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

Product identifier

Vitique

Product group: Endprodukt

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

Details of the supplier of the safety data sheet

Company name: DMG Chemisch-Pharmazeutische Fabrik GmbH
Street: Elbgaustraße 248
Place: D-22547 Hamburg
Telephone: +49. (0) 40. 84006-0
Telefax: +49. (0) 40. 84006-222
e-mail: info@dmg-dental.com
Internet: www.dmg-dental.com

SECTION 2: Hazards identification

Classification of the substance or mixture

Indications of danger : Irritant
R-phrases:
Irritating to eyes, respiratory system and skin.
May cause sensitization by skin contact.

Label elements

Danger symbols: Xi - Irritant

Hazardous components which must be listed on the label
Methacrylic esters.

R phrases
36/37/38 Irritating to eyes, respiratory system and skin.
43 May cause sensitization by skin contact.

S phrases
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28 After contact with skin, wash immediately with plenty of Water and soap.
61 Avoid release to the environment. Refer to special instructions / Safety data sheets.
24/25 Avoid contact with skin and eyes.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

SECTION 3: Composition/information on ingredients

Mixtures

Chemical characterization
chemical characterization (preparation): Acrylate.-resin.

SECTION 4: First aid measures

Description of first aid measures
After inhalation
Move victim to fresh air. Put victim at rest and keep warm.

After contact with skin
After contact with skin, wash immediately with: Water and soap.

After contact with eyes
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion
Immediately get medical attention.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

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

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Provide adequate ventilation. Wear suitable protective clothing.

Environmental precautions
Do not empty into drains or the aquatic environment.

Methods and material for containment and cleaning up
Collect mechanically.
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling
Keep container tightly closed. Wear suitable protective clothing and gloves. Avoid contact with eyes.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep container tightly closed in a cool, well-ventilated place.
Store only in original container.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure controls

Protective and hygiene measures
Take off immediately all contaminated clothing. When using do not eat or drink.

Respiratory protection
The following must be prevented: inhalation.

Hand protection
Tested protective gloves are to be worn: Suitable material: NBR (Nitrile rubber).
Eye protection

Tightly sealed safety glasses.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Paste</td>
</tr>
<tr>
<td>Colour</td>
<td>yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>like: ester</td>
</tr>
<tr>
<td>pH-Value</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Test method

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling point</td>
<td>&gt;200 °C</td>
</tr>
<tr>
<td>Zersetzungspunkt</td>
<td>&gt;60 °C</td>
</tr>
<tr>
<td>Vapour pressure (at 20 °C)</td>
<td>1 hPa</td>
</tr>
<tr>
<td>Density (at 20 °C)</td>
<td>1.9 g/cm³</td>
</tr>
<tr>
<td>Water solubility (at 20 °C)</td>
<td>5% g/L</td>
</tr>
<tr>
<td>Vapour density</td>
<td>&gt; 1</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

Conditions to avoid

- heat.
- Light.
- Decomposition takes place from temperatures above: 60 °C

Incompatible materials

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

Hazardous decomposition products

- Can be released in case of fire: Gas / vapours, irritant. (Acrylate., pungent)

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

- LD50: Rat. 1.000 mg/kg

Irritation and corrosivity

- Irritant effect on the eye: strong irritant. Risk of serious damage to eyes.

Sensitising effects

- May cause sensitization by skin contact.

Additional information on tests

- Contains Methacrylic esters.: May produce an allergic reaction.

SECTION 12: Ecological information

Persistence and degradability

- Do not empty into drains or the aquatic environment. Leakage into the environment must be prevented.
- Preparation not tested.

SECTION 13: Disposal considerations
Waste treatment methods

Advice on disposal
Can be burnt together with household waste in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.
Paste: Carry out a burning of hazardous waste according to official regulations.

Waste disposal number of waste from residues/unused products

180106 WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care); wastes from natal care, diagnosis, treatment or prevention of disease in humans; chemicals consisting of or containing dangerous substances
Classified as hazardous waste.

SECTION 14: Transport information

Other applicable information
Not a hazardous material with respect to these transportation regulations.

