OCCLUSIONSSPRAY

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878



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VERSION: 1.4

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

1.1. Product identifier

Product form : Mixture

Trade name : Occlusionsspray

SDS Number : 5380

Product use : Professional use

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

1.2.1. Relevant identified uses

Function or use category : Coating

1.2.2. Uses advised against

Restrictions on use : intraoral application

1.3. Details of the supplier of the safety data sheet

Supplier

Dentaco GmbH & Co.KG Max-Keith-Str. 46 45136 Essen Deutschland

Tel.: + 49 (0) 201/ 8098290 Fax: + 49 (0) 201/ 80982999

Internet: www.dentaco.de; info@dentaco.de

E-Mail: HSE@rle.de

1.4. Emergency telephone number

+ 49 (0) 201/ 8098290 (Mo. - Fr. 09:00 - 17:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Physical hazards Aerosol, Category 1 H222;H229 Extremely flammable aerosol. Pressurised

container: May burst if heated.

Health hazards Specific target organ toxicity — Single H336 May cause drowsiness or dizziness.

exposure, Category 3, Narcosis

Environmental hazards Hazardous to the aquatic environment H412 Harmful to aquatic life with long lasting effects.

— Chronic Hazard, Category 3

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

Adverse physicochemical, human health and environmental effects

Pressurised container: May burst if heated. Extremely flammable aerosol.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008

Hazard pictograms





Signal word Danger

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Contains pentane

Hazard statements

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.
H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

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.

Storage

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII. This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS- No	%	Classification according to	Notes
	EC- No		Regulation (EC) No. 1272/2008 [CLP]	
	Index No RRN			
203-448-7		Press. Gas (Comp.), H280		
601-004-00-0				
01-2119474691-32-XXXX				
Propane	74-98-6	< 90	Flam. Gas 1A, H220	(Note U)
	200-827-9		Press. Gas (Comp.), H280	
	601-003-00-5			
	01-2119486944-21-XXXX			
isobutane	75-28-5	< 90	Flam. Gas 1A, H220	(Note C)(Note U)
	200-857-2		Press. Gas (Comp.), H280	
	601-004-00-0			
	01-2119485395-27-XXXX			
pentane	109-66-0	10 - < 20	Flam. Liq. 1, H224	#
	203-692-4		STOT SE 3, H336	(Note C)
	601-006-00-1		Asp. Tox. 1, H304	
	01-2119459286-30-XXXX		Aquatic Chronic 2, H411	

Comments : #: substance with a Community workplace exposure limit

Note: Regulation No. 1272/2008 - Annex VI

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note U(table 3.1): When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

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

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Ensure that medical personnel are aware of the material(s) involved, and take precautions to

protect themselves.

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for

breathing. Call a physician if symptoms develop or persist.

First-aid measures after skin contact : Wash skin with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. First-aid measures after eye contact

: Rinse cautiously with water for several minutes. If eye irritation persists: Get medical

advice/attention.

First-aid measures after ingestion : Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects: : May cause drowsiness or dizziness.

4.3. Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry chemical, CO2, dry sand, or alcohol-resistant foam. Unsuitable extinguishing media : Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable aerosol.

Explosion hazard : Pressurised container: May burst if heated. Reactivity in case of fire : In the event of fire hazardous gases may occur.

5.3. Advice for firefighters

Firefighting instructions : Move container from fire area if it can be done without risk. Use water spray or fog for cooling

exposed containers.

Protection during firefighting : Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Wear

fire/flame resistant/retardant clothing.

Other information : Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not handle until all safety precautions have been read and understood. Eliminate every possible

source of ignition.

6.1.1. For non-emergency personnel

Emergency procedures : Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear

> appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be

contained. For personal protection, see section 8 of the SDS.

6.1.2. For emergency responders

: Wear recommended personal protective equipment. Protective equipment

: Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the **Emergency procedures**

MSDS.

6.2. Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Remove all sources of ignition. Keep away from combustible material. Stop the leak.

Other information : Prevent entry into waterways, sewer, basements or confined areas.

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6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from sources of ignition - No smoking. Do not pierce or burn, even after use. Use only

outdoors or in a well-ventilated area. Ground/bond container and receiving equipment. Avoid prolonged exposure. Avoid contact with eyes. Observe good industrial hygiene practices. Do not eat, drink or smoke when using this product. Wear appropriate personal protective equipment. Keep

only in original container. Avoid release to the environment.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in a well-

ventilated place. Keep container tightly closed. Keep away from ignition sources.

