

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

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

1.1. Product identifier

Trade name/designation:

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

Use of the substance/mixture:

Impregnation agent

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Modern concrete solutions d.o.o. Štihova ulica 10

1000 Ljubljana

Slovenia

Telephone: +386 40 655 235 E-mail:

info@linolit.com

Website: www.linolit.com

1.4. Emergency telephone number

24h: +86 40 655 235

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation (<i>Skin Irrit. 2</i>)	H315: Causes skin irritation.	
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	

2.2. Label elements

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

Hazard pictograms:



GHS07

Exclamation mark

Signal word: Warning

Hazard components for labelling:

potassium methylsilanetriolate; lithium hydroxide; Silicic acid, potassium salt

hazard statements for health hazards	
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Supplemental Hazard information (EU): -

Precautionary statements Prevention	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

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Precautionary statements Response

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/attention.

2.3. Other hazards

No data available

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 1312-76-1 EC No.: 215-199-1	Silicic acid, potassium salt Eye Irrit. 2, STOT SE 3, Skin Irrit. 2 H315-H319-H335	< 20 Wt %
CAS No.: 31795-24-1 EC No.: 250-807-9 REACH No.: 01-2119517439-34-0000	potassium methylsilanetriolate Eye Dam. 1, Skin Corr. 1A Danger H314-H318	< 5 Wt %
CAS No.: 1310-66-3	lithium hydroxide Acute Tox. 4, Eye Dam. 1, Skin Corr. 1A Danger H302-H314	< 1 Wt %

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.

After eye contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion:

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Rinse mouth. Let water be drunk in little sips (dilution effect). Get medical advice/attention if you feel unwell.

Self-protection of the first aider:

Use personal protection equipment.

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

Skin corrosion/irritation. Serious eye damage/eye irritation.

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media:

Full water jet

5.2. Special hazards arising from the substance or mixture

Pyrolysis products, toxic The product itself does not burn.

Hazardous combustion products:

Nitrogen oxides (NOx), Carbon dioxide (CO₂), Carbon monoxide In case of fire: Gases/vapours, toxic

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Dispose of waste according to applicable legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Remove persons to safety. Special danger of slipping by leaking/spilling product. Provide adequate ventilation.

Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up:

Wipe up with absorbent material (eg. cloth, fleece). Wash with plenty of water.

Other information:

Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7. Personal protection equipment: see section 8. Disposal: see section 13.

6.5. Additional information

Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Wear personal protection equipment (refer to section 8).

Fire prevent measures:

Usual measures for fire prevention. No special measures are necessary.

Measures to prevent aerosol and dust generation:

Use only in well-ventilated areas.

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Environmental precautions:

Do not allow to enter into surface water or drains.

Advices on general occupational hygiene

Wash hands before breaks and after work. Use protective skin cream before handling the product. When using do not eat, drink or smoke. Avoid contact with eyes and skin.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Packaging materials:

Keep/Store only in original container.

Requirements for storage rooms and vessels:

The floor should be leak tight, jointless and not absorbent.

Hints on storage assembly:

Do not store together with: Food and feedingstuffs

Storage class: 12 - non-combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions:

Protect containers against damage. Keep away from heat.

7.3. Specific end use(s)

Recommendation:

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
WEL (GB)	silicon dioxide CAS No.: 112926-00-8	① 2.4 mg/m ³ ⑤ (Silica, amorphous; respirable fraction)
WEL (GB)	silicon dioxide CAS No.: 112926-00-8	① 6 mg/m ³ ⑤ (Silica, amorphous; inhalable fraction)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
Silicic acid, potassium salt CAS No.: 1312-76-1	1.38 mg/m ³	① DNEL Consumer ② inhalative, long-term, systemic
Silicic acid, potassium salt CAS No.: 1312-76-1	5.61 mg/kg bw/day	① DNEL worker ② inhalative, long-term, local
Silicic acid, potassium salt CAS No.: 1312-76-1	0.74 mg/m ³	① DNEL Consumer ② dermal, long-term, systemic
Silicic acid, potassium salt CAS No.: 1312-76-1	1.49 mg/kg bw/day	① DNEL worker ② dermal, long-term, local
Silicic acid, potassium salt CAS No.: 1312-76-1	0.74 mg/kg bw/day	① DNEL Consumer ② oral, long-term, systemic

