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· 1.1 Product identifier

· Trade name: <u>DC Kälte Spray</u>

- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- No further relevant information available.
- · Application of the substance / the mixture Auxiliary for manufacture of dental prothesis
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

DC DentalCentral GmbH Owiedenfeldstr. 6 D- 30559 Hannover

Germany

- Further information obtainable from: info@dental-central.de
- · 1.4 Emergency telephone number: 0800-1003893

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Aerosol 1 H222-H229 Extremely flammable aerosol. 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



· Signal word Danger

· Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

· Precautionary statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- *P211* Do not spray on an open flame or other ignition source.
- *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:

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

Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.

Keep out of the reach of children

- · Labelling of packages where the contents do not exceed 125 ml -
- · 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 of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5 RTECS: TX 2275000

propane 🚸 Flam. Gas 1, H220; Press. Gas (Comp.), H280

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50-100%

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CAS: 106-97-8	butane, pure	25-50%
EINECS: 203-448-7	🚯 Flam. Gas 1, H220; 🛞 Acute Tox. 3, H331; Press. Gas	
Index number: 601-004-00-0	(Comp.), H280	
<i>RTECS: EJ 4200000</i>		
CAS: 64-17-5	ethanol	2.5-10%
EINECS: 200-578-6	🕐 Flam. Liq. 2, H225	
Index number: 603-002-00-5	· ·	
RTECS: KQ 6300000		
Reg.nr.: 01-2119457610-43-XXXX		
• Additional information: For the we	ording of the listed hazard phrases refer to section 16.	

SECTION 4: First aid measures

• 4.1 Description of first aid measures

• After inhalation: Supply fresh air; consult doctor in case of 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 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 Extinguishing media
- Suitable extinguishing agents:

CO2, 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 Ensure adequate ventilation Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

No special measures required.

• 6.3 Methods and material for containment and cleaning up:

Allow to evaporate.

Ensure adequate ventilation.

- 6.4 Reference to other sections
- See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling Use only in well ventilated areas.

• *Information about fire - and explosion protection:* Do not spray onto a naked flame or any incandescent material. Keep ignition sources away - Do not smoke.

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(Contd. of page 2) Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- *Requirements to be met by storerooms and receptacles: Store only in the original receptacle.*

Observe official regulations on storing packagings with pressurised containers.

- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep container tightly sealed.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

• Additional information about design of technical facilities: No further data; see item 7.

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

106-97-8 butane, pure

WEL Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1.3-diene)

64-17-5 ethanol

WEL Long-term value: 1920 mg/m³, 1000 ppm

• Additional information: The lists valid during the making were used as basis.

- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures: Wash hands before breaks and at the end of work.
- Respiratory protection:
- Not necessary if room is well-ventilated. Not required.
- Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/

the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:

Rubber gloves

• For the permanent contact gloves made of the following materials are suitable: Neoprene gloves

• As protection from splashes gloves made of the following materials are suitable:

Butyl rubber, BR Nitrile rubber, NBR Natural rubber, NR

• Eye protection: Not required.

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SECTION 9: Physical and chemi	ical properties
· 9.1 Information on basic physical and c	chemical properties
· General Information	1 1
· Appearance:	
Form:	Aerosol
Colour:	Transparent
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range	e: Not applicable, as aerosol.
· Flash point:	-97 °C
· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	365 °C
· Decomposition temperature:	Not determined.
• Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air vapour mixtures are possible.
· Explosion limits:	
Lower:	1.5 Vol % (Propan/Butan)
Upper:	10.9 Vol % (Propan/Butan)
· Vapour pressure at 20 °C:	5,000 hPa
· Density at 20 °C:	$0.57 \ g/cm^3$
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	100.0 %
VÕC (EC)	100 %
Solids content:	0.0 %
• 9.2 Other information	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.

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· 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:
- 106-97-8 butane, pure

Inhalative LC50/4 h 700 mg/l (ATE)

- · Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Additional toxicological information:
- Sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, 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.
- \cdot **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- \cdot 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: Not hazardous for water.
- · 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 together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

16 00 00 WASTES NOT OTHERWISE SPECIFIED IN THE LIST

16 05 00 gases in pressure containers and discarded chemicals

16 05 04 gases in pressure containers (including halons) containing dangerous substances

• Uncleaned packaging:

• *Recommendation: Disposal must be made according to official regulations.*

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14.1 UN-Number	
ADR, IMDG, IATA	UN1950
14.2 UN proper shipping name	
ADR	1950 AEROSOLS
IMDG	AEROSOLS
IATA	AEROSOLS, flammable
14.3 Transport hazard class(es)	
ADR	
Class	2.1 5F
Label	2.1
IMDG, IATA	
Class	2.1
Label	2.1
14.4 Packing group ADR, IMDG, IATA	Void
14.5 Environmental hazards: Marine pollutant:	No
14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number:	- F-D,S-U
14.7 Transport in bulk according to Annex II o Marpol and the IBC Code	<i>y</i> Not applicable.
Transport/Additional information:	11
ADR	
Excepted quantities (EQ):	E0
Limited quantities (LQ)	
Executed an antitica (EQ)	- Code, F0
Excepted quantities (EQ)	<i>Code: E0</i> <i>Not permitted as Excepted Quantity</i>
Transport category	$\frac{1}{2}$
Tunnel restriction code	D
IMDG	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
UN "Model Regulation":	UN1950, AEROSOLS, 2.1

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SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture • Labelling according to Regulation (EC) No 1272/2008 GHS label elements
- · Directive 2012/18/EU
- \cdot Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

None of the ingredients is listed.

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.
H225 Highly flammable liquid and vapour.
H280 Contains gas under pressure; may explode if heated.
H331 Toxic if inhaled.

- Recommended restriction of use Product only for professional use
- · Department issuing SDS: Abteilung Produktsicherheit
- · Contact: Hr. Dr. Metz
- Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

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

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases – Category 1

Aerosol 1: Aerosols – Category 1

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

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 3: Acute toxicity - inhalation – Category 3

* * Data compared to the previous version altered.