Storage class (LGK, TRGS 510) : LGK 2B - Aerosol dispensers and lighters

7.3. Specific end use(s)

Coating.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

pentane (109-66-0)		
Germany - Occupational Exposure Limits (TRGS 900)		
Local name	Pentan	
AGW (OEL TWA) [1]	3000 mg/m³	
AGW (OEL TWA) [2]	1000 ppm	
AGW (OEL C)	6000 mg/m³	
AGW (OEL C) [ppm]	2000 ppm	
Remark	DFG;EU;Y	
Regulatory reference	TRGS900	
butane (106-97-8)		
Germany - Occupational Exposure Limits (TRGS 9	900)	
Local name	Butan	
AGW (OEL TWA) [1]	2400 mg/m³	
AGW (OEL TWA) [2]	1000 ppm	
AGW (OEL C)	9600 mg/m³	
AGW (OEL C) [ppm]	4000 ppm	
Remark	DFG	
Regulatory reference	TRGS900	
Propane (74-98-6)		
Germany - Occupational Exposure Limits (TRGS 9	900)	
Local name	Propan	
AGW (OEL TWA) [1]	1800 mg/m³	
AGW (OEL TWA) [2]	1000 ppm	
Peak exposure limitation factor	4(II)	
Remark	DFG	

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Regulatory reference TRGS900

Germany - Occupational Exposure Limits (Generic OEL data)

DFG-MAK Liste (empfohlene Arbeitsplatzgrenswerte)

Propan (CAS 74-98-6)

1800 mg/m3 (8-Stunden); 7200 mg/m3 (15-Minuten)

isobutane (75-28-5)

Germany - Occupational Exposure Limits (TRGS 900)

 Local name
 Isobutan

 AGW (OEL TWA) [1]
 2400 mg/m³

 AGW (OEL TWA) [2]
 1000 ppm

 AGW (OEL C)
 9600 mg/m³

 AGW (OEL C) [ppm]
 4000 ppm

 Peak exposure limitation factor
 4(II)

 Remark
 DFG

Germany - Occupational Exposure Limits (Generic OEL data)

DFG-MAK Liste (empfohlene Arbeitsplatzgrenswerte)

iso-Butan (CAS 75-28-5)

Regulatory reference

2400 mg/m3 (8-Stunden); 9600 mg/m3 (15-Minuten)

TRGS900

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

pentane (109-66-0)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal 432 mg/kg bodyweight/day

Long-term - systemic effects, inhalation 3000 mg/m³

DNEL/DMEL (General population)

Long-term - systemic effects,oral 214 mg/kg bodyweight/day

Long-term - systemic effects, inhalation 643 mg/m³

Long-term - systemic effects, dermal 214 mg/kg bodyweight/day

PNEC (Water)

PNEC aqua (freshwater) 230 μ g/L PNEC aqua (marine water) 230 μ g/L PNEC aqua (intermittent, freshwater) 880 μ g/L

PNEC (Sediment)

PNEC sediment (freshwater) 1.2 mg/kg dwt
PNEC sediment (marine water) 1.2 mg/kg dwt

PNEC (Soil)

PNEC soil 0.55 mg/kg dwt

PNEC (STP)

PNEC sewage treatment plant 3600 µg/L

8.1.5. Control banding

No additional information available

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8.2. Exposure controls

8.2.1. Appropriate engineering 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.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.

8.2.2.1. Eye and face protection

Eye protection:

If skin or eye contact with the product is probable, protective glasses with side shield are recommended

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Wear appropriate protective gloves for prolonged or repeated skin contact

Other skin protection

Materials for protective clothing:

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

8.2.2.3. Respiratory protection

Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

8.2.2.4. Thermal hazards

Thermal hazard protection:

Wear appropriate thermal protective clothing, when necessary.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Inform appropriate managerial or supervisory personnel of all environmental releases.

Other information:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Gas
Appearance : aerosol.

Colour : Green. Blue. Red. white

Odour Odour : Characteristic.
Odour threshold : No data available pH : No data available Relative evaporation rate (butylacetate=1) : No data available Melting point : No data available Freezing point : No data available

Boiling point : -44 °C

Flash point : aerosol|Not applicable
Auto-ignition temperature : No data available
Decomposition temperature : No data available

Flammability (solid, gas)

Vapour pressure

Relative vapour density at 20 °C

Relative density

Density

Extremely flammable aerosol

2700 hPa (@ 20 °C)

No data available

No data available

1.28 g/m³

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Solubility : Water: Negligible
Log Pow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

Explosive properties : May form explosive/flammable vapor/air mixtures during use.

