1 EC safety data sheet in accordance with Directive 2001/58/EC

KaVo. Dental Excellence.

Version date: 8/4/06

1. MATERIAL, PREPARATION AND COMPANY ID

1.1. Name of the material or preparation
KaVo Turbine Spray
Versions: ▪ Single 150 ml can (**Mat. no. 0.489.3020**)
Internal versions: ▪ Box with 24 150 ml individual cans (**Mat. no. 0.620.2011**)

1.2. Use of the material or preparation
Maintenance spray for KaVo EWL turbines.

1.3. Company name
Kaltenbach & Voigt GmbH Bismarckring 39 D-88400 Biberach Tel.: + 49 7351 56-0 Fax: + 49 7351 56-1488 Source of information: Person in charge of safety for medical devices

1.4. Emergency number
Fire department - national emergency number, Germany: 112

2. COMPOSITION/INFORMATION ON COMPONENTS

- Fatty acid ester oil, mineral oil with active ingredients
- Propellant gas:
  - Propane (CAS No. 74-98-6, EINECS No. 200-827-9)
  - Butane (CAS No. 106-97-8, EINECS No. 203-448-7)
  - Isobutane (CAS No. 75-28-5, EINECS No. 200-857-2)

Identification-requiring Component	CAS No.	EINECS No.	Mass content	Symbol	R phrases
none	–	–	–	–	–

3. POSSIBLE HAZARDS

Risk phrase:
- Highly flammable
- Preparation is rated hazardous according to Directive 1999/45/EC.

Additional hazard instructions for people and the environment:

- The formation of explosive, easily flammable vapour/air mixtures is possible during use.
- May explode when heated.

4. FIRST AID

After inhalation	▸ Supply fresh air.
	▸ If discomfort persists, consult a doctor and keep the safety data sheet/label to hand.
	▸ In case of unconsciousness: Check for consciousness.
	▸ Remove foreign bodies from the mouth, extend the head and neck and monitor breathing. Perform artificial respiration if necessary and call 911/ambulance.
After skin contact	▸ Wash immediately with soap and water and rinse thoroughly.
	▸ Apply skin care cream.
	▸ Remove any clothing that has been splashed.
After eye contact	▸ Keep eyes open and rinse them for several minutes with running water.
	▸ Remove any contact lenses.
	▸ If discomfort persists, consult a doctor and keep the safety data sheet/label to hand.
After swallowing	▸ Rinse mouth with fresh water and spit it out.
	▸ Drink plenty of water immediately.
	▸ Do not induce vomiting.
	▸ If discomfort persists, consult a doctor and keep the safety data sheet/label to hand.

5. FIREFIGHTING MEASURES

Suitable extinguishing agents	▪ Carbon dioxide ▪ Water fog ▪ Foam ▪ Extinguishing agent
Unsuitable extinguishing agents	▸ Do not use full water jet.
Special hazards	Can form explosive gas/air mixtures. Explosion hazard!
Special protective equipment	▸ Wear breathing equipment with eye protection and protective clothing.

Note
Container must be removed from the area threatened by fire if this is possible without endangerment. Otherwise cool with water. Do not inhale vapours and smoke fumes. Ensure a fresh air supply.

6. MEASURES FOR UNINTENTIONAL RELEASE

Personal precautionary measures	▸ Keep away from sources of ignition – do not smoke.
	▸ Ensure sufficient ventilation.
	▸ Avoid inhaling vapours.
	▸ Avoid contact with eyes and skin.
Environmental measures	▸ May not enter the sewer system, surface water and/or ground water; e.g. install oil booms made of universal bonding agent
Cleaning procedure	▸ Absorb leaked product using hygroscopic material (sand, silica earth, universal binder, sawdust, wipes), as described in item 13.
	▸ Identify and dispose of leaky containers, as described in item 13.

