

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.07.2015

Revision: 05.06.2015

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

- **1.1 Product identifier**
- **Trade name: Okklusions-Spray**
- **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 dental technology
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Servo-Dental GmbH & Co. KG
Rohrstrasse 30
DE-58093 Hagen-Halden
info@servo-dental.de
Fon: +49 (0)2331 / 9591 - 0
Fax: +49 (0)2331 / 9591 - 25
- **Further information obtainable from:** Siehe Notfallauskunft
- **1.4 Emergency telephone number:**
Landesberatungsstelle für Vergiftungserscheinungen und Embryonaltoxikologie
Pulsstrasse 3-7
DE-14059 Berlin
Fon: +49 (0)30 / 19240
Fax: +49 (0)30 / 32 680 721

SECTION 2: Hazards identification

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



GHS02 flame

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



F+; Extremely flammable

R12: Extremely flammable.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

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

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **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**



GHS02

- **Signal word** Danger

- **Hazard statements**

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

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- **Precautionary statements**
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P251 Pressurized container: Do not pierce or burn, even after use.
- P211 Do not spray on an open flame or other ignition source.
- P271 Use only outdoors or in a well-ventilated area.
- 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.
- **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: 75-28-5	isobutane	 F+ R12	50-100%
EINECS: 200-857-2		 Flam. Gas 1, H220; Press. Gas C, H280	

- **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**
- **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.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **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**
- 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:** Ensure adequate ventilation.

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- **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**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
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.
Do not seal receptacle gas tight.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **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 item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **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.
Do not inhale gases / fumes / aerosols.
- **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**
Not required.
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.

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

Natural rubber, NR

Butyl rubber, BR

Nitrile rubber, NBR

· **Eye protection:**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Aerosol

Colour: Different according to colouring

· **Odour:** Pleasant

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: -159.4 °C

Boiling point/Boiling range: -44 °C

· **Flash point:** Not applicable, as aerosol.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 460 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Not determined.

· **Explosion limits:**

Lower: 1.8 Vol % (Propan/Butan)

Upper: 8.5 Vol % (Propan/Butan)

· **Vapour pressure at 20 °C:** 3000 hPa

· **Density at 20 °C:** 0.6 g/cm³

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

water at 20 °C: 0.049 g/l

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

Dynamic: Not determined.

Kinematic: Not determined.

· **Solvent content:**

Organic solvents: 0.0 %

VOC (EC) 98 %

Solids content: <5 %

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· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **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**

· **LD/LC50 values relevant for classification:**

106-97-8 butane

Inhalative	LC50/4 h	658 mg/l (rat)
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- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** No irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.
- **Subacute to chronic toxicity:** Not determined
- **Toxicokinetics, metabolism and distribution** Not determined
- **Acute effects (acute toxicity, irritation and corrosivity)** Not determined
- **Repeated dose toxicity** Not determined
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)** Not determined

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.
- **Ecotoxicological effects:**
- **Remark:** The product is high-volatile.
- **Additional ecological information:**
- **General notes:** Generally 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 be specially treated adhering to official regulations.
- Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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· **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.

SECTION 14: Transport information

· **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 5F Gases.
 · **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**

· **Danger code (Kemler):** Warning: Gases.
 -
 · **EMS Number:** F-D,S-U

· **14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**
 · **Excepted quantities (EQ):** E0
 · **Limited quantities (LQ)** 1L
 · **Transport category** 2
 · **Tunnel restriction code** D

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· UN "Model Regulation": UN1950, AEROSOLS, 2.1

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**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02

- **Signal word** *Danger*
- **Hazard statements**
H222-H229 *Extremely flammable aerosol. Pressurised container: May burst if heated.*
- **Precautionary statements**
P210 *Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*
P251 *Pressurized container: Do not pierce or burn, even after use.*
P211 *Do not spray on an open flame or other ignition source.*
P271 *Use only outdoors or in a well-ventilated area.*
P410+P412 *Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.*
- **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.*
R12 *Extremely flammable.*
- **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*
Flam. Gas 1: *Flammable gases, Hazard Category 1*
Flam. Aerosol 1: *Flammable aerosols, Hazard Category 1*
Press. Gas C: *Gases under pressure: Compressed gas*
- *** Data compared to the previous version altered.**