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

1.1. Product identifier

SiliXan M 610

Product group: delivery product

Abbreviation: -

REACH Registration Number: -

CAS No: -

Index No: -

EC No: -

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

Use of the substance/mixture

BINDING AGENT

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name: NANO-X GMBH

Street: Theodor-Heuss-Str. 11a

Place: D-66130 Saarbrücken

Telephone: +49 (0)68195940 0

e-mail: sdb@nano-x.de

Contact person: Cathrin Anne Lang

e-mail: lang@nano-x.de

Internet: www.nano-x.de

Responsible Department: NANO-X GmbH

e-mail: sdb@nano-x.de

1.4. Emergency telephone number:

bei Vergiftung; Giftinformationszentrum Mainz +49 (0)6131 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: Xn - Harmful, Xi - Irritant, N - Dangerous for the environment

R phrases:

Harmful if swallowed.

Irritating to skin.

Risk of serious damage to eyes.

May cause sensitisation by skin contact.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory/skin sensitization: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Harmful if swallowed.

Harmful in contact with skin.

Causes serious eye damage.
Causes skin irritation.
May cause an allergic skin reaction.
Toxic to aquatic life with long lasting effects.

2.2. Label elements
Hazardous components which must be listed on the label
mixture of polyole acrylate
Signal word: Danger
Pictograms: GHS05-GHS07-GHS09

Hazard statements
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H318 Causes serious eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P391 Collect spillage.

Special labelling of certain mixtures
EUH208 Contains Dibutylzindilaurat. May produce an allergic reaction.
Caution — substance not yet tested completely.
For use in industrial installations or professional treatment only.

SECTION 3: Composition/information on ingredients

3.2. Mixtures
Chemical characterization
Acrylate.

Sum formula: -
Molecular weight: -
Hazardous components

<table>
<thead>
<tr>
<th>EC No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS No</td>
<td>Classification according to Directive 67/548/EEC</td>
<td></td>
</tr>
<tr>
<td>Index No</td>
<td>Classification according to Regulation (EC) No. 1272/2008 [CLP]</td>
<td></td>
</tr>
<tr>
<td>REACH No</td>
<td>mixture of polyole acrylate</td>
<td>85 - &lt; 90 %</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>Xn - Harmful, Xi - Irritant, N - Dangerous for the environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 2; H302 H315 H318 H317 H411</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 - &lt; 10 % Di(trimethylolpropan)tetraacrylat</td>
<td>5 - &lt; 10 %</td>
</tr>
<tr>
<td></td>
<td>N - Dangerous for the environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2, Aquatic Chronic 2; H319 H411</td>
<td></td>
</tr>
<tr>
<td>01-2119977121-41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>201-039-8</td>
<td>Di-n-butyltindilaurate</td>
<td>&lt; 0.1 %</td>
</tr>
<tr>
<td>77-58-7</td>
<td>Muta. Cat. 3, Repr. Cat. 1, T - Toxic, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Muta. 2, Repr. 1, Acute Tox. 4, Skin Corr. 1C, Skin Sens. 1, STOT SE 1, STOT RE 1, Aquatic Acute 1 (M-Factor = 1); Aquatic Chronic 1 (M-Factor = 1); H341 H360Df</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H301 H314 H317 H370 H400 H410</td>
<td></td>
</tr>
<tr>
<td>01-2119496068-27</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Take off immediately all contaminated clothing. Move victim to fresh air. Instruct person to keep calm and warm. If victim is at risk of losing consciousness, position and transport on their side.

After inhalation
Provide fresh air. Consult physician if problems persist.

After contact with skin
Take off immediately all contaminated clothing. After contact with skin, wash immediately with: Water and soap.

After contact with eyes
If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion
Consult physician. Make affected person vomit if conscious.

4.2. Most important symptoms and effects, both acute and delayed
No data available

4.3. Indication of any immediate medical attention and special treatment needed
Nature of Hazard: Milk or fat oils and are strongly contraindicated. Caution if victim vomits: Risk of aspiration!
Treatment: Following swallowing of paraffin-oil carry out stomach pumping with animal charcoal addition agent.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
Atomized water. alcohol resistant foam. dry extinguishing powder. Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons
High power water jet.