7. HANDLING AND STORAGE

7.1. Handling
▸ Keep away from sources of ignition – do not smoke.
▸ Use only in well-ventilated areas.
▸ Ensure extractor unit at the workplace, if natural ventilation is not sufficient.
▸ Wash hands before breaks and at the end of the working day.

7.2. Storage
▸ Protect from direct exposure to sunlight and temperatures above 50°C.
▸ Do not transport or store inside cars.
▸ Observe storage regulations in TRG 300 for flammable aerosols.
Storage class: 2B

7.3. Specified use
▸ Use only for intended purpose.
See also: User instructions, KaVo care instructions

8. RESTRICT EXPOSURE AND WEAR PERSONAL PROTECTIVE GEAR

8.1. Exposure threshold	
Workplace thresholds:	▪ Propane: 1,800 mg/m³, 1000 ppm ▪ Butane: 2400 mg/m³, 1000 ppm ▪ Isobutane: 2400 mg/m³, 1000 ppm

Note
The above limits are taken from TRGS 900 (EH40/2002 Occupational Exposure Limits) and may be checked using measurements which ensure compliance with health and safety requirements. Proper use will limit exposure and should prevent prescribed limits for the workplace from being reached.

8.2. Limiting and monitoring exposure	
8.2.1. Limiting and monitoring exposure at the workplace	▸ Wash hands before breaks and at the end of the working day.
	▸ Do not eat, drink or smoke at the workplace.

8.2. Limiting and monitoring exposure	
8.2.1.1. Respiratory protection	Not necessary if the room ventilation is sufficient. ▸ If necessary, wear respiratory protection: combination filter devices such as half/quarter masks with AX / FF P2 filters, full masks (DIN EN 136 or breathing apparatuses (DIN EN 138)
8.2.1.2. Gloves	Not necessary if used properly. ▸ Wear protective gloves made of nitrile rubber/nitrile latex NBR (DIN EN 374) to avoid direct skin contact.
	▸ Wear leather gloves in case of mechanical hazards or freezing hazard due to rapidly expanding gases.
	▸ Use protective skin cream.
8.2.1.3. Safety goggles	Not necessary if used properly. ▸ Wear safety glasses with closable side flaps (DIN EN 166).
8.2.1.4. Personal protective equipment	Not necessary if used properly.
8.2.2. Limiting and monitoring environmental exposure	Not necessary if used properly.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information	
Appearance	Form: aerosol Colour: colourless
Odour	depends on solvent

9.2. Important information on health, environmental protection and safety	
pH	Not applicable
Boiling point	Not applicable
Flashpoint	Not applicable
Ignition temperature	approx. 350°C
Explosion hazard	Lower explosion threshold: 0.7 vol. % in air Top explosion threshold: 11.2 vol. % in air (of the propellant or solvent)
Fire-promoting properties	not determined
Vapour pressure	Internal can pressure: 3.8 bar at 20 °C 7 bar at 50 °C
Relative density	0.704 g/ml at 20 °C according to DIN 51757
Solubility	- insoluble in water at 20°C - soluble in most organic solvents at 20°C
Distribution coefficient	not determined
Viscosity	Not applicable
Vapour density	not determined
Evaporation speed	not determined

9.3. Other information
No data known

10. STABILITY AND REACTIVITY

10.1. Conditions to be avoided
▪ Ignition sources ▪ Open flame ▪ Heating above 50 °C: explosion hazard!

10.2. Substances to be avoided
No data known

10.3. Hazardous decomposition products
No data known

11. TOXICOLOGICAL INFORMATION

Note
Contains propellant gas.
The toxicological properties of the preparation are unknown.

Inhalation	▪ Vapours can cause drowsiness and dazedness. ▪ Harmful to health after long, repeated exposure.
Swallowing	No data known
Skin contact	The skin looses its oils upon intense contact. This can cause changes in skin appearance if repeated numerous times.
Eye contact	Eye irritant.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity
No data known

12.2. Mobility
No data known

12.3. Persistence and biodegradability
No data known

12.4. Bioaccumulation potential
No data known

12.5. Other harmful effects
Contains no AOX according to recipe. Water pollution class 1, slightly polluting ▸ Do not allow to enter the sewerage system, surface water or surface waterways.