SECTION 15: Regulatory information

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

National regulatory information
Water contaminating class (D): 2 - water contaminating

SECTION 16: Other information

Full text of R-phrases referred to under sections 2 and 3
36/37/38 Irritating to eyes, respiratory system and skin.
43 May cause sensitization by skin contact.

Full text of H-Statements referred to under sections 2 and 3
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Further Information

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)
Safety Data Sheet

Identification of the substance or preparation

Company/undertaking identification

- **Company name:** DMG Chemisch-Pharmazeutische Fabrik GmbH
- **Street:** Elbgaustraße 248
- **Place:** D-22547 Hamburg
- **Telephone:** +49. (0) 40. 84006-0
- **Telefax:** +49. (0) 40. 84006-222
- **Internet:** www.dmg-dental.com
- **e-mail:** info@dmg-dental.com

Hazards identification

Classification

- Indications of danger: Irritant
- R-phrases:
  - Irritating to eyes, respiratory system and skin.
  - May cause sensitization by skin contact.

Composition/information on ingredients

Chemical characterization (Mixture)

- Chemical characterization (preparation): Acrylate.-resin.

First aid measures

- **After inhalation**
  - Move victim to fresh air. Put victim at rest and keep warm.

- **After contact with skin**
  - After contact with skin, wash immediately with: Water and soap.

- **After contact with eyes**
  - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

- **After ingestion**
  - Immediately get medical attention.

Fire-fighting measures

- Suitable extinguishing media

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

Accidental release measures

- **Personal precautions**
  - Wear suitable protective clothing. Provide adequate ventilation.

- **Environmental precautions**
  - Do not empty into drains or the aquatic environment.

- **Methods for cleaning up/taking up**
  - Collect mechanically.
  - Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
7. Handling and storage

Handling

Advice on safe handling
Keep container tightly closed. Wear suitable protective clothing and gloves. Avoid contact with eyes.

Storage

Requirements for storage rooms and vessels
Keep container tightly closed in a cool, well-ventilated place. Store only in original container.

8. Exposure controls/personal protection

Exposure limit values

Exposure controls

Occupational exposure controls
Ensure adequate ventilation of the storage area.

Protective and hygiene measures
When using do not eat or drink.

Respiratory protection
The following must be prevented: inhalation.

Hand protection
Tested protective gloves are to be worn: Suitable material: NBR (Nitrile rubber).

Eye protection
Tightly sealed safety glasses.

9. Physical and chemical properties

General information

Physical state: liquid
Colour: yellow
Odour: like: ester

Important health, safety and environmental information

Test method
pH-Value (at 20 °C): 3,5

Changes in the physical state

Boiling point: 100 °C
point of decomposition: > 200 °C
Flash point: > 100 °C
Vapour pressure:
(at 20 °C) 23 hPa
Density: 1,1 g/cm³
Solubility in other solvents: Solubility ca. 50 %
Vapour density: > 1

10. Stability and reactivity
11. Toxicological information

Acute toxicity
LD₅₀: Rat. 5500mg/kg

Corrosive and irritant effects
Frequently or prolonged contact with skin may cause dermal irritation. Irritant effect on the eye: Frequently or prolonged contact with skin may cause dermal irritation.

Sensitising effects
May cause sensitization by skin contact.

Additional information on tests
Contains Methacrylates: May produce an allergic reaction. May cause sensitization by skin contact.

12. Ecological information

Ecotoxicity
Aquatic toxicity LC₅₀: > 360 mg/l/48h

Persistence and degradability
Product is partially biodegradable. 50%

Further information
Do not empty into drains or the aquatic environment. Leakage into the environment must be prevented.

13. Disposal considerations

Advice on disposal
Can be burnt together with household waste in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge. Carry out a burning of hazardous waste according to official regulations.

Waste disposal number of waste from residues/unused products
180106 WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care); wastes from natal care, diagnosis, treatment or prevention of disease in humans; chemicals consisting of or containing dangerous substances Classified as hazardous waste.

14. Transport information

Other applicable information
Not a hazardous material with respect to these transportation regulations.

15. Regulatory information

Labelling
Danger symbols: Xi - Irritant
Hazardous components which must be listed on the label

Methacrylic esters.

