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

1.1 Product identifier

Trade name: PrograMill Fluid

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

No further relevant information available.

Application of the substance / the mixture Coolant/ Cutting solution

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
Ivoclar Vivadent AG
Bendererstrasse 2
FL-9494 Schaan
PRINCIPALITY OF LIECHTENSTEIN

Tel: +423 235 35 35
Fax: +423 235 33 60

Further information obtainable from:
Regulatory Affairs
sds@ivoclarvivadent.com

1.4 Emergency telephone number: +423 / 235 33 13 (Ivoclar Vivadent AG, FL-9494 Schaan, Liechtenstein)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS07

Signal word Warning

Hazard statements
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.
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 water.
P337+P313 If eye irritation persists: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Trade name: PrograMill Fluid

2.3 Other hazards

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>carboxylic acids, neutralized with alkanolamines</td>
<td>10-&lt;25%</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315; Eye Irrit. 2, H319</td>
<td></td>
</tr>
<tr>
<td>Alkanolamin</td>
<td>2.5-&lt;10%</td>
</tr>
<tr>
<td>STOT RE 2, H373; Acute Tox. 4, H302; Skin Irrit. 2, H319; Eye Irrit. 2, H319</td>
<td></td>
</tr>
<tr>
<td>benzotriazole</td>
<td>0.1-&lt;2.5%</td>
</tr>
<tr>
<td>Aquatic Chronic 2, H411; Acute Tox. 4, H302; Eye Irrit. 2, H319</td>
<td></td>
</tr>
<tr>
<td>dicyclohexylamine</td>
<td>0.1-&lt;1%</td>
</tr>
<tr>
<td>Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302</td>
<td></td>
</tr>
<tr>
<td>Poly Quaternär Ammoniumchlorid</td>
<td>0.1-&lt;2.5%</td>
</tr>
<tr>
<td>Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Acute Tox. 4, H332</td>
<td></td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
After inhalation:
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.

After skin contact:
Immediately rinse with water.

After eye contact:
Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:
Rinse out mouth and then drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture No further relevant information available.

5.3 Advice for firefighters

Protective equipment: No special measures required.

Additional information Cool endangered receptacles with water spray.

(Contd. on page 3)
SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions:
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow to enter sewers/surface or ground water.
- 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Ensure adequate ventilation.
- 6.4 Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
  Only adequately trained personnel should handle this product.
  For use in dentistry only.
- 7.2 Conditions for safe storage, including any incompatibilities
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- 8.1 Control parameters
- 8.2 Exposure controls
  Personal protective equipment:
  General protective and hygienic measures:
  Usual hygienic measures for dental practice and dental laboratories.
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing
  Wash hands before breaks and at the end of work.
  Avoid contact with the eyes and skin.
  Respiratory protection:
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
### Protection of hands:

**Protective gloves**

After use of gloves apply skin-cleaning agents and skin cosmetics.

**Material of gloves**

Nitrile rubber, NBR

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

### Eye protection:

**Tightly sealed goggles**

### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value/Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>9.1 Information on basic physical and chemical properties</strong></td>
<td></td>
</tr>
<tr>
<td><strong>General Information</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Appearance:</strong></td>
<td></td>
</tr>
<tr>
<td>Form:</td>
<td>Fluid</td>
</tr>
<tr>
<td>Colour:</td>
<td>Yellow-brown</td>
</tr>
<tr>
<td>Odour:</td>
<td>Weak, characteristic</td>
</tr>
<tr>
<td>Odour threshold:</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>pH-value (50 g/l) at 20 °C:</strong></td>
<td>8.7 - 9.0 (DIN 51369 / ASTM D1287)</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range:</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>&gt; 100 °C</td>
</tr>
<tr>
<td><strong>Flash point:</strong></td>
<td>144 °C (ISO 2592)</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous):</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Ignition temperature:</strong></td>
<td>324 °C (DIN 51794 / ASTM E695)</td>
</tr>
<tr>
<td><strong>Self-igniting:</strong></td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td><strong>Danger of explosion:</strong></td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td><strong>Explosion limits:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper:</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapour pressure:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Density at 20 °C:</strong></td>
<td>1.06 g/cm³ (ISO 3104 / ASTM D445)</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with water:</strong></td>
<td>Not determined.</td>
</tr>
</tbody>
</table>
Trade name: PrograMill Fluid

- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic: Not determined.
  - Kinematic at 40 °C: 5.9 mm²/s (ISO 3104 / ASTM D445)
- **9.2 Other information**
  - No further relevant information available.

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** Stable under normal handling and storage conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong acids and oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
  - Carbon monoxide and carbon dioxide
  - Nitrogen oxides (NOx)

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
  - **Acute toxicity** Based on available data, the classification criteria are not met.
  - **LD/LC50 values relevant for classification:**
    - **CAS:** 101-83-7 dicyclohexylamine
    - **Oral LD50** 375 mg/kg (rat)
  - **Skin corrosion/irritation**
    - Causes skin irritation.
  - **Serious eye damage/irritation**
    - Causes serious eye irritation.
  - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
  - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
  - **Carcinogenicity** Based on available data, the classification criteria are not met.
  - **Reproductive toxicity** Based on available data, the classification criteria are not met.
  - **STOT-single exposure** Based on available data, the classification criteria are not met.
  - **STOT-repeated exposure** Based on available data, the classification criteria are not met.
  - **Aspiration hazard** Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

- **12.1 Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **12.2 Persistence and degradability** No further relevant information available.
  - **12.3 Bioaccumulative potential** No further relevant information available.
  - **12.4 Mobility in soil** No further relevant information available.
  - **Ecotoxicological effects:**
  - **Remark:** Harmful to fish
  - **Additional ecological information:**
  - **General notes:**
    - Harmful to aquatic organisms
    - Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

(Contd. on page 6)
**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
  - **Recommendation**
    Must not be disposed together with household garbage. Do not allow product to reach sewage system. Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.

- **European waste catalogue**
  - 12 01 10* synthetic machining oils
  - 12 01 09* machining emulsions and solutions free of halogens

- **Uncleaned packaging:**
  - **Recommendation:** Disposal must be made according to official regulations.
  - **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**SECTION 14: Transport information**

- **14.1 UN-Number**
  - ADR, RID, ADN, ADN, IMDG, IATA Void

- **14.2 UN proper shipping name**
  - ADR, RID, ADN, ADN, IMDG, IATA Void

- **14.3 Transport hazard class(es)**
  - ADR, RID, ADN, ADN, IMDG, IATA Void
  - Class Void

- **14.4 Packing group**
  - ADR, RID, ADN, IMDG, IATA Void

- **14.5 Environmental hazards:** Not applicable.

- **14.6 Special precautions for user** Not applicable.

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

- **Transport/Additional information:** Product is not classified as a dangerous good for transport (ADR, IMDG, IATA).

- **UN "Model Regulation":** Void

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - Directive 2012/18/EU
  - Named dangerous substances - ANNEX I None of the ingredients is listed.
  - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
**Trade name:** PrograMill Fluid

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant phrases**

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3