5.2. Special hazards arising from the substance or mixture
Can be released in case of fire:
Carbon dioxide (CO2).
Carbon monoxide.
The thermal decomposition may lead to the formation of irritating vapour or gases and/or fire.

5.3. Advice for firefighters
In case of fire: Wear self-contained breathing apparatus. Full protective suit.

Additional information
Vapours are heavier than air and will spread at floor level. In case of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.2. Environmental precautions
Do not empty into drains or the aquatic environment. In case of gas being released or leakage into waters, ground or the drainage system, the appropriate authorities must be informed. Ventilate affected area.

6.3. Methods and material for containment and cleaning up
Clean contaminated articles and floor according to the environmental legislation.
Suitable absorbing material: Universal binding agent.
Ventilate affected area.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
If suction of the immediate vicinity is impossible or insufficient, the entire working place must be sufficiently ventilated using appropriate machines. Handle and open container with care. It is recommended to organize all working processes in order to exclude the following: inhalation. skin contact. Eye contact.

Advice on protection against fire and explosion
Concentrated vapours are heavier than air. Vapours may form explosive mixtures with air. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

Further information on handling
Keep in a cool, well-ventilated place.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep container tightly closed in a cool, well-ventilated place. Ensure the grounding of containers, apparatus, pumps and suction equipment. Protect against: heat. frost. moisture. flame

Advice on storage compatibility
No data available
Further information on storage conditions
storage temperature: 5 - 25 °C

7.3. Specific end use(s)
No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
 Additional advice on limit values
 No data available

8.2. Exposure controls
Occupational exposure controls
If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn. In the immediate working surroundings there must be: Emergency spray installed. Provide eye wash and label its location conspicuously.

Protective and hygiene measures
It is recommended to organize all working processes in order to exclude the following: inhalation. skin contact. Eye contact. After work, wash hands and face.

Respiratory protection
Wear respiratory protection when in the presence of vapour, dust, and aerosols. Filter respirator (full mask or mouth-piece) with filter: Manufacturer. 3M Art. Nr. 6800S (special filter for organic and inorganic gases and aerosols, 3M Art. Nr. ABEK1, particle filter for fine dust or dangerous aerosols 3M P3 Art.Nr. 5935)

Hand protection
Protect skin by using skin protective cream. Tested protective gloves are to be worn: Suitable material: NBR (Nitrile rubber). Butyl rubber. FKM (fluororubber).

Eye protection
Tightly sealed safety glasses.

Skin protection
Lab apron.

Environmental exposure controls
refer to Chap. 5 and 6

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>liquid</th>
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<tbody>
<tr>
<td>Colour:</td>
<td>slightly yellow</td>
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<tr>
<td>Odour:</td>
<td>characteristic</td>
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Test method
~ 4,5 DIN 19261

Changes in the physical state

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Melting point:</td>
<td>not determined</td>
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<tr>
<td>Initial boiling point and boiling range:</td>
<td>not determined</td>
</tr>
<tr>
<td>Flash point:</td>
<td>&gt; 100 °C DIN ISO 3679</td>
</tr>
<tr>
<td>Lower explosion limits:</td>
<td>not determined</td>
</tr>
<tr>
<td>Upper explosion limits:</td>
<td>not determined</td>
</tr>
<tr>
<td>Ignition temperature:</td>
<td>not determined</td>
</tr>
</tbody>
</table>
9.2. Other information

9.2. Other information

Solid content: > 98 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

No data available

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Keep only in the original container at temperature not exceeding 30 °C. Avoid contact with heat sources. Keep away from heat.

10.5. Incompatible materials

Keep away from strong acids, leachates, heavy metal salts and reducing materials.