**R phrases**

36/37/38 Irritating to eyes, respiratory system and skin.

43 May cause sensitization by skin contact.

**S phrases**

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

28 After contact with skin, wash immediately with plenty of water and soap.

**National regulatory information**

Water contaminating class (D): 2 - water contaminating

**16. Other information**

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

36/37/38 Irritating to eyes, respiratory system and skin.

43 May cause sensitization by skin contact.

**Further Information**

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Etching Gel

Product group: Endprodukt

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

1.3. Details of the supplier of the safety data sheet

Company name: DMG Chemisch-Pharmazeutische Fabrik GmbH
Street: Elbgaustraße 248
Place: D-22547 Hamburg
Telephone: +49. (0) 40. 84006-0
Telefax: +49. (0) 40. 84006-222
e-mail: info@dmg-dental.com
Internet: www.dmg-dental.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: C - Corrosive

R phrases:
Causes burns.

GHS classification
Hazard categories:
Skin corrosion/irritation: Skin Corr. 1B
Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:
Causes severe skin burns and eye damage.

2.2. Label elements

Hazardous components which must be listed on the label
Phosphoric acid ... %; orthophosphoric acid

Signal word: Danger
Pictograms: GHS05

Hazard statements
H314 Causes severe skin burns and eye damage.

Precautionary statements
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization
PHOSPHORIC ACID
Safety Data Sheet

according to Regulation (EC) No 1907/2006

Etching Gel

Print date: 01.04.2014
Product code: 6100_GHS

Page 2 of 6

Hazardous components

<table>
<thead>
<tr>
<th>EC No</th>
<th>Chemical name</th>
<th>Classification</th>
<th>Quantity</th>
<th>CAS No</th>
<th>GHS classification</th>
<th>REACH No</th>
</tr>
</thead>
<tbody>
<tr>
<td>231-633-2</td>
<td>Phosphoric acid; %; orthophosphoric acid</td>
<td>30 - 45 %</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7664-38-2</td>
<td>C - Corrosive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>015-011-00-6</td>
<td>Skin Corr. 1B; H314</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation
not applicable

After contact with skin
After contact with skin, wash immediately with: Water and soap.

After contact with eyes
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion
Immediately get medical attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Additional information
Material is not combustible.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Keep container tightly closed. Wear suitable protective clothing and gloves. Avoid contact with eyes.

Further information on handling
Ensure adequate ventilation of the storage area.

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.
Store only in original container.

Advice on storage compatibility
Do not store together with: Alkalis (alkalis). metal.
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>7664-38-2</td>
<td>Orthophosphoric acid</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Protective and hygiene measures
When using do not eat or drink.

Respiratory protection
The following must be prevented: inhalation. Exceeding critical value: Filter respirator (full mask or mouth-piece) with filter: A

Hand protection
Wear suitable gloves: NBR (Nitrile rubber). Butyl rubber.

Eye protection
Tightly sealed safety glasses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Jelly
Colour: blue

Test method
pH-Value: ca. 1

Changes in the physical state
Boiling point: 100 °C
Flash point: not applicable
Lower explosion limits: not applicable
Upper explosion limits: not applicable
Ignition temperature: not applicable
Vapour pressure: 20 hPa
(at 23 °C)
Density: 1.4 g/cm³
Water solubility: easily soluble.
Vapour density: < 1

SECTION 10: Stability and reactivity

10.5. Incompatible materials
Alkalis (alkalis).
SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity
LD50: Rat. >810mg/kg

Irritation and corrosivity
Irritant effect on the eye: Causes burns.
After skin contact: Causes burns.

SECTION 12: Ecological information

12.1. Toxicity

<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>7664-38-2</td>
<td>Phosphoric acid ... %; orthophosphoric acid</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>138 mg/l</td>
<td>96</td>
<td>Gambusia affinis</td>
<td></td>
</tr>
</tbody>
</table>

Further information
Do not empty into drains or the aquatic environment. Leakage into the environment must be prevented.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal
Remove according to the regulations.

