated conditions of normal use.

Symptoms/effects after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : All extinguishing media allowed. Use extinguishing media appropriate for surrounding fire. Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : None known. Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No fire hazard.

5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire. Evacuate unnecessary personnel.

Firefighting instructions : Cool down the containers exposed to heat with a water spray. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ensure adequate air ventilation. Spills of this product present a serious slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip rescue crew with proper protection. Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13. See Section 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not eat and do not drink during use. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Handling temperature : 5 – 40 °C

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store tightly closed in a dry and cool place. Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : 5 – 25 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

methanol (67-56-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Methanol
IOEL TWA	260 mg/m³
IOEL TWA [ppm]	200 ppm
Remark	Skin
	Skin
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
Ireland - Occupational Exposure Limits	
OEL STEL	260 mg/m³
OEL STEL [ppm]	200 ppm
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	266 mg/m³
WEL TWA (OEL TWA) [2]	200 ppm
WEL STEL (OEL STEL)	333 mg/m³

methanol (67-56-1)	
WEL STEL (OEL STEL) [ppm]	250 ppm

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

No additional information available

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 work station.

8.2.2. Personal protection equipment

Personal protective equipment:
Avoid all unnecessary exposure.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Chemical goggles or safety glasses

8.2.2.2. Skin protection

Skin and body protection:
Protective clothing

Hand protection:
Wear protective gloves. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Hand protection					
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**	**Standard**
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)	> 0,3		EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:
Ensure there is adequate ventilation. Air-fed respiratory protective equipment should be worn when this product is sprayed if the exposure of the sprayer or other people nearby cannot be controlled to below the occupational exposure limit

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Do not allow to enter drains or water courses.

Consumer exposure controls:
Do not eat, drink or smoke during work.

Other information:
Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	white. Transparent.
Appearance	:	Pasty.
Odour	:	characteristic.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not applicable
Softening point	:	Does not apply
Boiling point	:	Not applicable
Flammability	:	Non flammable.
Explosive properties	:	Product is not explosive.
Oxidising properties	:	Non oxidizing material according to EC criteria.
Explosive limits	:	Not available
Lower explosion limit	:	Not applicable.
Upper explosion limit	:	Not applicable
Flash point	:	> 100 °C (ISO 3679)
Auto-ignition temperature	:	> 200 °C (calculated value)
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	7670,103 mm²/s
Viscosity, dynamic	:	7440 mPa.s (Brookfield spindle 96, 1 rpm)
Non-Newtonian liquid	:	Thixotropic behaviour
Solubility	:	Water: Insoluble
Partition coefficient n-octanol/water (Log Kow)	:	Not applicable for preparations
Partition coefficient n-octanol/water (Log Pow)	:	Not applicable for preparations
Vapour pressure	:	Not applicable.
Vapour pressure at 50°C	:	Not applicable.
Density	:	0,97 g/ml
Relative density	:	0,97
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

methanol	
Boiling point	64,7 °C Atm. press.: 1013 hPa
Flash point	9,7 °C Atm. press.: 1013 hPa
Auto-ignition temperature	455 °C
Vapour pressure	169,27 hPa Temp.: 25 °C

3-aminopropyltriethoxysilane	
Vapour pressure	1,7 – 2 Pa

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Boiling point	260 – 340 °C
Flash point	125 – 137 °C
Auto-ignition temperature	200 – 223 °C
Vapour pressure	1 hPa(a)

N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine	
Vapour pressure	0,015 Pa

2-butanone oxime	
Boiling point	> 152 °C Atm. press.: 113 atm Decomposition: 'no'
Flash point	≈ 61,97 °C Remarks on result: 'other:'
Auto-ignition temperature	314 – 317 °C
Vapour pressure	≈ 1,07 kPa Temp.: 20 °C

Methyl-tris(methylethylketoximo)silane	
Boiling point	Decomposes before boiling
Flash point	106,7 °C Atm. press.: 101,3 kPa
Auto-ignition temperature	310 °C
Vapour pressure	0,085 Pa Temp.: 25 °C

2-Pentanone, O,O',O''-(methylsilylidyne)trioxime	
Flash point	82 °C
Auto-ignition temperature	285 °C
Vapour pressure	0,0172 hPa at 20 °C

3-(2-aminoethylamino)propyltrimethoxysilane	
Boiling point	140 °C
Flash point	120 °C Atm. press.: 1013 hPa
Vapour pressure	0,4 Pa at 20 °C

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : < 100 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal use.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use. Not established.

