1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Product name : DOW CORNING(R) 1-2577 CONFORMAL COATING

1.2 Identified uses : Semiconductors

Uses advised against : None known.

1.3 Company : Dow Corning Europe S.A.
   rue Jules Bordet - Parc Industriel - Zone C
   B-7180 Seneffe
   Belgium

E-mail address (Safety Data Sheet) : sdseu@dowcorning.com

Customer Service : English Tel: +49 611237507
   Deutsch Tel: +49 611237500
   Français Tel: +32 64511149
   Italiano Tel: +32 64511170
   Español Tel: +32 64511163
   Fax: +32 64888683

1.4 Emergency Phone Number : Dow Corning (Barry U.K. 24h) Tel: +44 1446732350
   Dow Corning (Wiesbaden 24h) Tel: +49 61122158
   Dow Corning (Seneffe 24h) Tel: +32 64 888240

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to EU Directives 67/548/EEC or 1999/45/EC:

R11 Highly flammable.
R38 Irritating to skin.
R43 May cause sensitization by skin contact.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R63 Possible risk of harm to the unborn child.
R67 Vapours may cause drowsiness and dizziness.

2.2 Label elements

Labelling according to EEC Directive

Contains : Toluene
          : Trimethoxy(methyl) silane

Symbols : F Highly flammable.
          : Xn Harmful.
R-phrases

- R11 Highly flammable.
- R38 Irritating to skin.
- R43 May cause sensitization by skin contact.
- R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R63 Possible risk of harm to the unborn child.
- R67 Vapours may cause drowsiness and dizziness.

S-phrases

- S23(V) Do not breathe vapour.
- S23(S) Do not breathe spray.
- S33 Take precautionary measures against static discharges.
- S36/37 Wear suitable protective clothing and gloves.
- S51 Use only in well-ventilated areas.
- S60 This material and its container must be disposed of as hazardous waste.

2.3 Other hazards

Vapours may form explosive mixtures with air.
3. COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical characterization:** Silicone in solvent

**According to EU Directives 67/548/EEC or 1999/45/EC:**

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS-No.</th>
<th>EINECS/ELINCS No.</th>
<th>REACH Registration Number</th>
<th>Conc. (% w/w)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl, methylmethoxy, phenylmethoxy siloxane with methyl and phenyl silsesquioxanes</td>
<td>68952-93-2</td>
<td>Exempt or not available</td>
<td>-</td>
<td>73,0</td>
<td>Substance with a Community workplace exposure limit</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>203-625-9</td>
<td>01-21194713/10-51</td>
<td>22,0</td>
<td>F</td>
</tr>
<tr>
<td>Trimethoxy(methyl)silane</td>
<td>1185-55-3</td>
<td>214-685-0</td>
<td>01-21195174/36-40</td>
<td>4,2</td>
<td>F</td>
</tr>
</tbody>
</table>

**According to Regulation (EC) No. 1272/2008:**

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS-No.</th>
<th>EINECS/ELINCS No.</th>
<th>REACH Registration Number</th>
<th>Conc. (% w/w)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl, methylmethoxy, phenylmethoxy siloxane with methyl and phenyl silsesquioxanes</td>
<td>68952-93-2</td>
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</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>203-625-9</td>
<td>01-21194713/10-51</td>
<td>22,0</td>
<td>Flammable liquid: Category 2 - H225, Skin corrosion/irritation: Category 2 - H315, Reproductive toxicity: Category 2 - H361d, Specific target organ toxicity - single exposure (Inhalation - vapour): Category 3 (narcotic effects) - H336, Specific target organ toxicity - repeated exposure (Inhalation - vapour): Category 2 (central nervous system) - H373, Aspiration hazard: Category 1 - H304</td>
</tr>
<tr>
<td>Trimethoxy(methyl)silane</td>
<td>1185-55-3</td>
<td>214-685-0</td>
<td>01-21195174/36-40</td>
<td>4,2</td>
<td>Flammable liquid: Category 2 - H225, Skin sensitization: Category 1 - H317</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

4.1 Description of First Aid Measures:

On contact with eyes : Flush with water.

On skin contact : Immediately flush with water. Wipe off. Obtain medical attention.

If inhaled : Remove to fresh air. Obtain medical attention immediately.

On ingestion : Do not induce vomiting. Obtain medical attention.

4.2 Most important symptoms/effects, acute and delayed : Irritating to skin.

May cause sensitization by skin contact.

Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Possible risk of harm to the unborn child.

Vapours may cause drowsiness and dizziness.

5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media : On large fires use dry chemical, foam or water spray (fog). On small fires use carbon dioxide (CO2), dry chemical or water spray. Water can be used to cool fire exposed containers.

Unsuitable extinguishing media : None known.

5.2 Hazards during fire fighting : Vapours are heavier than air and can travel along ground to remote ignition sources. Electrostatic charges may be generated during transfer of product from its container. Ensure that all equipment is electrically earthed. Vapours may form explosive mixtures with air.