Waste disposal number of waste from residues/unused products
180106 WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care); wastes from natal care, diagnosis, treatment or prevention of disease in humans; chemicals consisting of or containing dangerous substances
Classified as hazardous waste.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: 1805
14.2. UN proper shipping name: PHOSPHORIC ACID SOLUTION
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8

Classification code: C1
Limited quantity: 5 L
Transport category: 3
Hazard No: 80
Tunnel restriction code: E
Other applicable information (land transport)

E1

Marine transport (IMDG)

14.1. UN number: 1805
14.2. UN proper shipping name: PHOSPHORSÄURE, LÖSUNG
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8

Special Provisions: 223
Limited quantity: 5 L
EmS: F-A, S-B

Other applicable information (marine transport)

E1

Air transport (ICAO)

14.1. UN number: 1805
14.2. UN proper shipping name: PHOSPHORSÄURE, LÖSUNG
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8

Special Provisions: A3
Limited quantity Passenger: 1 L
IATA-packing instructions - Passenger: 852
IATA-max. quantity - Passenger: 5 L
IATA-packing instructions - Cargo: 856
IATA-max. quantity - Cargo: 60 L

Other applicable information (air transport)

E1
: Y841

14.5. Environmental hazards

Dangerous for the environment: no

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

SECTION 16: Other information

Full text of R phrases referred to under Sections 2 and 3
34 Causes burns.
Full text of H statements referred to under Sections 2 and 3

H314 Causes severe skin burns and eye damage.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)
# Safety Data Sheet

Silan A

**Product code:** 6125_GHS

**Print date:** 01.04.2014

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

---

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

### 1.1. Product identifier

<table>
<thead>
<tr>
<th>Silan A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product group:</td>
</tr>
<tr>
<td>CAS No:</td>
</tr>
<tr>
<td>Index No:</td>
</tr>
<tr>
<td>EC No:</td>
</tr>
</tbody>
</table>

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

### 1.3. Details of the supplier of the safety data sheet

| Company name: | DMG Chemisch-Pharmazeutische Fabrik GmbH |
| Street: | Elbgausträße 248 |
| Place: | D-22547 Hamburg |
| Telephone: | +49. (0) 40. 84006-0 |
| Telefax: | +49. (0) 40. 84006-222 |
| e-mail: | info@dmg-dental.com |
| Internet: | www.dmg-dental.com |

---

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

- **Indications of danger:** F - Highly flammable
- **R phrases:** Highly flammable.

**GHS classification**

- **Hazard Statements:** Highly flammable liquid and vapour.

### 2.2. Label elements

| Signal word: | Danger |
| Pictograms: | GHS02 |

**Hazard statements**

- H225: Highly flammable liquid and vapour.

**Precautionary statements**

- P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

---

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

- **Chemical characterization**
  - Ethanol.
### Hazardous components

<table>
<thead>
<tr>
<th>EC No</th>
<th>CAS No</th>
<th>Chemical name</th>
<th>Classification</th>
<th>GHS classification</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>200-578-6</td>
<td></td>
<td>ethanol, ethyl alcohol</td>
<td></td>
<td></td>
<td>65 – 75 %</td>
</tr>
<tr>
<td>64-17-5</td>
<td></td>
<td>F - Highly flammable</td>
<td>R11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>603-002-00-5</td>
<td></td>
<td>Flam. Liq. 2; H225</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>231-633-2</td>
<td></td>
<td>Phosphoric acid 231-633-2, orthophosphoric acid</td>
<td>R34</td>
<td></td>
<td>&lt; 5 %</td>
</tr>
<tr>
<td>7664-38-2</td>
<td></td>
<td>C - Corrosive</td>
<td>R34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>615-011-00-6</td>
<td></td>
<td>Skin Corr. 1B; H314</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- **After inhalation**
  - Move victim to fresh air. Put victim at rest and keep warm.

- **After contact with skin**
  - After contact with skin, wash immediately with: Water and soap. Change contaminated clothing.

- **After contact with eyes**
  - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

- **After ingestion**
  - If swallowed, immediately drink: Water. Consult physician.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- **Suitable extinguishing media**

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

#### 5.2. Special hazards arising from the substance or mixture

- Concentrated vapors are heavier than air. Vapours may form explosive mixtures with air.