10.3. Possibility of hazardous reactions

None under normal use. Not established.

10.4. Conditions to avoid

None under normal use. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Additional hazards when processed. release of (highly) toxic gases/vapours. Methanol. 2 Butanon-oxim . fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

methanol (67-56-1)	
LD50 oral rat	1187 – 2769 mg/kg bodyweight Animal: rat
LD50 oral	1187 – 2769 mg/kg
LD50 dermal rat	300 mg/kg
LD50 dermal rabbit	15800 – 17100 mg/kg
LC50 Inhalation - Rat	128,2 mg/l/4h
LC50 Inhalation - Rat [ppm]	64000 ppm/4h
LC50 Inhalation - Rat (Vapours)	128,2 mg/l/4h

3-aminopropyltriethoxysilane (919-30-2)	
LD50 oral rat	2,83 ml/kg male
LC50 Inhalation - Rat [ppm]	> 5 ppm male

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics	
LD50 oral rat	5000 mg/kg
LC50 Inhalation - Rat	5266 – 5991 mg/l

N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine (35141-30-1)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	1,49 mg/l/4h

2-butanone oxime (96-29-7)	
LD50 oral rat	3680 mg/kg
LD50 dermal rat	920 mg/kg
LD50 dermal rabbit	> 1000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 4,83 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 Inhalation - Rat (Vapours)	> 4,8 mg/l/4h

Methyl-tris(methylethylketoximo)silane (22984-54-9)	
LD50 oral rat	2463 mg/kg (OECD 401 method)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

2-Pentanone, O,O',O''-(methylsilylidyne)trioxime (37859-55-5)	
LD50 oral rat	1133 – 1234 mg/kg

3-(2-aminoethylamino)propyltrimethoxysilane (1760-24-3)	
LD50 oral rat	2295 mg/kg
LD50 dermal rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity), Remarks on results: other:
LC50 Inhalation - Rat	1,49 – 2,44 mg/l air Animal: rat, Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity), Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation : Not classified
Additional information : Based on available data, the classification criteria are not met
Serious eye damage/irritation : Not classified
Additional information : Based on available data, the classification criteria are not met
Respiratory or skin sensitisation : Not classified
Additional information : Based on available data, the classification criteria are not met
Germ cell mutagenicity : Not classified
Additional information : Based on available data, the classification criteria are not met
Carcinogenicity : May cause cancer.

3-aminopropyltriethoxysilane (919-30-2)	
NOAEL (chronic, oral, animal/male, 2 years)	> 43,8 mg/kg bodyweight

Reproductive toxicity : Not classified
Additional information : Based on available data, the classification criteria are not met

methanol (67-56-1)	
NOAEL (animal/male, F0/P)	< 1000 mg/kg bodyweight Animal: mouse, Animal sex: male

Methyl-tris(methylethylketoximo)silane (22984-54-9)	
NOAEL (animal/male, F0/P)	≥ 250 mg/kg (OECD 422 method)

Methyl-tris(methylethylketoximo)silane (22984-54-9)	
NOAEL (animal/female, F0/P)	≥ 250 mg/kg (OECD 422 method)

STOT-single exposure : Not classified
Additional information : Based on available data, the classification criteria are not met

2-butanone oxime (96-29-7)	
STOT-single exposure	May cause drowsiness or dizziness. Causes damage to organs (upper respiratory tract).

STOT-repeated exposure : Not classified
Additional information : Based on available data, the classification criteria are not met

3-aminopropyltriethoxysilane (919-30-2)	
LOAEL (oral, rat, 90 days)	600 mg/kg bodyweight/day
NOAEL (subchronic, oral, animal/male, 90 days)	200 mg/kg bodyweight

N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine (35141-30-1)	
NOAEL (oral, rat, 90 days)	500 mg/kg bodyweight/day

2-butanone oxime (96-29-7)	
LOAEL (oral, rat, 90 days)	40 mg/kg bodyweight Animal: rat, Guideline: other:
NOAEC (inhalation, rat, vapour, 90 days)	0,09 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
NOAEL (subchronic, oral, animal/male, 90 days)	110 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs (blood) through prolonged or repeated exposure.