Hazardous Combustion Products : Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Silica. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde.

5.3 Special protective equipment/procedures : A self-contained respirator and protective clothing should be worn. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
A self-contained respirator and protective clothing should be worn. Determine the need to evacuate or isolate the area according to your local emergency plan. Eliminate all possible sources of ignition.

6.2 Environmental precautions:
Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers.

6.3 Methods and materials for containment and cleaning up:
Determine the need to evacuate or isolate the area according to your local emergency plan. Eliminate all possible sources of ignition. Very large spills should be contained by bunding, etc... procedures. Mop, wipe or soak up with absorbent material and place in a container with a lid. The spilled product produces an extremely slippery surface.

7. HANDLING AND STORAGE

7.1 Advice on safe handling:
Avoid skin and eye contact. Do not breathe vapour. Do not breathe spray or mist. Do not ingest. General ventilation is required. Local ventilation is required. Do not empty into drains.

7.2 Advice on storage:
Store in a flameproof, well ventilated area. Electrostatic charges may be generated during transfer of product from its container. Ensure that all equipment is electrically earthed. Keep container tightly closed. Vapours may form explosive mixtures with air.

7.3 Specific uses:
Refer to technical data sheet available on request.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS-No.</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl, methylmethoxy, phenylmethoxy siloxane with methyl and phenyl silsesquioxanes</td>
<td>68952-93-2</td>
<td>200 ppm TWA as methanol</td>
</tr>
<tr>
<td></td>
<td></td>
<td>250 ppm STEL as methanol</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>20 ppm TWA</td>
</tr>
<tr>
<td>Trimethoxy(methyl)ilane</td>
<td>1185-55-3</td>
<td>50 ppm (8h TWA) - Dow Corning recommend.</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Engineering Controls:
Ventilation: Refer to Section 7.1
### SAFETY DATA SHEET

According to article 31 and Annex II of the EU REACH Regulation

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**DOW CORNING(R) 1-2577 CONFORMAL COATING**

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**Personal protection equipment**

**Respiratory protection**
- Contact with water or humid air will form methanol. Please take into account any occupational exposure limits for methanol which are applicable in your country.
- Suitable respiratory protection should be worn if the product is used in large quantities, confined spaces or in other circumstances where the OEL may be approached or exceeded.
- A suitable respirator must be worn if the product is used in any circumstances where an aerosol or mist may be generated, such as during spraying or similar activities.
- Depending on the working conditions, wear a respiratory mask with filter(s) AXP or use a self-contained respirator.
- The choice of a filter type depends on the amount and type of chemical being handled in the workplace. Regarding filter characteristics, contact your respiratory protection supplier.

**Hand protection**
- Chemical protective gloves or gauntlets should be worn and removed correctly to avoid skin contamination: Polyvinyl alcohol (PVA). Nitrile rubber. Silver shield(TM). 4H(TM). Regarding glove's breakthrough time, contact your chemical protective glove supplier.

**Eye/face protection**
- Face shield or safety goggles.

**Skin protection**
- Wear impervious overalls in circumstances where significant skin contact can occur.

**Hygiene measures**
- Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking. Remove contaminated clothing immediately.

**Additional information**
- These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding the use of silicones/organic oils in consumer aerosol applications, please refer to the guidance document regarding the use of these types of materials in consumer aerosol applications that has been developed by the silicone industry (www.SEHSC.com) or contact the Dow Corning customer service group.

**Environmental exposure controls**
- Refer to section 6 and 12.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>Strong</td>
</tr>
<tr>
<td>Boiling point/range</td>
<td>&gt; 65 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>5 °C (Seta Closed Cup)</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET
According to article 31 and Annex II of the EU REACH Regulation

DOW CORNING(R) 1-2577 CONFORMAL COATING

Explosive properties : No
Vapours may form explosive mixtures with air.

Specific Gravity : 1.04

Viscosity : 800 cSt at 25°C.

Oxidizing properties : No

The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

10. STABILITY AND REACTIVITY

10.1 Reactivity : This product releases methanol.

10.2 Stability : Stable under normal usage conditions.

10.3 Possibility of hazardous reactions : None known.

10.4 Conditions to avoid : Eliminate all possible sources of ignition.

10.5 Materials to avoid : Can react with strong oxidising agents.

10.6 Hazardous decomposition products : Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Silica. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

On contact with eyes : Slightly irritating.

On skin contact : Irritating.

If inhaled : May cause dizziness, drowsiness, confusion, headaches, nausea, and at high concentrations, unconsciousness. Inhalation of large amount may cause systemic adverse effect.

On ingestion : Forms methanol. Small amounts transferred to the mouth by fingers during use should not injure. Swallowing large amounts may cause systemic adverse effects and blindness.

