



# Safety Data Sheet

KaVo. Dental Excellence.

according to Regulation (EC) No 1907/2006

## KaVo DRYspray

Revision date: 10.11.2017

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

#### 1.1. Product identifier

KaVo DRYspray

#### **Product code:**

1.007.0570

1.007.0580

#### **Further trade names**

DRYspray®, DRYspray 2117, DRYspray 2117P

REACH Registration Number: 01-0000019758-54-XXXX

CAS No: 29118-24-9

EC No: 471-480-0

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

##### **Use of the substance/mixture**

For cleaning up.

The product is intended for professional use.

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

Company name: Kaltenbach & Voigt GmbH

Street: Bismarckring 39

Place: D-88400 Biberach

Telephone: +49 (0) 7351 56 0

Telefax: + 49 (0) 7351 56 1488

e-mail: sdb@kavo.com

e-mail (Contact person): support@gefahrstoff.com

Internet: <http://www.kavo.com/>

Responsible Department: Questions concerning SDB: PES-Ingenieurgesellschaft mbH

#### 1.4. Emergency telephone number:

+49 (0) 7351 56 4000 (24 h)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### **Regulation (EC) No. 1272/2008**

Hazard categories:

Gases under pressure: Liquefied gas

Hazard Statements:

Contains gas under pressure; may explode if heated.

<= 1 % by mass of the contents are flammable.

Chemical heat of combustion in kJ/g: < 20

#### 2.2. Label elements

##### **Regulation (EC) No. 1272/2008**

**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.



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#### **2.3. Other hazards**

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.  
Can cause frostbite.

### SECTION 3: Composition/information on ingredients

#### **3.1. Substances**

##### **Chemical characterization**

Gases under pressure (liquefied gas).

##### **Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
29118-24-9	1,3,3,3-Tetrafluoro-1-propene			100 %
	471-480-0		01-0000019758-54-XXXX	
	Liquefied gas; H280			

Full text of H and EUH statements: see section 16.

### SECTION 4: First aid measures

#### **4.1. Description of first aid measures**

##### **General information**

First aider: Pay attention to self-protection!

##### **After inhalation**

Provide fresh air. Put victim at rest, cover with a blanket and keep warm. In all cases of doubt, or when symptoms persist, seek medical advice.

##### **After contact with skin**

In case of frostbite, wash with plenty of water; do not remove clothing. In case of skin reactions, consult a physician.

##### **After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.

##### **After ingestion**

No special measures are necessary.

#### **4.2. Most important symptoms and effects, both acute and delayed**

Frostbite

#### **4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

### SECTION 5: Firefighting measures

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Water spray jet, alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO<sub>2</sub>).

##### **Unsuitable extinguishing media**

High power water jet

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

Non-flammable.

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO<sub>2</sub>). Hydrogen fluoride. Carbonyl difluoride.



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Heating causes rise in pressure with risk of bursting.

#### **5.3. Advice for firefighters**

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

#### **Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### **SECTION 6: Accidental release measures**

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

Use personal protection equipment. Evacuate area. Avoid contact with skin. Remove all sources of ignition. Do not breathe gas. Avoid contact with skin, eyes and clothes.

#### **6.2. Environmental precautions**

No special environmental measures are necessary.

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

Leave to vapourize.

#### **6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Provide adequate ventilation. Do not pierce or burn, even after use. Do not breathe gas/fumes/vapour/spray.

##### **Advice on protection against fire and explosion**

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

#### **7.2. Conditions for safe storage, including any incompatibilities**

##### **Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool, well-ventilated place. Caution! Container under pressure. Remove all sources of ignition.

##### **Advice on storage compatibility**

No special measures are necessary.

##### **Further information on storage conditions**

Recommended storage temperature: 5 - 25 °C

#### **7.3. Specific end use(s)**

For cleaning up.

The product is intended for professional use.

### **SECTION 8: Exposure controls/personal protection**

#### **8.1. Control parameters**

##### **Additional advice on limit values**

Monitoring and observation processes:

To follow: DIN EN 482; DIN EN 689, DIN EN 14042

#### **8.2. Exposure controls**



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#### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

#### Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Keep away from food, drink and animal feedingstuffs.

#### Eye/face protection

Wear eye/face protection. (DIN EN 166)

#### Hand protection

Wear protective gloves. (DIN EN 374)

Suitable material: NBR (Nitrile rubber).

Short-term (single):

Thickness of the glove material:  $\geq 0,11$  mm.

Long-term (continuous):

Thickness of the glove material:  $\geq 0,40$  mm

Breakthrough time (maximum wearing time):  $> 480$  min

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Skin protection

Wear suitable protective clothing.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

#### Environmental exposure controls

No special environmental measures are necessary.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	liquid (Aerosol)
Colour:	colourless
Odour:	like: Ether
pH-Value:	not applicable
<b>Changes in the physical state</b>	
Melting point:	not applicable
Initial boiling point and boiling range:	-19 °C
Flash point:	not applicable
<b>Flammability</b>	
Solid:	No data available
Gas:	No data available



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#### Explosive properties

The product is not: Explosive.