Methyl-tris(methylethylketoximo)silane (22984-54-9)	
LOAEL (oral, rat, 90 days)	50 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (oral, rat, 90 days)	10 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (subacute, oral, animal/male, 28 days)	10 mg/kg bodyweight (OECD 422 method)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

2-Pentanone, O,O',O''-(methylsilylidyne)trioxime (37859-55-5)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

3-(2-aminoethylamino)propyltrimethoxysilane (1760-24-3)	
NOAEL (oral, rat, 90 days)	≥ 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (dermal, rat/rabbit, 90 days)	≥ 1545 mg/kg bodyweight Animal: rat

Aspiration hazard : Not classified
Additional information : Based on available data, the classification criteria are not met

Parasilico Standard LMN T	
Viscosity, kinematic	7670,103 mm²/s

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Viscosity, kinematic	6,4 – 7,96 mm²/s

Methyl-tris(methylethylketoximo)silane (22984-54-9)	
Viscosity, kinematic	8,99 mm²/s Temp.: 'other:77.0°F' Parameter: 'cStcSt'

2-Pentanone, O,O',O''-(methylsilylidyne)trioxime (37859-55-5)	
Viscosity, kinematic	16,1 mm²/s at 20 °C

3-(2-aminoethylamino)propyltrimethoxysilane (1760-24-3)	
Viscosity, kinematic	3,1 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2. Other information

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

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

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

methanol (67-56-1)	
LC50 - Fish [1]	15400 mg/l Test organisms (species): Lepomis macrochirus
EC50 - Crustacea [1]	18260 mg/l (OECD 202 method)
EC50 96h - Algae [1]	≈ 22000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	22000 mg/l Pseudokirchneriella subcapitata
ErC50 algae	16912 mg/l ulva pertusa
NOEC (chronic)	208 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	7900 mg/l Oryzias latipes

3-aminopropyltriethoxysilane (919-30-2)	
LC50 - Fish [1]	> 100 mg/l Brachydanio rerio (zebra-fish)
EC50 - Crustacea [1]	> 100 mg/l Daphnia magna (Big water flea)
EC50 72h - Algae [1]	> 100 mg/l Pseudokirchneriella subcapitata
NOEC chronic algae	72h 1,3 mg/l Desmodesmus subspicatus.

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics	
LC50 - Fish [1]	1028 – 87556 g/l
EC50 - Crustacea [1]	1 – 3193 g/l

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics	
EC50 72h - Algae [1]	1 – 10 mg/l
NOEC chronic fish	1 g/l
NOEC chronic crustacea	5 mg/l

N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine (35141-30-1)	
LC50 - Fish [1]	597 (OECD 203 method)
EC50 - Crustacea [1]	81 mg/l (OECD 202 method)
EC50 72h - Algae [1]	126 mg/l Test method EU C.3
NOEC chronic crustacea	> 1 mg/l (OECD 211 method)

2-butanone oxime (96-29-7)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oryzias latipes
EC50 - Crustacea [1]	≈ 201 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	≈ 11,8 mg/l Test organisms (species): Scenedesmus capricornutum
EC50 72h - Algae [2]	≈ 6,09 mg/l Test organisms (species): Scenedesmus capricornutum
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Methyl-tris(methylethylketoximo)silane (22984-54-9)	
LC50 - Fish [1]	> 120 mg/l Oncorhynchus mykiss (Rainbow trout)
LC50 - Fish [2]	972,34 mg/l (OECD 203 method)
EC50 - Crustacea [1]	> 120 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	94 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	50 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	72h 94 mg/l Pseudokirchneriella subcapitata
LOEC (chronic)	> 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (acute)	57,67 mg/l (OECD 204 method)
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 100 mg/l Test organisms (species): Oryzias latipes Duration: '14 d'