Chronic toxicity:

On skin contact : Repeated or prolonged contact may cause defatting of the skin, leading to dermatitis. Repeated contact can cause sensitisation and allergic dermatitis. Can irritate on prolonged or repeated skin contact. Suspected of damaging the unborn child.
SAFETY DATA SHEET
According to article 31 and Annex II of the EU REACH Regulation

DOW CORNING(R) 1-2577 CONFORMAL COATING

If inhaled: May cause dizziness, drowsiness, confusion, headaches, nausea, and at high concentrations, unconsciousness. Prolonged or repeated inhalation may cause systemic adverse effects. Suspected of damaging the unborn child.

On ingestion: Repeated swallowing may cause systemic adverse effects.

Toxicokinetics, metabolism and distribution: Dangerous amounts can be absorbed through the skin.

1 Based on product test data.
2 Based on test data from similar products.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity effects
No adverse effects on aquatic organisms are predicted.

12.2 Persistence and degradability
Organic solvents may evaporate into the atmosphere, where they degrade. Siloxanes are removed from water by sedimentation or binding to sewage sludge. In soil, siloxanes are degraded. This product hydrolyses in water or moist air, releasing methanol and organosilicons.

12.3 Bioaccumulation
Low potential to bioaccumulate.

12.4 Release to waters / Mobility in soil
Fate and effects in waste water treatment plants:
No adverse effects on bacteria are predicted. The siloxanes in this product do not contribute to the BOD.

13. DISPOSAL CONSIDERATIONS

Product and packaging disposal:
Dispose of in accordance with local regulations. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

14. TRANSPORT INFORMATION

Road / Rail (ADR/RID)

UN No.: UN 1993
Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (Toluene / Methyltrimethoxysilane)
### DOW CORNING(R) 1-2577 CONFORMAL COATING

<table>
<thead>
<tr>
<th>Class</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>Labels</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Sea transport (IMDG)

<table>
<thead>
<tr>
<th>UN No.</th>
<th>UN 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>FLAMMABLE LIQUID, N.O.S.(Toluene / Methyltrimethoxysilane)</td>
</tr>
<tr>
<td>Class</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>Emergency Schedule (EmS)</td>
<td>F-E</td>
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<tr>
<td></td>
<td>S-E</td>
</tr>
<tr>
<td>Labels</td>
<td>Flammable liquids</td>
</tr>
</tbody>
</table>

#### Air transport (IATA)

<table>
<thead>
<tr>
<th>UN No.</th>
<th>UN 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>Flammable liquid, n.o.s.(Toluene / Methyltrimethoxysilane)</td>
</tr>
<tr>
<td>Class</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>Labels</td>
<td>Flammable Liquids</td>
</tr>
</tbody>
</table>

### 15. REGULATORY INFORMATION

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

<table>
<thead>
<tr>
<th>Status</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS</td>
<td>All ingredients listed, exempt or notified (ELINCS).</td>
</tr>
<tr>
<td>TSCA</td>
<td>All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.</td>
</tr>
<tr>
<td>AICS</td>
<td>All ingredients listed, exempt or notified.</td>
</tr>
<tr>
<td>IECSC</td>
<td>All ingredients listed or exempt.</td>
</tr>
<tr>
<td>ENCS/ISHL</td>
<td>Consult your local Dow Corning office.</td>
</tr>
<tr>
<td>PICCS</td>
<td>All ingredients listed, exempt or notified.</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET
According to article 31 and Annex II of the EU REACH Regulation

DOW CORNING(R) 1-2577 CONFORMAL COATING

DSL : All ingredients listed or exempt.
KECL : All ingredients listed, exempt or notified.

16. OTHER INFORMATION

This product safety data sheet was prepared in compliance with article 31 and Annex II of the EU REACH Regulation as well as its relevant amendements, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labelling of dangerous substances and preparations.

It is the responsibility of persons in receipt of this Product Safety Data Sheet to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces a formulation containing the Dow Corning product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from the Dow Corning Product Safety Data Sheet to their own Product Safety Data Sheet in compliance with article 31 and Annex II of the EU REACH Regulation.

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS. Dow Corning shall not be held responsible for any defect in the product covered by this SDS, should the existence of such defect not be detectable considering the current state of scientific and technical knowledge.

As stated above, this Safety Data Sheet has been prepared in compliance with applicable European law. If you purchase this material outside Europe, where compliance laws may differ, you should receive from your local Dow Corning supplier a SDS applicable to the country in which the product is sold and intended to be used. Please note that the appearance and content of the SDS may vary - even for the same product - between different countries, reflecting the different compliance requirements. Should you have any question, please refer to your local Dow Corning supplier.

Source of information: Internal data and publically available information

R11 Highly flammable., R38 Irritating to skin., R43 May cause sensitization by skin contact., R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation., R63 Possible risk of harm to the unborn child., R65 Harmful: May cause lung damage if swallowed., R67 Vapours may cause drowsiness and dizziness.

H225 Highly flammable liquid and vapour., H304 May be fatal if swallowed and enters airways., H315 Causes skin irritation., H317 May cause an allergic skin reaction., H336 May cause drowsiness or dizziness., H361d Suspected of damaging the unborn child.