

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Trade name : Forsaseal Lead

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

DL CHEMICALS
Roterijstraat 201-203
B-8793 Waregem - Belgium
T + 32 56 62 70 51 - F + 32 56 60 95 68
info@dl-chem.com - www.dl-chem.com

1.4. Emergency telephone number

Emergency number : + 32 70 245 245

Country	Official advisory body	Address	Emergency number	Comment
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]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

EUH-statements : EUH208 - Contains Methyl tris-(methyl ethyl ketoximo) silane, 3-(2-aminoethylamino)propyltrimethoxysilane, 3-aminopropyltriethoxysilane. May produce an allergic reaction.
EUH210 - Safety data sheet available on request.

2.3. Other hazards

Contains PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

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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	(CAS-No.) 64742-88-7 (EC-No.) 919-029-3 (REACH-no) 01-2119457735-29	10 - 25	Asp. Tox. 1, H304
Methyl tris-(methyl ethyl ketoximo) silane	(CAS-No.) 22984-54-9 (EC-No.) 245-366-4 (REACH-no) 01-2119987100-43	1 - 5	Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT RE 2, H373
Dodecamethylcyclohexasiloxaan substance listed as REACH Candidate (Dodecamethylcyclohexasiloxane (D6)) PBT substance vPvB substance	(CAS-No.) 540-97-6 (EC-No.) 208-762-8	0,1 - 1	Not classified

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Methyl tris-(methyl ethyl ketoximo) silane	(CAS-No.) 22984-54-9 (EC-No.) 245-366-4 (REACH-no) 01-2119987100-43	(3,755 =<C < 100) Skin Sens. 1, H317

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Move to fresh air.
First-aid measures after skin contact	: Wash skin with mild soap and water.
First-aid measures after eye contact	: If eye irritation persists: Get medical advice/attention. Rinse immediately with plenty of water.
First-aid measures after ingestion	: Rinse mouth.

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

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.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: No fire hazard.
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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.
Protection during firefighting	: Wear a self contained breathing apparatus.
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.
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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.

6.2. Environmental precautions

Avoid release to the environment.

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.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not eat and do not drink during use.

Handling temperature : 5 - 40 °C

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store tightly closed in a dry and cool place.

Maximum storage period : 12 months

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

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Eyewash bottle with clean water.

Hand protection:

In case of repeated or prolonged contact wear gloves. Time of penetration is to be checked with the glove producer. 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

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

Eye protection:

Type	Use	Characteristics	Standard
Safety glasses		With side shields	EN 166

Skin and body protection:

No special clothing/skin protection equipment is recommended under normal conditions of use

Respiratory protection:

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. Ensure there is adequate ventilation



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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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Pasty.
Colour	: According to product specification.
Odour	: characteristic.
Relative density	: 1,351
Density	: 1,38 g/ml
Solubility	: Water: Insoluble

9.2. Other information

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.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

None under normal use.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Methyl tris-(methyl ethyl ketoximo) silane (22984-54-9)	
LD50 oral rat	2463 mg/kg (OECD 401 method)
LD50 dermal rat	> 2000 mg/kg (OECD 402 method)

Polydimethylsiloxaan (63148-62-9)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2008 mg/kg

Calcium/ Magnesium Carbonate (16389-88-1)	
LD50 oral rat	> 5000 mg/kg

Pyrogenic micro-dispersed silica, synthetic X-ray amorphous silicon dioxide (112945-52-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	5000 mg/kg
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 0,139 mg/l/4h

Dodecamethylcyclhexasiloxaan (540-97-6)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics (64742-88-7)	
LD50 oral rat	5000 mg/kg (OECD 401 method)
LD50 dermal rabbit	3160 mg/kg (OECD 402 method)

Skin corrosion/irritation : Not classified
 Serious eye damage/irritation : Not classified
 Respiratory or skin sensitisation : Not classified
 Germ cell mutagenicity : Not classified
 Carcinogenicity : Not classified
 Reproductive toxicity : Not classified

Methyl tris-(methyl ethyl ketoximo) silane (22984-54-9)	
NOAEL (animal/male, F0/P)	>= 250 mg/kg (OECD 422 method)
NOAEL (animal/female, F0/P)	>= 250 mg/kg (OECD 422 method)