13. DISPOSAL INSTRUCTIONS

Note
Observe local and national regulations.

Note
Use up all the spray in the can (including propellant gas).

Waste code according to the European waste catalog (national: Ordinance on the list of wastes AVV):

Product	16 05 05 Gases in pressurised containers with the exception of those that fall under 16 05 04.
Empty can	15 01 04 Packages made of metal, or 20 01 06 Other metals
Packaging cardboard	15 01 01 Paper and cardboard packaging
Leaked product that was bound with liquid-binding material	15 02 02 Absorbent and filter materials (including oil filters not otherwise specified), wipe cloths and protective clothing soiled from hazardous substances.

14. INFORMATION ON TRANSPORTING

Maritime traffic (IMDG)	▪ UN number: 1950 ▪ Class: 2 ▪ Technical name: Aerosols ▪ Additional hazard: - ▪ Packaging group: - ▪ Ocean pollutant: no ▪ Limited amount: SV 277: 1000 ml ▪ EmS: F-D; S-U ▪ Sent as "packaged limited amount" according to section 3.4 IMDG code.
Surface and rail traffic (ADR/RID)	▪ UN number: 1950 ▪ Class: 2 ▪ Name: Compressed gas container, flammable ▪ Classification code: 5F ▪ Packaging group: - ▪ Hazard label: 2.1 ▪ Limited quantity: LQ 2 ▪ Released by the ADR (GGVS/E) since some is packaged according to section 3.4 ADR–LQ2.
Air traffic (ICAO/IATA)	▪ UN number: 1950 ▪ Class: 2.1 ▪ Correct shipping ID: Aerosols, flammable ▪ Additional hazard: - ▪ Packaging group: - ▪ Hazard symbol: Flamm. gas ▪ Packaging regulation 203 applies: The box (external packaging) must correspond to packaging group II. These shipped items may be repackaged.

15. REGULATIONS

15.1. EU regulations	
Hazard symbol / hazard ID	F+, highly flammable
R phrases	▪ R12 – Highly flammable
S phrases	▪ S2 – Keep out of the reach of children. ▪ S16 – Keep away from sources of ignition - no smoking. ▪ S23 – Do not inhale aerosol. ▪ S51 – Only use in well-ventilated areas.
Special ID	Additional identification because it is an aerosol: ▪ Container under pressure. ▪ Protect from sunlight and temperatures above 50 °C. ▪ Do not forcefully open or burn after use. ▪ Do not spray into flame or on glowing objects. ▪ Explosive vapour/air mixtures may form without sufficient ventilation.

15.2. National regulations	
TRGS 905	CAS No.: not applicable
Malfunction V	not applicable
Water pollution class	WGK 1 (VwVwS): slightly water polluting
Information on Directive 1999/13/EC on the restriction of emissions of volatile organic compounds (VOC Directive)	64.0 % w/w VOC-CH: 0.062 kg/150 ml
Restriction and prohibitions	not applicable
Workplace identifications according to BGV A8	P02 – Fire, exposed light and smoking prohibited.

16. OTHER INFORMATION

R phrases from point 2	-
Training instructions	-
Additional information	Does not contain any fluorochlorohydrocarbons or chlorohydocarbons. This data sheet only applies to aerosols (compressed gas containers)
Revision of the safety data sheet	▪ 006-08-04: Revision according to Directive 2001/58/EC.

Note
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Note
Only for use in conjunction with the corresponding KaVo products according the instructions for use. Not to be used in homes or for other purposes.
In case of contact or mixture with other products, check if other hazards may arise.
The presented information does not free the user of the product from observing all guidelines regarding safety, hygiene, health and environmental protection.