



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No. 2015/830

Revision date: 2/1/2017
Version: 6
Language: en-GB,IE
Date of print: 8/3/2018

Occlusions-Spray green or red

Material number 01

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

1.1 Product identifier

Trade name: Occlusions-Spray green or red

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

General use: Marking spray for marking contact points in the dental field.

1.3 Details of the supplier of the safety data sheet

Company name: Marcadent GmbH
Street/POB-No.: Bernhard Hahn Str. 30
Postal Code, city: 41812 Erkelenz
Germany
WWW: www.marcadent.de
E-mail: info@marcadent.de
Telephone: +49 (0)2431-80 558-45
Telefax: +49 (0)2431-80 558-63
Dept. responsible for information:
Telephone: +49 (0)2431 8055845, E-mail: info@marcadent.de

1.4 Emergency telephone number

Telephone: +49 (0)2431 8055845
Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

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

2.2 Label elements

Labelling (CLP)



Signal word: **Danger**

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



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Precautionary statements:

- P102 Keep out of reach of children.
- 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.
- P501 Dispose of contents/container to hazardous or special waste collection point.

2.3 Other hazards

Exposure to temperatures exceeding 50 °C will increase pressure: resulting in danger of bursting or explosion.

Potentially explosive mixtures may form if adequate ventilation is not provided.

Vapours of organic solvents may have a narcotic effect.

Results of PBT and vPvB assessment:

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: Powder (without health hazard properties) with propellant

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 200-827-9 CAS 74-98-6	Propane	20 - 50 %	Flam. Gas 1; H220. Liquef. Gas; H280.
EC No. 203-448-7 CAS 106-97-8	Butane	20 - 50 %	Flam. Gas 1; H220. Liquef. Gas; H280.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

- In case of inhalation: Move victim to fresh air, put at rest and loosen restrictive clothing. Seek medical aid in case of troubles.
Remove victim out of the danger area.
- Following skin contact: Wash with generous amount of water and soap. Immediately remove any contaminated clothing, shoes or stockings. In case of skin irritation, consult a physician.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Seek the attention of an ophthalmologist immediately.
- After swallowing: Swallowing is not regarded as a possible way of exposition.

4.2 Most important symptoms and effects, both acute and delayed

Vapours in high concentrations have anaesthetic effect.

In case of prolonged exposure: Nausea, drowsiness, headache, agitation, fatigue, dizziness, unconsciousness.



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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 fog, alcohol resistant foam, extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet

5.2 Special hazards arising from the substance or mixture

Extremely flammable. Vapours form potentially explosive mixtures with air. Heavier than air, they proceed at floor level and may backflash over great distances when ignited.

May form dangerous gases and vapours in case of fire.

Furthermore, there may develop: Organic crack products and carbon oxides.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Do not breathe fumes.

Additional information:

Hazchem-Code: -

Heating will lead to pressure increase: Danger of bursting and explosion.

Cool endangered containers with water spray and, if possible, remove from danger zone.

Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Eliminate all ignition sources if safe to do so. Keep unprotected people away.

Provide adequate ventilation. Do not breathe vapour/aerosol.

Wear suitable protective clothing. Avoid contact with skin and eyes.

6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

6.3 Methods and material for containment and cleaning up

Take up with non-flammable, liquid binding material (e.g. sand/earth/diatomaceous earth/vermiculit) and perform disposal according to instructions.

Larger quantities to be stemmed and pumped into tanks. Explosion protection required.

Provide fresh air.

Additional information:

Use explosion-proof equipment and non-sparking tools/utensils.

6.4 Reference to other sections

Refer additionally to section 8 and 13.



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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.

Do not breathe vapour/aerosol. Avoid contact with skin and eyes.

Wear suitable protective clothing.

Take care of instructions on label.

Precautions against fire and explosion:

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 naked flames or any incandescent material.

Use only non-sparking tools. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place. Protect from heat and direct sunlight.

Keep only in the original packaging.

Hints on joint storage:

Do not store together with combustible or self-igniting materials or any highly flammable solids.

Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
74-98-6	Propane	Ireland: 8 hours	1000 ppm
106-97-8	Butane	Great Britain: WEL-STEL	1810 mg/m ³ ; 750 ppm
		Great Britain: WEL-TWA	1450 mg/m ³ ; 600 ppm
		Ireland: 8 hours	1000 ppm

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Personal protection equipment

Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded.

Use combination filter type AX-P3 according to EN 14387.

If higher concentrations occur: Wear self-contained breathing apparatus.