10.6. Hazardous decomposition products

No data available

Further information

Even after use and until complete evaporation of the flammable components, there is still a danger of an explosive steam-air mixture forming.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No data available

Acute toxicity

No data available
<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure routes</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
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<tr>
<td>Trade Secret</td>
<td>mixture of polyole acrylate</td>
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<td></td>
</tr>
<tr>
<td>oral</td>
<td>LD50 540 - 1350 mg/kg</td>
<td>Ratte</td>
<td></td>
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<tr>
<td>dermal</td>
<td>LD50 &gt; 2000 mg/kg</td>
<td>Kaninchen</td>
<td></td>
<td></td>
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<tr>
<td>94108-97-1</td>
<td>Di(trimethylolpropan)tetraacrylat</td>
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</tr>
<tr>
<td>oral</td>
<td>LD50 &gt; 2000 mg/kg</td>
<td>Ratte</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dermal</td>
<td>LD50 &gt; 2000 mg/kg</td>
<td>Kaninchen</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>inhalative (4 h) vapour</td>
<td>LC50 &gt; 5 mg/l</td>
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</tr>
<tr>
<td>77-58-7</td>
<td>Di-n-butyltindilaurate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>oral</td>
<td>LD50 175 mg/kg</td>
<td>Ratte</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dermal</td>
<td>LD50 0,15 mg/kg</td>
<td>Maus</td>
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</table>

Specific effects in experiment on an animal
No data available

Irritation and corrosivity
No data available

Sensitising effects
No data available

Severe effects after repeated or prolonged exposure
No data available

Carcinogenic/mutagenic/toxic effects for reproduction
No data available

Empirical data on effects on humans
Inhalation causes narcotic effects/intoxication.

Further information
See protective measures under point 7 and 8.

SECTION 12: Ecological information

12.1. Toxicity
No data available
### 12.2. Persistence and degradability

No data available

### 12.3. Bioaccumulative potential

No data available

#### Partition coefficient n-octanol/water

<table>
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<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
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</thead>
<tbody>
<tr>
<td>77-58-7</td>
<td>Di-n-butyltindilaurate</td>
<td>3.12</td>
</tr>
</tbody>
</table>

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Waste disposal number of waste from residues/unused products

080111  **WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other dangerous substances**

- Classified as hazardous waste.

##### Waste disposal number of used product

080111  **WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other dangerous substances**

- Classified as hazardous waste.

##### Waste disposal number of contaminated packaging

150110  **WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances**

- Classified as hazardous waste.
Contaminated packaging
Completely emptied packings can be re-cycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ACRYLATES)
14.3. Transport hazard class(es): III
14.4. Packing group: 9

Hazard label: 9
Classification code: M6
Special Provisions: 274 335 601
Limited quantity: 5 L
Transport category: 3
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ACRYLATES)
14.3. Transport hazard class(es): III
14.4. Packing group: 9

Hazard label: 9
Classification code: M6
Special Provisions: 274 335 601
Limited quantity: 5 L

Marine transport (IMDG)

14.1. UN number: 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ACRYLATES)
14.3. Transport hazard class(es): III
14.4. Packing group: 9

Hazard label: YES
Marine pollutant: 274, 335
Special Provisions: 274, 335
Limited quantity: 5 L
SECTION 15: Regulatory information

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

National regulatory information

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.

Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

www.wikipedia.com

Relevant R-phrases (Number and full text)

22 Harmful if swallowed.
25 Toxic if swallowed.
36/38 Irritating to eyes and skin.
38 Irritating to skin.
41 Risk of serious damage to eyes.
43 May cause sensitisation by skin contact.
48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
50 Very toxic to aquatic organisms.
51 Toxic to aquatic organisms.
53 May cause long-term adverse effects in the aquatic environment.
60 May impair fertility.
61 May cause harm to the unborn child.
68 Possible risks of irreversible effects.

Relevant H- and EUH-phrases (Number and full text)

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
## SiliXan M 610 Safety Data Sheet

### According to Regulation (EC) No 1907/2006

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H341</td>
<td>Suspected of causing genetic defects.</td>
</tr>
<tr>
<td>H360Df</td>
<td>May damage the unborn child. Suspected of damaging fertility.</td>
</tr>
<tr>
<td>H370</td>
<td>Causes damage to organs.</td>
</tr>
<tr>
<td>H372</td>
<td>Causes damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>EUH208</td>
<td>Contains Dibutylzinndilaureat. May produce an allergic reaction.</td>
</tr>
</tbody>
</table>

### Further Information

The information contained herein is based on the present state of our knowledge. It characterizes the product/composition with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product. Any liability for damages, which occur in case of improper use or contact with the product/composition is excluded.

*The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.*