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

1.1 Product identifiers

   Product name : Sigmacote®
   Product Number : SL2
   Brand : Sigma
   REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

   Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

   Company : Sigma-Aldrich Chemie BV
              Stationsplein 4
              3331 LL ZWIJNDRECHT
              NETHERLANDS
   Telephone : +31 78-620-5411
   Fax : +31 78-620-5421
   E-mail address : eurtechserv@sial.com

1.4 Emergency telephone number

   Emergency Phone # : 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

   Classification according to Regulation (EC) No 1272/2008
   Flammable liquids (Category 2), H225
   Skin irritation (Category 2), H315
   Eye irritation (Category 2), H319
   Specific target organ toxicity - single exposure (Category 3), H336
   Aspiration hazard (Category 1), H304
   Acute aquatic toxicity (Category 1), H400
   Chronic aquatic toxicity (Category 1), H410
   For the full text of the H-Statements mentioned in this Section, see Section 16.

   Classification according to EU Directives 67/548/EEC or 1999/45/EC
   F Highly flammable R11
   Xn Harmful R65
   Xi Irritant R38
   N Dangerous for the environment R50/53
   R67
   For the full text of the R-phrases mentioned in this Section, see Section 16.
2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word: Danger

Hazard statement(s):
H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing vapours.
P273 Avoid release to the environment.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
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.

Supplemental Hazard Statements: none


Hazard symbol(s):
F Highly flammable
Xn Harmful
N Dangerous for the environment

R-phrase(s):
R11 Highly flammable.
R38 Irritating to skin.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.

S-phrase(s):
S16 Keep away from sources of ignition - No smoking.
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.
S62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Synonyms:
coating
silane
silanization
silanize
silicone coating reagent
siliconization reagent
siloxane

Molecular weight : 100.21 g/mol

**Hazardous ingredients according to Regulation (EC) No 1272/2008**

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heptane</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>142-82-5</td>
<td></td>
</tr>
<tr>
<td>EC-No.</td>
<td>205-563-8</td>
<td>Flam. Liq. 2; Skin Irrit. 2; STOT SE 3; Asp. Tox. 1; Aquatic Chronic 1; H225, H304, H315, H336, H410</td>
</tr>
<tr>
<td>Index-No.</td>
<td>601-008-00-2</td>
<td>&gt;= 50 - &lt;= 100 %</td>
</tr>
</tbody>
</table>

| **1,7-Dichloro-1,1,3,3,5,5,7,7-octamethyltetrasiloxane** | | |
| CAS-No.   | 2474-02-4     | Skin Corr. 1B; H314 |
| EC-No.    | 219-597-6     | >= 1 - < 3 % |

**Hazardous ingredients according to Directive 1999/45/EC**

<table>
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<td>F, Xn, N, R11 - R38 - R65 - R67 - R50/53</td>
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<td>205-563-8</td>
<td>&gt;= 50 - &lt;= 100 %</td>
</tr>
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<td>Index-No.</td>
<td>601-008-00-2</td>
<td></td>
</tr>
</tbody>
</table>

| **1,7-Dichloro-1,1,3,3,5,5,7,7-octamethyltetrasiloxane** | | |
| CAS-No.   | 2474-02-4     | C, R34 |
| EC-No.    | 219-597-6     | >= 1 - < 3 % |

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**
Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**4.2 Most important symptoms and effects, both acute and delayed**
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed**
No data available
SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Hydrogen chloride gas, silicon oxides

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature 2 - 8 °C

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Components with workplace control parameters

8.2 Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment

Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection
Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance Form: liquid
b) Odour No data available
c) Odour Threshold No data available
d) pH No data available
e) Melting point/freezing point -91 °C
f) Initial boiling point and boiling range 98 - 99 °C
g) Flash point  -4 °C - closed cup
h) Evaporation rate  No data available
i) Flammability (solid, gas)  No data available
j) Upper/lower flammability or explosive limits  Upper explosion limit: 7 % (V)
      Lower explosion limit: 1,1 % (V)
k) Vapour pressure  110,7 hPa at 37,7 °C
      53,3 hPa at 20,0 °C
l) Vapour density  No data available
m) Relative density  0,68 g/cm3
n) Water solubility  insoluble
o) Partition coefficient: n-octanol/water  log Pow: > 3,000
p) Auto-ignition temperature  223,0 °C
q) Decomposition temperature  No data available
r) Viscosity  No data available
s) Explosive properties  No data available
t) Oxidizing properties  No data available

9.2 Other safety information
   No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
   No data available

10.2 Chemical stability
   Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
   No data available

10.4 Conditions to avoid
   Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatible materials
   Strong oxidizing agents

10.6 Hazardous decomposition products
   Other decomposition products - No data available
   In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

   Acute toxicity
   No data available

   Skin corrosion/irritation
   No data available

   Serious eye damage/eye irritation
   No data available
Respiratory or skin sensitisation
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
RTECS: Not available

Stomach - Irregularities - Based on Human Evidence (Heptane)

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

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 2924  IMDG: 2924  IATA: 2924

14.2 UN proper shipping name
ADR/RID: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Heptane, 1,7-Dichloro-1,1,3,3,5,5,7,7-
octamethyltetrasiloxane)
IMDG: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Heptane, 1,7-Dichloro-1,1,3,3,5,5,7,7-octamethyltetrasiloxane)
IATA: Flammable liquid, corrosive, n.o.s. (Heptane, 1,7-Dichloro-1,1,3,3,5,5,7,7-octamethyltetrasiloxane)

14.3 Transport hazard class(es)
ADR/RID: 3 (8)  IMDG: 3 (8)  IATA: 3 (8)

14.4 Packaging group
ADR/RID: II  IMDG: II  IATA: II

14.5 Environmental hazards
ADR/RID: no  IMDG Marine pollutant: no  IATA: no

14.6 Special precautions for user
No data available

SECTION 15: Regulatory information
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available

15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

Aquatic Acute  Acute aquatic toxicity
Aquatic Chronic  Chronic aquatic toxicity
Asp. Tox.  Aspiration hazard
Flam. Liq.  Flammable liquids
H225  Highly flammable liquid and vapour.
H304  May be fatal if swallowed and enters airways.
H314  Causes severe skin burns and eye damage.
H315  Causes skin irritation.
H319  Causes serious eye irritation.
H336  May cause drowsiness or dizziness.
H400  Very toxic to aquatic life.
H410  Very toxic to aquatic life with long lasting effects.
Skin Corr.  Skin corrosion
Skin Irrit.  Skin irritation
STOT SE  Specific target organ toxicity - single exposure

Full text of R-phrases referred to under sections 2 and 3

C  Corrosive
F  Highly flammable
N  Dangerous for the environment
R11  Highly flammable.
R34  Causes burns.
R38  Irritating to skin.
R50/53  Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65  Harmful: may cause lung damage if swallowed.
R67  Vapours may cause drowsiness and dizziness.
Xn  Harmful
Further information
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