Lower explosion limits: not applicable  
Upper explosion limits: not applicable  
Ignition temperature: No data available

#### Auto-ignition temperature

Solid: not applicable  
Gas: 368 °C

Decomposition temperature: No data available

#### Oxidizing properties

Not oxidising.

Vapour pressure: not determined  
Density (at 20 °C): 1,19 g/cm<sup>3</sup>  
Water solubility: practically insoluble

#### Solubility in other solvents

not determined

Partition coefficient: 1,6

Viscosity / dynamic: No data available

Viscosity / kinematic: No data available

Vapour density: not determined

Evaporation rate: No data available

#### 9.2. Other information

Odour threshold: No data available  
refraction index nD: No data available (20 °C)  
Conductivity: No data available (20 °C)

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

#### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

Heating causes rise in pressure with risk of bursting.

#### 10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from sunlight.

#### 10.5. Incompatible materials

No information available.

#### 10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO<sub>2</sub>). Hydrogen fluoride. Carbonyl difluoride.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects



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#### Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
29118-24-9	1,3,3,3-Tetrafluoro-1-propene				
	inhalative (4 h) vapour	LC50 > 965 mg/l	Rat	Manufacturer	OECD 403

#### Irritation and corrosivity

Based on available data, the classification criteria are not met.

#### Sensitising effects

Based on available data, the classification criteria are not met.

#### Carcinogenic/mutagenic/toxic effects for reproduction

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.

#### Additional information on tests

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### Practical experience

##### Other observations

- Can cause frostbite.
- Narcotic effects.
- Asphyxiant in high concentrations.
- Causes serious eye irritation. Causes tears. (liquefied gas)

## SECTION 12: Ecological information

### 12.1. Toxicity

No data available

### 12.2. Persistence and degradability

No data available

### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
29118-24-9	1,3,3,3-Tetrafluoro-1-propene	1,6

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

### 12.6. Other adverse effects

Global warming potential (GWP): 6

#### Further information

Avoid release to the environment.



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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Do not mix with other wastes.

#### Waste disposal number of used product

160505 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers other than those mentioned in 16 05 04

#### Waste disposal number of contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

#### Contaminated packaging

Completely emptied packages can be recycled.

## SECTION 14: Transport information

### Land transport (ADR/RID)

<b>14.1. UN number:</b>	UN 1950
<b>14.2. UN proper shipping name:</b>	AEROSOLS
<b>14.3. Transport hazard class(es):</b>	2
<b>14.4. Packing group:</b>	-
Hazard label:	2.2



Classification code:	5A
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Excepted quantity:	E0
Transport category:	3
Tunnel restriction code:	E

### Inland waterways transport (ADN)

<b>14.1. UN number:</b>	UN 1950
<b>14.2. UN proper shipping name:</b>	AEROSOLS
<b>14.3. Transport hazard class(es):</b>	2
<b>14.4. Packing group:</b>	-
Hazard label:	2.2



Classification code:	5A
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Excepted quantity:	E0

### Marine transport (IMDG)

<b>14.1. UN number:</b>	UN 1950
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**14.2. UN proper shipping name:** AEROSOLS

**14.3. Transport hazard class(es):** 2.2

**14.4. Packing group:** -

Hazard label: 2.2



Special Provisions: 63, 190, 277, 327, 344, 381, 959

Limited quantity: 1000 mL

Excepted quantity: E0

EmS: F-D, S-U

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** UN 1950

**14.2. UN proper shipping name:** AEROSOLS, non-flammable

**14.3. Transport hazard class(es):** 2.2

**14.4. Packing group:** -

Hazard label: 2.2



Special Provisions: A98 A145 A167 A802

Limited quantity Passenger: 30 kg G

Passenger LQ: Y203

Excepted quantity: E0

IATA-packing instructions - Passenger: 203

IATA-max. quantity - Passenger: 75 kg

IATA-packing instructions - Cargo: 203

IATA-max. quantity - Cargo: 150 kg

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.6. Special precautions for user

No special measures are necessary.

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

### SECTION 15: Regulatory information

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

##### EU regulatory information

2010/75/EU (VOC): 100 %

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water contaminating class (D): 1 - slightly water contaminating

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.





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#### SECTION 16: Other information

##### Changes

This data sheet contains changes from the previous version in section(s): 1,7,9.

##### 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 Harmonized 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

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

##### Relevant H and EUH statements (number and full text)

H229 Pressurised container: May burst if heated.

H280 Contains gas under pressure; may explode if heated.

##### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.