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics (64742-88-7)	
NOAEL (animal/male, F0/P)	> 1000 mg/kg (OECD 415 method)
NOAEL (animal/male, F1)	> 1000 mg/kg (OECD 414 method)

STOT-single exposure : Not classified
 STOT-repeated exposure : Not classified

Methyl tris-(methyl ethyl ketoximo) silane (22984-54-9)	
LOAEL (oral, rat, 90 days)	50 mg/kg bodyweight/day
NOAEL (subacute, oral, animal/male, 28 days)	10 mg/kg bodyweight (OECD 422 method)

Dodecamethylcyclhexasiloxaan (540-97-6)	
LOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight/day
LOAEC (inhalation, rat, gas, 90 days)	10 ppmv/6h/day

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics (64742-88-7)	
NOAEL (oral, rat, 90 days)	> 5000 mg/kg bodyweight/day (OECD 408 method)

Aspiration hazard : Not classified

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SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified
Chronic aquatic toxicity : Not classified

Methyl tris-(methyl ethyl ketoximo) 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 Daphnia 1	231,84 mg/l (OECD 202 method)
EC50 72h algae (1)	18,45 mg/l (OECD 201 method)
ErC50 (algae)	72h 94 mg/l Pseudokirchneriella subcapitata
NOEC (acute)	57,67 mg/l (OECD 204 method)
NOEC (chronic)	>= 115,34 mg/l (OECD 211 method)
NOEC chronic fish	57,67 mg/l

Pyrogenic micro-dispersed silica, synthetic X-ray amorphous silicon dioxide (112945-52-5)	
LC50 fish 1	> 10000 mg/l Brachydanio rerio (zebra-fish)
EC50 Daphnia 1	> 10000 mg/l

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics (64742-88-7)	
LC50 fish 1	> 1028 mg/l (OECD 203 method)
EC50 Daphnia 1	> 3000 mg/l
EC50 72h algae (1)	> 10000 mg/l
NOEC chronic fish	> 1000 mg/l
NOEC chronic crustacea	1000 mg/l

12.2. Persistence and degradability

Methyl tris-(methyl ethyl ketoximo) silane (22984-54-9)	
Biodegradation	28d 0 % (OECD 301A method)

Dodecamethylcyclhexasiloxaan (540-97-6)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	4,5 % (OECD 310 method)

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics (64742-88-7)	
Persistence and degradability	Readily biodegradable.
Biodegradation	74 % (OECD 306 method)

12.3. Bioaccumulative potential

Methyl tris-(methyl ethyl ketoximo) silane (22984-54-9)	
Log Pow	9,83

Dodecamethylcyclhexasiloxaan (540-97-6)	
Log Pow	8,87
Log Kow	8

12.4. Mobility in soil

Methyl tris-(methyl ethyl ketoximo) silane (22984-54-9)	
Log Koc	5,481 EPA (Environmental Protection Agency)

Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics (64742-88-7)	
Surface tension	28 mN/m at 25 °C

12.5. Results of PBT and vPvB assessment

Component	
Methyl tris-(methyl ethyl ketoximo) 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
Dodecamethylcyclhexasiloxaan (540-97-6)	This substance/mixture meets the PBT criteria of REACH regulation, annex XIII This substance/mixture meets the vPvB criteria of REACH regulation, annex XIII
Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics (64742-88-7)	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

12.6. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

ADR

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

No supplementary information available

14.6. Special precautions for user

- Overland transport

Not applicable

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

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

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:	
3(b) 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	Methyl tris-(methyl ethyl ketoximo) silane - Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics
3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Methyl tris-(methyl ethyl ketoximo) silane - Hydrocarbons, C16-C20, n-alkanes, isoalkanes, cyclics, <2% aromatics

Contains a substance on the REACH candidate list in concentration 0.1% or with a lower specific limit:
Dodecamethylcyclohexasiloxane (D6) (EC 208-762-8, CAS 540-97-6)

Contains no REACH Annex XIV substances

VOC content : < 100 g/l

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

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SECTION 16: Other information

Full text of H- and EUH-statements:

Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH208	Contains Methyl tris-(methyl ethyl ketoximo) silane, 3-(2-aminoethylamino)propyltrimethoxysilane, 3-aminopropyltriethoxysilane. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

MSDS Reach Annex II DL-Chem

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.