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Substance name	DNEL value	① DNEL type ② Exposure route
potassium methylsilanetriolate CAS No.: 31795-24-1	47 mg/m ³	① DNEL worker ② inhalative, long-term, systemic
potassium methylsilanetriolate CAS No.: 31795-24-1	10 mg/m ³	① DNEL Consumer ② inhalative, long-term, systemic
potassium methylsilanetriolate CAS No.: 31795-24-1	47 mg/m ³	① DNEL worker ② inhalative, short-term, systemic, (acute)
potassium methylsilanetriolate CAS No.: 31795-24-1	10 mg/m ³	① DNEL Consumer ② inhalative, short-term, systemic, (acute)
potassium methylsilanetriolate CAS No.: 31795-24-1	6.6 mg/kg bw/day	① DNEL worker ② dermal, long-term, systemic
potassium methylsilanetriolate CAS No.: 31795-24-1	4 mg/kg bw/ day	① DNEL Consumer ② dermal, long-term, systemic
potassium methylsilanetriolate CAS No.: 31795-24-1	6.6 mg/kg bw/day	① DNEL worker ② Acute - dermal, systemic effects
potassium methylsilanetriolate CAS No.: 31795-24-1	4 mg/kg bw/ day	① DNEL Consumer ② Acute - dermal, systemic effects
potassium methylsilanetriolate CAS No.: 31795-24-1	0.42 mg/kg bw/day	① DNEL Consumer ② oral, long-term, systemic

Substance name	PNEC Value	① PNEC type
Silicic acid, potassium salt CAS No.: 1312-76-1	7.5 mg/l	① PNEC aquatic, freshwater
potassium methylsilanetriolate CAS No.: 31795-24-1	4.2 mg/l	① PNEC aquatic, freshwater
potassium methylsilanetriolate CAS No.: 31795-24-1	0.42 mg/l	① PNEC aquatic, marine water
potassium methylsilanetriolate CAS No.: 31795-24-1	10 mg/l	① PNEC sewage treatment plant
potassium methylsilanetriolate CAS No.: 31795-24-1	3.3 mg/kg	① PNEC sediment, freshwater
potassium methylsilanetriolate CAS No.: 31795-24-1	0.33 mg/kg	① PNEC sediment, marine water
potassium methylsilanetriolate CAS No.: 31795-24-1	3.3 mg/kg	① PNEC secondary poisoning

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Technical measures to prevent exposure

8.2.2. Personal protection equipment

Eye/face protection:

Eye glasses with side protection DIN EN 166

Skin protection:

Tested protective gloves must be worn EN ISO 374. Suitable material: Butyl caoutchouc (butyl rubber), Breakthrough time (maximum wearing time) > 120 min. In the case of wanting to use the gloves again, clean them before taking off and air them well. Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Respiratory protection necessary at: aerosol or mist formation. Filtering device (full mask or mouthpiece) with filter: P2

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Other protection measures:

Do not breathe vapour/aerosol. Avoid contact with eyes and skin. Wear suitable protective clothing and gloves.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: colourless

Odour: not determined

Safety relevant basis data

parameter		at °C	Method	Remark
pH	11	20 °C		
Melting point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	≈ 100 °C			
Decomposition temperature	<i>not determined</i>			
Flash point	<i>not determined</i>			
Evaporation rate	<i>not determined</i>			
Auto-ignition temperature	<i>not determined</i>			
Upper/lower flammability or explosive limits	<i>not determined</i>			
Vapour pressure	<i>not determined</i>			
Vapour density	<i>not determined</i>			
Density	1.13 g/cm ³	20 °C	DIN EN ISO 2811-2	
Bulk density	<i>not determined</i>			
Water solubility	completely miscible			
Partition coefficient: n-octanol/water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>not determined</i>			

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions. The product itself does not burn.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Acid

10.4. Conditions to avoid

See section 7. No additional measures necessary.

