

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

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**Product name:** Vertex™ Thermo Fusing Liquid

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**Address/Phone no.:** Vertex-Dental B.V.  
P.O.Box 10  
3700 AA Zeist  
The Netherlands  
[info@vertex-dental.com](mailto:info@vertex-dental.com)

**Emergency Phone No.:** +31 30 6976749 (only available during office hours)

**Local Contact Details:**

**Local Emergency Phone no.:**

**Intended Use:** Primer for adhesion improvement between polyamide surfaces and/or acrylic surface for professional dental work.

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## 2. HAZARDS IDENTIFICATION

### Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flammable liquids (Category 2)  
Acute Toxicity, Oral (Category 4)  
Specific target organ toxicity – single exposure (Category 3)  
Skin irritation (Category 2)  
Eye irritation (Category 2)  
Serious eye damage (Category 1)  
Specific target organ toxicity – single exposure (Category 3)

### Classification according to EU Directives 67/548/EEC or 1999/45/EC

Highly flammable. Harmful if swallowed. Irritating to respiratory system and skin. Irritating to eyes. Risk of serious damage to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

### Label elements

#### Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



**Signal word:** Danger

**Product name:** Vertex™ Thermo Fusing Liquid

**Hazard statement(s)**

H225	Highly Flammable and vapour,
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

**Precautionary statement(s)**

P210	Keep away from heat/ sparks/ open flames/ hot surfaces. – No smoking.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapour/ spray.
P280	Wear protective gloves/ 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.

**Supplement Hazard Information (EU)**

EUH066	Repeated exposure may cause skin dryness or cracking.
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**According to European Directive 67/548/EEC as amended**

**Hazard symbol (s)**



**R-phrases(s)**

R10	Flammable.
R11	Highly flammable.
R20	Harmful by inhalation.
R22	Harmful if swallowed.
R36	Irritating to eyes.
R36/37	Irritating to eyes and respiratory system.
R37/38	Irritating to respiratory system and skin.
R41	Risk of serious damage to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

**S-phrases(s)**

S7	Keep container tightly closed.
S7/9	Keep container tightly closed and in a well-ventilated place,
S13	Keep away from food drink and animal feedingstuffs.
S16	Keep away from sources of ignition – No smoking.
S24/25	Avoid contact with skin and eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39	Wear suitable gloves and eye/ face protection.
S46	If swallowed, seek medical advice immediately and show this container of label.

**Other hazards** None

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	Identifiers	% w/w	Hazard Classification and Category	Hazard statements
n-Butyl Alcohol	EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6	1 - 5	Flam. Liq. 3 Acute Tox. 4* STOT SE 3 Skin Irrit. 2 Eye Dam. 1 STOT SE 3	H226 H302 H335 H315 H318 H336
Acetone	EC: 200-662-2 CAS: 67-64-1 Index: 606-001-00-8	10-30	Flam. Liq. 2 Eye Irrit. 2 STOT SE 3	H225 H319 H336
IsoPropyl Alcohol	EC: 200-661-7 CAS: 67-63-0 Index: 603-117-00-0	10-30	Flam. Liq. 2 Eye Irrit. 2 STOT SE 3	H225 H319 H336
Silicic Acid Tetraethylester homopolymer (H <sub>4</sub> SiO <sub>4</sub> )	EC: 234-324-0 CAS: 26352-16-9 Index:	1 - 5	Flam. Liq. 3 Acute Tox. 4 Eye Irrit. 2 STOT SE 3	H226 H332 H319 H335

### 4. FIRST AID MEASURES

#### Description of first aid measures

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

Inhalation: If breathed, move person into fresh air. Of not breathing, give artificial respiration. Consult a physician.

Skin contact: Wash off with soap and plenty of water. If irritation occurs apply olive oil to reduce it. If irritation continues, Consult a physician.

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingestion : Do NOT induce vomiting. Carefully water down with ½ glass of water or milk. Never give anything by mouth to an unconscious person. Consult a physician.

Most important symptoms and effects, both acute and delayed:

Drying, cracking of the skin, Skin irritation.

Central nervous system depression, prolonged or repeated exposure can cause: nausea, headache, vomiting, narcosis, drowsiness, overexposure may cause mild reversible liver effects.

### 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or CO<sub>2</sub>.

Specific hazards during: Carbon oxides.

Advice for fire fighters: Wear self contained breathing apparatus for fire fighting if necessary.

Further information: In case of fire: Evacuate area. Fight fire remotely to the risk of explosion. Use water spray to cool unopened containers.

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## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	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.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Cleaning methods	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according local regulations (see section 13).

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## 7. HANDLING AND STORAGE

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 build up of electrostatic charge.
Storage	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Container which are opened must be carefully resealed and kept upright to prevent leakage. Keep away from oxidising agents.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

#### 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 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.

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### Body protection

Impervious clothing, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according the concentration and amount of dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respiratory with type ABEK (EN14387) 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 CEN (EU).

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form	Liquid
Colour	Light yellow to brown
Odour	Pungent / solvent
Odour threshold	100 ppm

### Safety data

PH	Not applicable
Melting point	Not applicable
Boiling point	95°C
Freezing point	-34°C
Flash point	Not applicable
Ignition temperature	Not determined
Vapour pressure	22mm HG @ 20°C
Vapour density	3.2 g/cm <sup>3</sup> (Air = 1)
Specific gravity	0.8 (Water = 1)
Density	0.855 kg/m <sup>3</sup>
Water solubility	Slowly hydrolyze @ 20°C
Organic solvent solubility	Soluble, aromatic solvent
% Volatile by volume	83%
Evaporation rate	> 1 (Butyl Acetate = 1)
Acid/Alkalinity	-7 MEG/G
VOC (Epa Meth. 24)	696 g/l

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## 10. STABILITY AND REACTIVITY

Reactivity	No data available.
Chemical stability	Stable
Possibility of hazardous reactions	Hazardous polymerization will not occur.
Conditions to avoid	Heat, flames, sparks. Extremes of temperature and direct sunlight.
Incompatible materials	Oxidizing agents.
Hazardous decomposition products	Carbon Monoxide, Carbon Dioxide, Silicon Dioxide, Oxides of Nitrogen

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## 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

### Acute toxicity

LD50 Oral	5000	mg/kg	(rat)
LC50 inhalation	5320	ppm	(8hr / rat)
LD50 dermal	14000	mg/kg	(rabbit)
Other:	Tested for acute oral, dermal and inhalation.		

### Ames test

Industry Secret element	
Acute LD50 Oral	n.a.
Acute LD50 Dermal	n.a.
Acute LC50 inhalation	n.a.
Other:	None

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## 12. ECOLOGICAL INFORMATION

Ecotoxicological Information No current data available.

Chemical fate information No current data available.

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## 13. DISPOSAL CONSIDERATIONS

Disposal method Disposal should be made in accordance with federal, state and local guidelines.

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## 14. TRANSPORT INFORMATION

UN number	UN1993
UN proper shipping name	Flammable liquid Nos. (contains acetone)
Transport hazard class(es)	
ADR/RID	3
IMDG	Flammable 3.2
IATA	3
Packaging group	II

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## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

### Chemical safety assessment

No data available.

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## 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable in the product with regard to appropriate safety precautions.

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Places marked by || have been amended form the last version.

This is the end of MSDS ID: TF-L-00-UK