# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## SiliXan Cat 210

Print date: 16.03.2015  
Product code: 18061303  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

SiliXan Cat 210  
**Product group:** Testing material  
**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

**trader/person**

<table>
<thead>
<tr>
<th><strong>Company name</strong></th>
<th>SiliXan GmbH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Street</strong></td>
<td>Theodor-Heuss-Str. 11a</td>
</tr>
<tr>
<td><strong>Place</strong></td>
<td>D-66130 Saarbrücken</td>
</tr>
<tr>
<td><strong>Telephone</strong></td>
<td>0049 681 876105 23</td>
</tr>
<tr>
<td><strong>Fax</strong></td>
<td>0049 681 876105 31</td>
</tr>
<tr>
<td><strong>e-mail</strong></td>
<td><a href="mailto:info@siliXan.de">info@siliXan.de</a></td>
</tr>
<tr>
<td><strong>Contact person</strong></td>
<td>Dr. Frank Groß</td>
</tr>
<tr>
<td><strong>e-mail</strong></td>
<td><a href="mailto:frank.gross@siliXan.de">frank.gross@siliXan.de</a></td>
</tr>
<tr>
<td><strong>Internet</strong></td>
<td><a href="http://www.siliXan.de">www.siliXan.de</a></td>
</tr>
</tbody>
</table>

**Manufacturer:**

<table>
<thead>
<tr>
<th><strong>Company name</strong></th>
<th>NANO-X GMBH</th>
</tr>
</thead>
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<td><strong>Place</strong></td>
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</tr>
<tr>
<td><strong>Telephone</strong></td>
<td>+49 (0)68195940 0</td>
</tr>
<tr>
<td><strong>Fax</strong></td>
<td><a href="mailto:sdb@nano-x.de">sdb@nano-x.de</a></td>
</tr>
<tr>
<td><strong>Contact person</strong></td>
<td>Cathrin Anne Lang</td>
</tr>
<tr>
<td><strong>e-mail</strong></td>
<td><a href="mailto:lang@nano-x.de">lang@nano-x.de</a></td>
</tr>
<tr>
<td><strong>Internet</strong></td>
<td><a href="http://www.nano-x.de">www.nano-x.de</a></td>
</tr>
</tbody>
</table>

**Responsible Department:** NANO-X GmbH  
**e-mail:** sdb@nano-x.de

### 1.4. Emergency telephone number

bei Vergiftung: Giftnachweismittelzentrum Mainz  +49 (0)6131 19240

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Indications of danger:** C - Corrosive, X1 - Irritant  
**R phrases:**  
Flammable.  
Causes burns.  
Irritating to respiratory system.  
Vapours may cause drowsiness and dizziness.

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**
Hazard categories:
- Flammable liquid: Flam. Liq. 3
- Skin corrosion/irritation: Skin Irrit. 2
- Serious eye damage/eye irritation: Eye Dam. 1
- Specific target organ toxicity - single exposure: STOT SE 3
- Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:
- Flammable liquid and vapour.
- May cause respiratory irritation.
- Causes severe skin burns and eye damage.
- May cause drowsiness or dizziness.

2.2. Label elements

Hazardous components which must be listed on the label
- 2-methylpropan-1-ol; iso-butanol

Signal word: Danger
Pictograms: GHS02-GHS05-GHS07

Hazard statements
- H226 Flammable liquid and vapour.
- H335 May cause respiratory irritation.
- H314 Causes severe skin burns and eye damage.
- H336 May cause drowsiness or dizziness.

Precautionary statements
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P241 Use explosion-proof electrical/ventilating/lighting equipment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P310 Immediately call a POISON CENTER/doctor.
- P235 Keep cool.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P331 Do NOT induce vomiting.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- P501 Dispose of contents/container to Appropriate disposal/Product:

Special labelling of certain mixtures
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
- acid., organic

Sum formula: -
SiliXan Cat 210  
Product code: 18061303

Molecular weight:  
-  

**Hazardous components**

<table>
<thead>
<tr>
<th>EC No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>201-148-0</td>
<td>2-methylpropan-1-ol; iso-butanol</td>
<td>50 - &lt; 55 %</td>
</tr>
<tr>
<td>78-83-1</td>
<td>Xi - Irritant R10-37/38-41-67</td>
<td></td>
</tr>
<tr>
<td>603-108-00-1</td>
<td>Flam. Liq. 3, STOT SE 3, Skin Irrit. 2, Eye Dam. 1, STOT SE 3; H226 H335 H315 H318 H336</td>
<td></td>
</tr>
<tr>
<td>235-741-0</td>
<td>phosphoric acid, 2-ethylhexyl ester</td>
<td>50 - &lt; 55 %</td>
</tr>
<tr>
<td>12645-31-7</td>
<td>C - Corrosive R34</td>
<td></td>
</tr>
</tbody>
</table>

Full text of R-, H- and EUH-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
Wear personal protection equipment. Keep away from unprotected people. Keep upwind. Provide adequate ventilation. Remove all sources of ignition. Avoid contact with skin and eyes.