#### 5.3. Advice for firefighters

- In case of fire: Wear self-contained breathing apparatus.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

- Keep away from sources of ignition - No smoking.
  - The following must be prevented: inhalation. skin contact. Eye contact.

#### 6.2. Environmental precautions

- Do not empty into drains or the aquatic environment.

#### 6.3. Methods and material for containment and cleaning up

- Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling
Advice on safe handling
Keep away from sources of ignition - No smoking. Provide adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep in a cool place.

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>
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</thead>
<tbody>
<tr>
<td>64-17-5</td>
<td>Ethanol</td>
<td>1000</td>
<td>1920</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
<tr>
<td>7664-38-2</td>
<td>Orthophosphoric acid</td>
<td></td>
<td></td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Protective and hygiene measures
When using do not eat or drink.

Respiratory protection
The following must be prevented: inhalation. Exceeding critical value: Filter respirator (full mask or mouth-piece) with filter: A

Hand protection
Tested protective gloves are to be worn: Suitable material: NBR (Nitrile rubber).

Eye protection
Tightly sealed safety glasses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: colourless-transparent
Odour: characteristic

Test method
pH-Value: ca. 5

Changes in the physical state
Boiling point: ca. 80 °C
Flash point: 12 °C
Water solubility: complete miscible

SECTION 10: Stability and reactivity

10.4. Conditions to avoid
heat.
10.5. Incompatible materials

Oxidizing agents. Alkali metals.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

**Acute toxicity**

<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>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5</td>
<td>ethanol, ethyl alcohol</td>
<td>oral</td>
<td>LD50</td>
<td>6200 mg/kg</td>
<td>Rat</td>
<td>IUCLID</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h)</td>
<td>LC50</td>
<td>95.6 mg/l</td>
<td>Rat</td>
<td>RTECS</td>
</tr>
</tbody>
</table>

**Irritation and corrosivity**

In case of prolonged or frequently repeated skin contact: irritant.; Following eye contact: irritant.

SECTION 12: Ecological information

12.1. Toxicity

**Acute fish toxicity** (Leuciscus idus): LC50: > 8140 mg / l / 48 h (Ethanol);

**Acute Daphnia toxicity** (Daphnia magna): EC50: 9268 - 14221 mg / l / 48 h

<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>64-17-5</td>
<td>ethanol, ethyl alcohol</td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>9268 - 14221</td>
<td>48</td>
<td>Daphnia magna</td>
<td>IUCLID</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

Easily biodegradable (concerning to the criteria of the OECD)

12.3. Bioaccumulative potential

**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>64-17-5</td>
<td>ethanol, ethyl alcohol</td>
<td>-0.31</td>
</tr>
</tbody>
</table>

SECTION 13: Disposal considerations

13.1. Waste treatment methods

**Advice on disposal**

Remove according to the regulations.

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

180106 WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care); wastes from natal care, diagnosis, treatment or prevention of disease in humans; chemicals consisting of or containing dangerous substances

Classified as hazardous waste.

SECTION 14: Transport information
## Land transport (ADR/RID)

14.1. UN number: 1170
14.2. UN proper shipping name: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3

<table>
<thead>
<tr>
<th>Classification code:</th>
<th>F1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Provisions:</td>
<td>144 601</td>
</tr>
<tr>
<td>Limited quantity:</td>
<td>1 L</td>
</tr>
<tr>
<td>Transport category:</td>
<td>2</td>
</tr>
<tr>
<td>Hazard No:</td>
<td>33</td>
</tr>
<tr>
<td>Tunnel restriction code:</td>
<td>D/E</td>
</tr>
</tbody>
</table>

**Other applicable information (land transport)**

E2

## Marine transport (IMDG)

14.1. UN number: 1170
14.2. UN proper shipping name: ETHANOL, LÖSUNG (ETHYLALKOHOL, LÖSUNG)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3

| Special Provisions: | 144 |
| Limited quantity:   | 3 L |
| EmS:                | F-E, S-D |

