



**Safety data sheet**  
According to 1907/2006/EC, Article 31

Printing date 02.12.2017

Version number 3

Revision: 02.12.2017

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

- **1.1 Product identifier**
- **Trade name:** PULPOFLUORANE
- **Article number / formula:** 290S
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation :** dental product
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier:**  
IVOCLAR VIVADENT LTD.  
12 Omega Street, Rosedale, Auckland 0632, New Zealand  
PO Box 303011, North Harbour, Auckland 0751, New Zealand  
Telephone: +649 914 9999  
Fax: +649 914 9990
  
- **orders.nz@ivoclarvivadent.com**  
**http://www.ivoclarvivadent.co.nz**
- **1.4 Emergency telephone number:**  
0800 764 766 (National Poisons Centre)

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008 :**  
Aerosol 3 H229 Pressurised container: May burst if heated.
- **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** Not classified as hazardous
- **Signal word** Warning
- **Hazard statements**  
H229 Pressurised container: May burst if heated.
- **Precautionary statements**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P251 Do not pierce or burn, even after use.  
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- **Additional information:**  
3.4000001 % by mass of the contents are flammable
- **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: consisting of the following components.

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**· Dangerous components:**

CAS: 811-97-2 EINECS: 212-377-0 Reg.nr.: 01-2119459374-33	1,1,1,2-tetrafluoroethane ⚠ Press. Gas (Comp.), H280	50-100%
CAS: 115-10-6 EINECS: 204-065-8 Index number: 603-019-00-8 RTECS: PM 4780000 Reg.nr.: 01-2119472128-37	dimethyl ether ⚠ Flam. Gas 1, H220; Press. Gas (Comp.), H280	<5%

· SVHC No

 · **Additional information:** For the wording of the listed risk phrases, refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** No special measures required.
- **After excessive inhalation:** Provide fresh air; consult a doctor in case of medical complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult a doctor.
- **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 Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures :** Not required.
- **6.2 Environmental precautions:** Do not allow the product to enter sewers/ surface water or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb liquid components with liquid-binding material.
- **6.4 Reference to other sections :**  
No dangerous substances are released.  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protective equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling :** No special measures required.

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- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **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 section 7.
- **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

**CAS: 811-97-2 1,1,1,2-tetrafluoroethane (50-100%)**

WEL (Great Britain) Long-term value: 4240 mg/m<sup>3</sup>, 1000 ppm

MAK (Switzerland) Long-term value: 4200 mg/m<sup>3</sup>, 1000 ppm  
SSc;

**CAS: 115-10-6 dimethyl ether (<5%)**

WEL (Great Britain) Short-term value: 958 mg/m<sup>3</sup>, 500 ppm

Long-term value: 766 mg/m<sup>3</sup>, 400 ppm

IOELV (EU) Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

MAK (Switzerland) Long-term value: 1910 mg/m<sup>3</sup>, 1000 ppm

· **Additional information:**

The most current valid lists have been used as a basis for the production of this document.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

· **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:** Not required.

· **Gloves material :** -

· **Eye protection:** Not required.

**SECTION 9: Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Aerosol

Colour: According to product specification

· **Odour:** Characteristic

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point: Undetermined.

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<b>Initial boiling point and boiling range:</b>	-26 °C
· <b>Flash point:</b>	Not applicable, as aerosol.
· <b>Flammability (solid, gas):</b>	Not applicable.
· <b>Ignition temperature:</b>	Not applicable, as aerosol.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto-ignition temperature:</b>	Product is not self igniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	5716 hPa
· <b>Density at 20 °C:</b>	1,20679 g/cm <sup>3</sup>
· <b>Relative density :</b>	Not determined.
· <b>Vapour density :</b>	Not determined.
· <b>Evaporation rate :</b>	Not applicable.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Segregation coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>VOC (EC)</b>	3.40 %
· <b>9.2 Other information :</b>	No further relevant information available.

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions :** No dangerous reactions known.
- **10.4 Conditions to avoid :** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

**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: 115-10-6 dimethyl ether**

Inhalative	LC50/4 h	308 mg/l (rat)
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- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eyes:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitization** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects :** No further relevant information available.

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation :**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

- |                                       |                         |
|---------------------------------------|-------------------------|
| · <b>14.1 UN-Number</b>               |                         |
| · <b>ADR, IMDG, IATA</b>              | UN1950                  |
| · <b>14.2 UN proper shipping name</b> |                         |
| · <b>ADR</b>                          | UN1950 AEROSOLS         |
| · <b>IMDG</b>                         | AEROSOLS                |
| · <b>IATA</b>                         | AEROSOLS, non-flammable |

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**· 14.3 Transport hazard class(es)**

· ADR



· Class 2 5A Gases.  
· Label 2.2

· IMDG, IATA



· Class 2.2  
· Label 2.2

**· 14.4 Packing group**

· ADR, IMDG, IATA Not classified as hazardous for transport

**· 14.5 Environmental hazards:**

· Marine pollutant: No

**· 14.6 Special precautions for user**

· Danger code (Kemler): -  
· EMS Number: F-D,S-U  
· Stowage Code SW1 Protected from sources of heat.  
SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.  
· Segregation Code SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

**· 14.7 Transport in bulk according to Annex II of**

Marpol and the IBC Code Not applicable.

**· Transport/Additional information:**

· ADR

· Limited quantities (LQ) 1L  
· Excepted quantities (EQ) Code: E0  
Not permitted as Excepted Quantity  
· Transport category 3  
· Tunnel restriction code E

· IMDG

· Limited quantities (LQ) 1L  
· Excepted quantities (EQ) Code: E0  
Not permitted as Excepted Quantity

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**· UN "Model Regulation": UN 1950 AEROSOLS, 2.2****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
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**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**

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

**· Classification according to Regulation (EC) No 1272/2008**

Aerosols | Bridging principles

**· 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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases – Category 1

Aerosol 3: Aerosols – Category 3

Press. Gas (Comp.): Gases under pressure – Compressed gas