



SAFETY DATA SHEET

KaVo. Dental Excellence.

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

Product identifier

Trade name or designation of the mixture	KaVo DRYspray
Registration number	-
Product registration number	Not available.
Product use	professional use
Product code	1,007,0570; 1,007,0580
Date of first issue	27-October-2011
Version number	1.0
Revision date	28-October-2011
Supersedes date	27-October-2011

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

Identified uses	Not available.
Uses advised against	None known.

Details of the supplier of the safety data sheet

Company name	Kaltenbach & Voigt GmbH
Address	Bismarckring 39 D-88400 Biberach Germany
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Contact person	Peter Fischer
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Emergency telephone number	+49 (0) 7351 56 4000

Section 2: Hazards identification

Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification	F+;R12
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The full text for all R-phrases is displayed in section 16.

Hazard summary

Physical hazards	Extremely flammable.
Health hazards	Not classified for health hazards.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	Extremely flammable. Do not breathe dust/fume/gas/mist/vapors/spray.
Main symptoms	Not available.

Label elements

Label according to Directive 67/548/EEC or 1999/45/EC as amended

Contains:	1,1-difluoroethane
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Extremely flammable

R-phrases	R12 Extremely flammable.
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S-phrases

S9 Keep container in a well-ventilated place.
S16 Keep away from sources of ignition - No smoking.
S23 Do not breathe gas/fumes/vapour/spray.
S60 This material and its container must be disposed of as hazardous waste.

Section 3: Composition/information on ingredients**Mixture****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
1,1,1,2-tetrafluoroethane	70 - 85	811-97-2 212-377-0	-	-	#
Classification:	-				
1,1-difluoroethane	15 - 30	75-37-6 200-866-1	-	-	
Classification:	F+;R12				

#: This substance has workplace exposure limit(s).
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.

Composition comments The full text for all R-phrases is displayed in Section 16.

Section 4: First aid measures**Description of first aid measures**

Inhalation	Move to fresh air. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if irritation develops and persists.

Most important symptoms and effects, both acute and delayed Not available.

Indication of any immediate medical attention and special treatment needed Not available.

Section 5: Firefighting measures**Extinguishing media**

Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	Do not use water jet.

Advice for firefighters

Special protective equipment for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Special firefighting procedures	Containers close to fire should be removed immediately or cooled with water. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Hazardous combustion products Hydrogen Fluoride.

Section 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them.
For emergency responders	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the MSDS.

Environmental precautions Prevent further leakage or spillage if safe to do so. Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground.

Methods and material for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage**Precautions for safe handling**

Pressurised container: Do not pierce or burn, even after use. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. May be ignited by open flame. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not use if spray button is missing or defective. Do not re-use empty containers. Do not breathe dust/fume/gas/mist/vapors/spray. Use only in well-ventilated areas. Avoid prolonged exposure.

Conditions for safe storage, including any incompatibilities

Level 1 Aerosol.

Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Avoid exposure to long periods of sunlight. Refrigeration recommended. Store in a well-ventilated place. Keep out of the reach of children. Storage Temperature: Between -20 °C and 50 °C

Section 8: Exposure controls/personal protection**Control parameters****Exposure limit values****UK. EH40 Workplace Exposure Limits (WELs)**

Components	Type	Value
1,1,1,2-tetrafluoroethane (811-97-2)	TWA	1000 ppm 4240 mg/m ³

Biological limit values

No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures

Follow standard monitoring procedures.

DNEL

Not available.

PNEC

Not available.

Exposure controls**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide adequate general and local exhaust ventilation.

Individual protection measures, such as personal protective equipment**General information**

Not available.

Eye/face protection

Wear safety glasses with side shields.

Skin protection**- Hand protection**

Wear protective gloves.

- Other

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Respiratory protection

Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Thermal hazards

Not available.

Hygiene measures

When using do not smoke. Handle in accordance with good industrial hygiene and safety practices.

Environmental exposure controls

Environmental manager must be informed of all major releases.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid.
Form	Aerosol
Colour	Colourless.
Odour	Ether-like.
Odour threshold	Not available.
pH	Not applicable.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Flash point	Not applicable.
Auto-ignition temperature	Not applicable.
Flammability (solid, gas)	Not available.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Oxidising properties	Not applicable.
Explosive properties	Not applicable.
Explosive limit	Not applicable.
Vapour pressure	6 bar
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Relative density	Not available.
Density	1.226 g/ml @ 20 °C
Solubility (water)	Not miscible.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Percent volatile	Not available.
Other information	No relevant additional information available.

Section 10: Stability and reactivity

Chemical stability	Risk of ignition.
Conditions to avoid	Heat, flames and sparks. Aerosol containers are unstable at temperatures above 50°C.
Incompatible materials	Do not mix with other chemicals.
Hazardous decomposition products	No dangerous reaction known under conditions of normal use.

Section 11: Toxicological information

Information on likely routes of exposure

Ingestion	Not available.
Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.
Symptoms	Not available.

Information on toxicological effects

Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Not available.
Respiratory sensitisation	Not available.

Skin sensitisation	Not available.
Germ cell mutagenicity	Not available.
Carcinogenicity	Not available.
Reproductive toxicity	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.
Mixture versus substance information	Not available.
Other information	Rapid evaporation of the liquid may cause frostbite.

Section 12: Ecological information

Ecotoxicity	Not expected to be harmful to aquatic organisms.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	Not available.
Mobility	Not available.
Environmental fate - Partition coefficient	Not available.
Mobility in soil	Not available.
Results of PBT and vPvB assessment	Not available.
Other adverse effects	Not available.

Section 13: Disposal considerations

Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Avoid discharge into water courses or onto the ground.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Contents under pressure. Do not puncture, incinerate or crush. This material and its container must be disposed of as hazardous waste. Must be incinerated in a suitable incineration plant authorised under the Environmental Protection Act 1990. Do not discharge into drains, water courses or onto the ground. Dispose in accordance with all applicable regulations.

Section 14: Transport information

ADR

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	2.1
Subsidiary class(es)	-
Environmental hazards	No
Tunnel restriction code	D
Labels required	2.1
Special precautions for user	Not available.

IATA

UN number	1950
Proper shipping name	Aerosols, flammable
Hazard class	2.1
ERG Code	10L

IMDG

UN number	1950
Proper shipping name	Aerosols, flammable
Hazard class	2

Section 15: Regulatory information

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

EU regulations

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V

Not listed.

Commission Decision 2000/479/EC on the implementation of a European pollutant emission register (EPER)

1,1,1,2-tetrafluoroethane (CAS 811-97-2)

1,1-difluoroethane (CAS 75-37-6)

Regulation (EC) No. 1907/2006, Article 59(1). Candidate List

Not listed.

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

Chemical safety assessment

No Chemical Safety Assessment has been carried out.

Section 16: Other information

List of abbreviations

Not available.

References

Not available.

Information on evaluation method leading to the classification of mixture

Not available.

Wording of the R-phrases in sections 2 and 3

R12 Extremely flammable.

Revision information

Not available.

Training information

Not available.

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

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