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Hand protection:	Recommendation: Protective gloves according to EN 374. During full contact: Glove material: fluoro rubber (0,7 mm). Breakthrough time: 480 min During splash contact: Glove material: Nitrile rubber (0,4 mm). Breakthrough time: 60 min Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection:	Tightly sealed goggles according to EN 166.
Body protection:	Wear suitable protective clothing.
General protection and hygiene measures:	Keep away from heat sources, sparks and open flames. Do not breathe vapour/aerosol. Use only in well-ventilated areas. Change contaminated clothing. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Form: Aerosol Colour: red or green
Odour:	like hydrocarbons
Odour threshold:	No data available
pH value:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	≤ -21 °C
Evaporation rate:	No data available
Flammability:	Extremely flammable.
Explosion limits:	LEL (Lower Explosion Limit): 1.50 Vol-% (propellant) UEL (Upper Explosive Limit): 9.50 Vol-% (propellant)
Vapour pressure:	No data available
Vapour density:	No data available
Density:	No data available
Water solubility:	not soluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	No data available
Explosive properties:	Product is not explosive. Potentially explosive vapour/air mixtures may form.
Oxidizing characteristics:	No data available

9.2 Other information

Additional information:	No data available
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SECTION 10: Stability and reactivity

10.1 Reactivity

Extremely flammable aerosol.
Vapours can form explosive mixtures with air.

10.2 Chemical stability

Product is stable under normal storage conditions.

10.3 Possibility of hazardous reactions

Container under pressure.
Heating will lead to pressure increase: Danger of bursting and explosion.

10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames.
Protect from direct exposure to sunlight and temperatures exceeding 50 °C.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

In case of fire may be liberated: Organic crack products and carbon oxides.

Thermal decomposition: No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects: Acute toxicity (oral): Lack of data.
Acute toxicity (dermal): Lack of data.
Acute toxicity (inhalative): Lack of data.
Skin corrosion/irritation: Lack of data.
Serious eye damage/irritation: Lack of data.
Sensitisation to the respiratory tract: Lack of data.
Skin sensitisation: Lack of data.
Germ cell mutagenicity/Genotoxicity: Lack of data.
Carcinogenicity: Lack of data.
Reproductive toxicity: Lack of data.
Effects on or via lactation: Lack of data.
Specific target organ toxicity (single exposure): Lack of data.
Specific target organ toxicity (repeated exposure): Lack of data.
Aspiration hazard: Lack of data.

Symptoms

Vapours in high concentrations have anaesthetic effect.
In case of prolonged exposure: Nausea, drowsiness, headache, agitation, fatigue, dizziness, unconsciousness.



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SECTION 12: Ecological information

12.1 Toxicity

Further details: No data available

12.2 Persistence and degradability

Further details: No data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Recommendation: Special waste. Do not open with force or incinerate, even when empty.
Dispose of waste according to applicable legislation.

Contaminated packaging

Waste key number: 15 01 04 = Metallic packaging
Recommendation: Empty carefully and completely, if possible.
Dispose of waste according to applicable legislation.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:
UN 1950

14.2 UN proper shipping name

ADR/RID, IMDG: UN 1950, AEROSOLS
IATA-DGR: UN 1950, AEROSOLS, flammable

14.3 Transport hazard class(es)

ADR/RID: Class 2, Code: 5F
IMDG: Class 2, Subrisk -, see SP63
IATA-DGR: Class 2.1





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14.4 Packing group

ADR/RID, IATA-DGR: not applicable

IMDG: -

14.5 Environmental hazards

Marine pollutant: no

14.6 Special precautions for user

Land transport (ADR/RID)

Warning board: ADR: UN number UN 1950
RID: Kemmler-number 23, UN number UN 1950

Hazard label: 2.1

Special provisions: 190 327 344 625

Limited quantities: 1 L

EQ: E0

Contaminated packaging - Instructions: P207 LP200

Contaminated packaging - Special provisions: PP87 RR6 L2

Special provisions for packing together: MP9

Tunnel restriction code: D

Sea transport (IMDG)

EmS: F-D, S-U

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

Limited quantities: See SP277

Excepted quantities: E0

Contaminated packaging - Instructions: P207, LP200

Contaminated packaging - Provisions: PP87, L2

IBC - Instructions: -

IBC - Provisions: -

Tank instructions - IMO: -

Tank instructions - UN: -

Tank instructions - Provisions: -

Stowage and handling: SW1 SW22

Segregation: SG69

Properties and observations: -

Segregation group: none

Air transport (IATA)

Hazard label: Flamm. gas

Excepted Quantity Code: E0

Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y203 - Max. Net Qty/Pkg. 30 kg G

Passenger and Cargo Aircraft: Pack.Instr. 203 - Max. Net Qty/Pkg. 75 kg

Cargo Aircraft only: Pack.Instr. 203 - Max. Net Qty/Pkg. 150 kg

Special provisions: A145 A167 A802

Emergency Response Guide-Code (ERG): 10L

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

No data available



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SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: -
No data available

15.2 Chemical Safety Assessment

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

SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

- H220 = Extremely flammable gas.
- H222 = Extremely flammable aerosol.
- H229 = Pressurised container: May burst if heated.
- H280 = Contains gas under pressure; may explode if heated.

Reason of change: ADR/RID 2017, IMDG 2017

Date of first version: 16/8/2013

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.