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

1.1. Product identifier
SiliXan Cat 500-25/PM

Product group: Zulieferprodukt
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
ADDITIVE, CATALYST

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
Telephone: 0049 (0)68195940 45
E-mail: lang@nano-x.de
Internet: www.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: C - Corrosive, Xn - Harmful
R phrases:
Flammable.
Harmful if swallowed.
Causes burns.
May cause sensitisation by skin contact.
Vapours may cause drowsiness and dizziness.

2.2. Label elements

Danger symbols: C - Corrosive

R phrases
10 Flammable.
22 Harmful if swallowed.
34 Causes burns.
43 May cause sensitisation by skin contact.
67 Vapours may cause drowsiness and dizziness.

S phrases
23 Do not breathe aerosol/atomised spray.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
51 Use only in well-ventilated areas.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Special labelling of certain mixtures
For use in industrial installations or professional treatment only.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization
Siloxane compound

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</td>
<td></td>
</tr>
<tr>
<td>Index No</td>
<td>GHS classification</td>
<td></td>
</tr>
<tr>
<td>REACH No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>amines with EINECS registration</td>
<td>50 %</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>C - Corrosive, Xn - Harmful. R22-34-43</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1; H302 H314 H317</td>
<td></td>
</tr>
<tr>
<td>203-539-1</td>
<td>1-methoxy-2-propanol; monopropylene glycol methyl ether</td>
<td>49,75 %</td>
</tr>
<tr>
<td>107-98-2</td>
<td>R10-67</td>
<td></td>
</tr>
<tr>
<td>603-064-00-3</td>
<td>Flam. Liq. 3, STOT SE 3; H226 H336</td>
<td></td>
</tr>
<tr>
<td>216-455-5</td>
<td>2-methoxypropanol</td>
<td>0,25 %</td>
</tr>
<tr>
<td>1589-47-5</td>
<td>Repr. Cat. 2, Xi - Irritant. R10-61-37/38-41</td>
<td></td>
</tr>
<tr>
<td>603-106-00-0</td>
<td>Flam. Liq. 3, Repr. 1B, STOT SE 3, Skin Irrit. 2, Eye Dam. 1; H226 H360D *** H335 H315 H318</td>
<td></td>
</tr>
</tbody>
</table>

Full text of R and H phrases: see Section 16.

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

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\n
**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

**Exposure limits (EH40)**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-98-2</td>
<td>1-Methoxypropan-2-ol</td>
<td>100</td>
<td>375</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>150</td>
<td>560</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

**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.
SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>clear @</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
<td></td>
</tr>
<tr>
<td>pH-Value</td>
<td>10,5</td>
<td>DIN 19261</td>
</tr>
<tr>
<td>Changes in the physical state</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Boiling point</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>38 °C</td>
<td>DIN ISO 3679</td>
</tr>
<tr>
<td>Lower explosion limits</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limits</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>0,94 g/cm³</td>
<td>DIN 12791 ISO 649</td>
</tr>
<tr>
<td>Viscosity / dynamic</td>
<td>~ 7 mPa·s</td>
<td>ISO 2555</td>
</tr>
<tr>
<td>Flow time</td>
<td>~ 20 s (3 mm)</td>
<td>3 DIN 53211</td>
</tr>
</tbody>
</table>

9.2. Other information

Solid content: ~ 25%

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
If there are no test datas available, the formulation have to be evaluated according to the conventional method of the preparing guideline 1999/45/EG and classified after toxicological dangers. See to chapter 2 and 15.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure routes</th>
<th>Method</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Trade Secret amines with EINECS registration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>oral</td>
<td>LD50</td>
<td>EPA Methode</td>
<td>1490 mg/kg</td>
<td>Ratte</td>
<td></td>
</tr>
<tr>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>EPA Methode</td>
<td>4076 mg/kg</td>
<td>Kaninchen</td>
<td></td>
</tr>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol; monopropylene glycol methyl ether</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>oral</td>
<td>LD50</td>
<td>IUCLID</td>
<td>&gt; 5000</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>IUCLID</td>
<td>11000</td>
<td>Rabbit</td>
<td></td>
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</tbody>
</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
### Aquatic toxicity

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Method</th>
<th>Dose</th>
<th>h</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>amines with EINECS registration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>&gt; 934 mg/l</td>
<td>96</td>
<td>Brachydanio rerio</td>
<td>OECD TG 203</td>
</tr>
<tr>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>&gt; 1000 mg/l</td>
<td>72</td>
<td>scenedesmus subspicatus</td>
<td>OECD TG 201</td>
</tr>
<tr>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>331 mg/l</td>
<td>48</td>
<td>Daphnia magna</td>
<td>OECD TG 201</td>
</tr>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol; monopropylene glycol methyl ether</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>4600 - 10000</td>
<td>96</td>
<td>Leuciscus idus</td>
<td>IUCLID</td>
</tr>
<tr>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>&gt; 1000 mg/l</td>
<td>72</td>
<td>Selenastrum capricornutum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>&gt; 500 mg/l</td>
<td>48</td>
<td>Daphnia magna</td>
<td>IUCLID</td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability

No data available

### 12.3. Bioaccumulative potential

No data available

### Partition coefficient n-octanol/water

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>amines with EINECS registration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,7</td>
<td></td>
</tr>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol; monopropylene glycol methyl ether</td>
<td>-0.437</td>
</tr>
</tbody>
</table>

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

No data available

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

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHOXYPROPANOL, AMIN)
14.3. Transport hazard class(es): III
14.4. Packing group: 3+8

Classification code: FC
Special Provisions: 274
Limited quantity: 5 L
Transport category: 3
Hazard No: 38
Tunnel restriction code: D/E

Other applicable information (land transport)
E2
E1

Inland waterways transport (ADN)

14.1. UN number: 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHOXYPROPANOL, AMIN)
14.3. Transport hazard class(es): III
14.4. Packing group: 3+8

Classification code: FC
Special Provisions: 274
Limited quantity: 5 L

Other applicable information (inland waterways transport)
E1

Marine transport (IMDG)

14.1. UN number: 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHOXYPROPANOL, AMIN)
14.3. Transport hazard class(es): III
14.4. Packing group: 3+8

Classification code: FC
Special Provisions: 274
Limited quantity: 5 L

Other applicable information (inland waterways transport)
E1
Special Provisions: 223, 274
Limited quantity: 5 L
EmS: F-E, S-C

Other applicable information (marine transport)
E1

Air transport (ICAO)

14.1. UN number: 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHOXYPROPANOL, AMIN)
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3+8

Special Provisions: A3
Limited quantity Passenger: 1 L
IATA-packing instructions - Passenger: 354
IATA-max. quantity - Passenger: 5 L
IATA-packing instructions - Cargo: 365
IATA-max. quantity - Cargo: 60 L

Other applicable information (air transport)
E1
: Y342

SECTION 15: Regulatory information

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

National regulatory information
Water contaminating class (D): 1 - slightly 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

Full text of R phrases referred to under Sections 2 and 3

10 Flammable.
22 Harmful if swallowed.
34 Causes burns.
37/38 Irritating to respiratory system and skin.
41 Risk of serious damage to eyes.
43 May cause sensitisation by skin contact.
61 May cause harm to the unborn child.
67 Vapours may cause drowsiness and dizziness.
Full text of H statements referred to under Sections 2 and 3

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H360D May damage the unborn child.

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.)