10.5. Incompatible materials

Materials to avoid: Acid, Light metals (Formation of: Hydrogen)

10.6. Hazardous decomposition products

No known hazardous decomposition products. In case of fire: Gases/vapours, toxic

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
1312-76-1	Silicic acid, potassium salt	LD₅₀ oral: >2,000 mg/kg (Rat)
31795-24-1	potassium methylsilanetriolate	LD₅₀ oral: >2,000 mg/kg (Rat)
1310-66-3	lithium hydroxide	LD₅₀ oral: 210 mg/kg (Ratte)

Acute oral toxicity:

Based on available data, the classification criteria are not met.

Acute dermal toxicity:

Based on available data, the classification criteria are not met.

Acute inhalation toxicity:

Based on available data, the classification criteria are not met.

Skin corrosion/irritation:

Causes skin irritation.

Serious eye damage/irritation:

Causes serious eye irritation.

Respiratory or skin sensitisation:

Based on available data, the classification criteria are not met.

Germ cell mutagenicity:

Based on available data, the classification criteria are not met.

Carcinogenicity:

Based on available data, the classification criteria are not met.

Reproductive toxicity:

Based on available data, the classification criteria are not met.

STOT-single exposure:

Based on available data, the classification criteria are not met.

STOT-repeated exposure:

Based on available data, the classification criteria are not met.

Aspiration hazard:

Based on available data, the classification criteria are not met.

Additional information:

No data available

SECTION 12: Ecological information

12.1. Toxicity

CAS No.	Substance name	Toxicological information
1312-76-1	Silicic acid, potassium salt	EC₅₀: >146 mg/l (Daphnia pulex (water flea)) LC₅₀: >146 mg/l 2 d (Leuciscus idus (golden orfe))
31795-24-1	potassium methylsilanetriolate	LC₅₀: >500 mg/l 4 d (Brachydanio rerio (zebrafish)) OECD 203 EC₅₀: >100 mg/l 2 d (Daphnia magna (Big water flea)) OECD 202 EC₅₀: >120 mg/l 3 d (Pseudokirchneriella subcapitata) OECD 201

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12.2. Persistence and degradability

CAS No.	Substance name	Biodegradation	Remark
31795-24-1	potassium methylsilanetriolate	No	

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
1312-76-1	Silicic acid, potassium salt	—
31795-24-1	potassium methylsilanetriolate	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

06 02 05 * other bases

*: Evidence for disposal must be provided.

Waste code packaging:

15 01 10 * packaging containing residues of or contaminated by dangerous substances

*: Evidence for disposal must be provided.

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Completely emptied packages can be recycled.

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN-No.			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es)			
not relevant			
14.4. Packing group			
not relevant			

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Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
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14.5. Environmental hazards

not relevant

14.6. Special precautions for user

not relevant

14.7. Transport in bulk according to Annex II of MARPOL 73/78 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 legislation

Other regulations (EU):

2008/98/EC, 2001/118/EC, 1999/13/EC, 2004/42/EC, (EC) No. 1907/2006, (EU) 2015/830, 75/324/EEC, 2008/47/EC, (EC) No. 1272/2008, 2008/68/EC, (EC) No. 648/2004

This product meets the requirements of Regulation (EC) No. 1935/2004 on the limitation of VOC content. Information on Directive 1999/13 / EC on the limitation of emissions of volatile organic compounds (VOC-RL): VOC (in g / L): 0

VOC EU Limit (2004/42/EG) (cat. IIA/h): 30 g/L, VOC-value (in g/L): 0 g/L

This product meets the requirements of Regulation (EC) No. 1935/2004 on the limitation of VOC content.

15.1.2. National regulations

[GB] National regulations

Other regulations, restrictions and prohibition regulations

SI 2002/1689: CHIP Regulations 2002

SI 2002/2677: COSHH Regulations 2002

SI 1999/3242: Management of Health & Safety at Work Regulations 1999

Health & Safety at Work Act 1974

SI 1993/1643: Environmental Protection Act 1993 & Subsidiary Regulations.

Other national and local measures relating to the workplace, pollution control, environmental protection and waste control.

15.2. Chemical Safety Assessment

not applicable

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation (<i>Skin Irrit. 2</i>)	H315: Causes skin irritation.	
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	

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16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

16.6. Training advice

No data available

16.7. Additional information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.