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
Suitable material for Container: Glass. PE (polyethylene).
Unsafe materials for Container: steel.
Keep container tightly closed in a cool, well-ventilated place. Ensure the grounding of containers, apparatus, pumps and suction equipment.

Advice on storage compatibility
Protect against: heat. frost. moisture. flame
Please note: TRGS 510

Further information on storage conditions
storage temperature: 5 - 25 °C

7.3. Specific end use(s)
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>78-83-1</td>
<td>2-Methyl/propan-1-ol</td>
<td>50</td>
<td>154</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>75</td>
<td>231</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
With correct and proper use, and under normal conditions, breathing protection is not required. If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn.

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

Physical state: liquid
Colour: slightly yellow
Odour: alcoholic

Test method
pH-Value: 2 - 3 DIN 19261

Changes in the physical state
Melting point: No data available
Initial boiling point and boiling range: 108 °C
Flash point: 29 °C DIN ISO 3679
Lower explosion limits: 1.7 vol. %
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Upper explosion limits: 12 vol. %
Ignition temperature: 390 °C
Vapour pressure: not determined
Density: 0,91 g/cm³ DIN 12791 ISO 649
Water solubility: not miscible
Viscosity / dynamic: No data available ISO 2555
Flow time: No data available 3 DIN 53211
Solvent content: ~ 50,00 %

SECTION 10: Stability and reactivity

10.1. Reactivity
   No data available

10.2. Chemical stability
   stable at room temperature

10.3. Possibility of hazardous reactions
   This article doesn't contain dangerous substances or preparations intended to be released under normal or reasonably foreseeable conditions of use.

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>Method</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
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<tbody>
<tr>
<td>78-83-1</td>
<td>2-methylpropan-1-ol; iso-butanol</td>
<td>oral</td>
<td>LD50</td>
<td>&gt; 2830</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>&gt; 2000</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h) vapour</td>
<td>LC50</td>
<td>&gt; 24 mg/l</td>
<td>Rat</td>
</tr>
</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

Additional information on tests
No data available

Empirical data on effects on humans
Inhalation causes narcotic effects/intoxicaiton.
No data available

Further information
See protective measures under point 7 and 8.

SECTION 12: Ecological information

12.1. Toxicity
No data available

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Aquatic toxicity</th>
<th>Method</th>
<th>Dose</th>
<th>h</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>78-83-1</td>
<td>2-methylpropan-1-ol; iso-butanol</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>1430 mg/l</td>
<td>96 h</td>
<td>Pimephales promelas</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>EC50</td>
<td>1250 mg/l</td>
<td></td>
<td>Desmodesmus subspicatus</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>1439 mg/l</td>
<td>48 h</td>
<td>Daphnia magna</td>
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</table>

12.2. Persistence and degradability
No data available

12.3. Bioaccumulative potential
No data available

Partition coefficient n-octanol/water
No data available

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
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<tbody>
<tr>
<td>78-83-1</td>
<td>2-methylpropan-1-ol; iso-butanol</td>
<td>0,79</td>
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</tbody>
</table>

12.4. Mobility in soil
No data available

12.5. Results of PBT and vPvB assessment
No data available

12.6. Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste disposal number of waste from residues/unused products
## SECTION 14: Transport information

### Land transport (ADR/RID)

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>2924</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>FLAMMABLE LIQUID, CORROSIVE, N.O.S. (2-METHYLPROPA-N-1-OL)</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es):</td>
<td>3</td>
</tr>
<tr>
<td>14.4. Packing group:</td>
<td>III</td>
</tr>
</tbody>
</table>

**Hazard label:**

![Hazard label image]

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

### Inland waterways transport (ADN)

<table>
<thead>
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</tr>
<tr>
<td>14.4. Packing group:</td>
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**Hazard label:**

![Hazard label image]

- Classification code: FC
- Special Provisions: 274
- Limited quantity: 5 L
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Marine transport (IMDG)

14.1. UN number: 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (2-METHYLPROPAN-1-OL)
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3+8

Special Provisions: 223, 274
Limited quantity: 5 L
EmS: F-E, S-C

Air transport (ICAO)

14.1. UN number: 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (2-METHYLPROPAN-1-OL)
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3+8

Special Provisions: A3 A803
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

14.5. Environmental hazards
ENVIROMENTALLY HAZARDOUS: no

SECTION 15: Regulatory information

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

EU regulatory information
1999/13/EC (VOC): 50 % (450 g/l)

National regulatory information
Employment restrictions: Observe employment restrictions for young people.
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

Changes
aktualisiert 16.03.15 - Umstellung auf CLP-VO

Abbreviations and acronyms
www.wikipedia.com
Relevant R-phrases (Number and full text)

10 Flammable.
34 Causes burns.
37/38 Irritating to respiratory system and skin.
41 Risk of serious damage to eyes.
67 Vapours may cause drowsiness and dizziness.

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

H26 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

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.)