**Other applicable information (marine transport)**

E2

## Air transport (ICAO)

14.1. UN number: 1170
14.2. UN proper shipping name: ETHANOL, LÖSUNG (ETHYLALKOHOL, LÖSUNG)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3

| Special Provisions: | A3 |
| Limited quantity Passenger: | 1 L |
| IATA-packing instructions - Passenger: | 353 |
| IATA-max. quantity - Passenger: | 5 L |
| IATA-packing instructions - Cargo: | 364 |
| IATA-max. quantity - Cargo: | 60 L |
14.5. Environmental hazards

Dangerous for the environment: no

SECTION 15: Regulatory information

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

National regulatory information

SECTION 16: Other information

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

11 Highly flammable.
34 Causes burns.

Full text of H statements referred to under Sections 2 and 3

H225 Highly flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Silan B

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

1.3. Details of the supplier of the safety data sheet
Company name: DMG Chemisch-Pharmazeutische Fabrik GmbH
Street: Elbgastraße 248
Place: D-22547 Hamburg
Telephone: +49. (0) 40. 84006-0
Telefax: +49. (0) 40. 84006-222
e-mail: info@dmg-dental.com
Internet: www.dmg-dental.com

SECTION 2: Hazards identification

2.2. Label elements
Signal word: Warning
Pictograms: GHS07

Hazard statements
H335 May cause respiratory irritation.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.

Precautionary statements
P337+P313 If eye irritation persists: Get medical advice/attention.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.

SECTION 3: Composition/information on ingredients

3.1. Substances
Chemical characterization
Silane

SECTION 4: First aid measures

4.1. Description of first aid measures
After inhalation
Move victim to fresh air. Put victim at rest and keep warm.

After contact with skin
After contact with skin, wash immediately with: Water and soap.

After contact with eyes
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion
Immediately get medical attention.
SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear suitable protective clothing. Provide adequate ventilation.

6.2. Environmental precautions
Do not empty into drains or the aquatic environment.

6.3. Methods and material for containment and cleaning up
Collect mechanically.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Keep container tightly closed. Wear suitable protective clothing and gloves. Avoid contact with eyes.

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.
Store only in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Occupational exposure controls
Ensure adequate ventilation of the storage area.

Protective and hygiene measures
When using do not eat or drink.

Respiratory protection
The following must be prevented: inhalation.

Hand protection
Tested protective gloves are to be worn. Suitable material: NBR (Nitrile rubber).

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>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless - yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
</tbody>
</table>

Test method

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling point</td>
<td>250 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>110 °C</td>
</tr>
<tr>
<td>Density</td>
<td>1.04 g/cm³</td>
</tr>
<tr>
<td>Water solubility</td>
<td>not miscible</td>
</tr>
<tr>
<td>Vapour density</td>
<td>&gt; 1</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

10.4. Conditions to avoid

heat.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

Can be released in case of fire: Gas / vapours, irritant. (Acrylate., pungent)
Decomposition under formation of: Methanol.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

LD50: (Rat): > 5000 mg/kg
Frequently or prolonged contact with skin may cause dermal irritation.

Irritation and corrosivity

Frequently or prolonged contact with skin may cause dermal irritation.
Irritant effect on the eye:

Sensitising effects

May cause sensitization by skin contact.

Additional information on tests

May produce an allergic reaction.

SECTION 12: Ecological information

12.1. Toxicity

Aquatoxicity:

LC50: (Brachydanio rerio): > 1024 mg/l/96h

12.2. Persistence and degradability

Product is partially biodegradable.

Further information

Do not empty into drains or the aquatic environment. Leakage into the environment must be prevented.

SECTION 13: Disposal considerations
13.1. Waste treatment methods

Advice on disposal
Can be burnt together with household waste in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.
Paste: Carry out a burning of hazardous waste according to official regulations.

Waste disposal number of waste from residues/unused products
180106 WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care); wastes from natal care, diagnosis, treatment or prevention of disease in humans; chemicals consisting of or containing dangerous substances
Classified as hazardous waste.

SECTION 14: Transport information

Other applicable information
Not a hazardous material with respect to these transportation regulations.

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): 2 - water contaminating

SECTION 16: Other information

Full text of R phrases referred to under Sections 2 and 3
36/37/38 Irritating to eyes, respiratory system and skin.
43 May cause sensitisation by skin contact.

Full text of H statements referred to under Sections 2 and 3
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Further Information
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