3-(2-aminoethylamino)propyltrimethoxysilane (1760-24-3)	
LC50 - Fish [1]	597 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	81 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	126 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	352 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

Parasilico Standard LMN T	
Persistence and degradability	Not established.
methanol (67-56-1)	
Persistence and degradability	Readily biodegradable.
3-aminopropyltriethoxysilane (919-30-2)	
Persistence and degradability	Not readily biodegradable. Hydrolysis in water.
Biodegradation	28d 67 % (OECD 301A method)
Methyl-tris(methylethylketoximo)silane (22984-54-9)	
Biodegradation	28d 0 % (OECD 301A method)

12.3. Bioaccumulative potential

Parasilico Standard LMN T	
Partition coefficient n-octanol/water (Log Pow)	Not applicable for preparations
Partition coefficient n-octanol/water (Log Kow)	Not applicable for preparations
Bioaccumulative potential	Not established.
methanol (67-56-1)	
Bioconcentration factor (BCF REACH)	< 10
Partition coefficient n-octanol/water (Log Pow)	-0,77
Bioaccumulative potential	Low bioaccumulation potential.
3-aminopropyltriethoxysilane (919-30-2)	
Bioconcentration factor (BCF REACH)	3,4 Cyprinus carpio (Common Carp)
Bioaccumulative potential	not bioaccumulative.
2-butanone oxime (96-29-7)	
Bioconcentration factor (BCF REACH)	0,65
Partition coefficient n-octanol/water (Log Pow)	0,63
Methyl-tris(methylethylketoximo)silane (22984-54-9)	
Partition coefficient n-octanol/water (Log Pow)	9,83
2-Pentanone, O,O',O''-(methylsilylidyne)trioxime (37859-55-5)	
Partition coefficient n-octanol/water (Log Pow)	1,25

12.4. Mobility in soil

2-butanone oxime (96-29-7)	
Surface tension	30,29 mN/m at 16°C
Methyl-tris(methylethylketoximo)silane (22984-54-9)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	5,481 EPA (Environmental Protection Agency)

2-Pentanone, O,O',O''-(methylsilylidyne)trioxime (37859-55-5)	
Surface tension	69,5 mN/m

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose in a safe manner in accordance with local/national regulations.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials : Avoid release to the environment.

European List of Waste (LoW) code : 08 04 10 - waste adhesives and sealants other than those mentioned in 08 04 09
08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances

SECTION 14: Transport information

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

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

14.6. Special precautions for user

Overland transport
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

Inland waterway transport
Not applicable

Rail transport
Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
28.	2-butanone oxime	Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively.

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

VOC Directive (2004/42)

VOC content : < 100 g/l

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 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

For the following substances of this mixture a chemical safety assessment has been carried out:
methanol

SECTION 16: Other information

Indication of changes:
Physical and chemical properties. Regulatory information.

Abbreviations and acronyms:	
CAS-No.	Chemical Abstract Service number
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical oxygen demand (BOD)
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
IATA	International Air Transport Association
IOELV	Indicative Occupational Exposure Limit Value
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
OECD	Organisation for Economic Co-operation and Development
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
SDS	Safety Data Sheet
VOC	Volatile Organic Compounds

Abbreviations and acronyms:	
vPvB	Very Persistent and Very Bioaccumulative

Data sources : ECHA (European Chemicals Agency). Supplier's safety documents. REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Other information : None.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 1B	Carcinogenicity, Category 1B
EUH208	Contains 3-aminopropyltriethoxysilane, N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine, 2-butanone oxime, Methyl-tris(methylethylketoximo)silane, 3-(2-aminoethylamino)propyltrimethoxysilane. May produce an allergic reaction.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
H370	Causes damage to organs.
H371	May cause damage to organs.

Full text of H- and EUH-statements:	
H373	May cause damage to organs through prolonged or repeated exposure.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 1	Specific target organ toxicity – single exposure, Category 1
STOT SE 2	Specific target organ toxicity – Single exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Carc. 1B	H350	Calculation method
EUH208	EUH208	Calculation method

SDS EU DL Chemicals

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.