Oxidising properties : No data available

9.2. Other information

VOC (EU) : Not applicable. Ignition temperature : 365 °C (689 °F)

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Hydrocarbon fragments.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Based on available data, the classification criteria are not met Based on available data, the classification criteria are not met Acute toxicity (dermal) Acute toxicity (inhalation) Based on available data, the classification criteria are not met 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 Based on available data, the classification criteria are not met Respiratory or skin sensitisation Based on available data, the classification criteria are not met Germ cell mutagenicity : Based on available data, the classification criteria are not met Carcinogenicity Reproductive toxicity : Based on available data, the classification criteria are not met STOT-single exposure May cause drowsiness or dizziness.

	,
pentane (109-66-0)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Based on available data, the classification criteria are not met
Aspiration hazard : Based on available data, the classification criteria are not met

Potential adverse human health effects and symptoms : Occupational exposure to the substance or mixture may cause adverse effects

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term

(acute)

: Not classified

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Hazardous to the aquatic environment, long-term (chronic)

: Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

Persistence and degradability	Readily biodegradable. (OECD 301F method).
Biodegradation	87 %
butane (106-97-8)	
Persistence and degradability	Readily biodegradable.
Propane (74-98-6)	

Readily biodegradable.

12.3. Bioaccumulative potential

Persistence and degradability

171
3.39
3.45 @ 25 °C
1.09 – 2.8 @ 20 °C, pH 7

Propane (74-98-6)

Log Pow 1.09 – 2.8 @ 20 °C, pH 7

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Occlusionsspray

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

12.6. Other adverse effects

Other adverse effects : No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Dispose of in accordance with local regulations. Empty containers or liners may retain some
	product residues. This material and its container must be disposed of in a safe manner (see:
	Disposal instructions).

Waste treatment methods : Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches

collector's sorting instructions.

Product/Packaging disposal recommendations : Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

with chemical or used container. Dispose of contents/container in accordance with licensed

disposal.

Additional information : Dispose in accordance with all applicable regulations.

European List of Waste (LoW) code : 08 02 01 - waste coating powders 15 01 04 - metallic packaging

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

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14.1. UN number

 UN-No. (ADR)
 : UN 1950

 UN-No. (IMDG)
 : UN 1950

 UN-No. (IATA)
 : UN 1950

 UN-No. (ADN)
 : UN 1950

 UN-No. (RID)
 : UN 1950

14.2. UN proper shipping name

Proper Shipping Name (ADR) : AEROSOLS
Proper Shipping Name (IMDG) : AEROSOLS
Proper Shipping Name (IATA) : Aerosols, flammable
Proper Shipping Name (ADN) : AEROSOLS
Proper Shipping Name (RID) : AEROSOLS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 2.1
Danger labels (ADR) : 2.1

IMDG

Transport hazard class(es) (IMDG) : 2.1
Danger labels (IMDG) : 2.1

IATA

Transport hazard class(es) (IATA) : 2.1 Hazard labels (IATA) : 2.1

ADN

Transport hazard class(es) (ADN) : 2.1
Danger labels (ADN) : 2.1

RID

Transport hazard class(es) (RID) : 2.1
Danger labels (RID) : 2.1

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : No supplementary information available.

14.6. Special precautions for user

Overland transport

Classification code (ADR) : 5F

Special provisions (ADR) : 190, 327, 344, 625

Limited quantities (ADR) : 11
Packing instructions (ADR) : P207
Tunnel restriction code (ADR) : D

Transport by sea

EmS-No. (Spillage)

Special provisions (IMDG) : 63, 190, 277, 327, 344, 381, 959

: S-U

Packing instructions (IMDG) : P207, LP200 EmS-No. (Fire) : F-D

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Stowage category (IMDG) : None

Air transport

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Y203
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 203
PCA max net quantity (IATA) : 75kg
CAO packing instructions (IATA) : 203
CAO max net quantity (IATA) : 150kg

Special provisions (IATA) : A145, A167, A802

ERG code (IATA) : 10L

Inland waterway transport

Classification code (ADN) : 5F

Special provisions (ADN) : 190, 327, 344, 625

Limited quantities (ADN) : 1 L

Rail transport

Special provisions (RID) : 190, 327, 344, 625

Limited quantities (RID) : 1L

Packing instructions (RID) : P207, LP200

Hazard identification number (RID) : 23

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

EU restriction list (REACH Annex XVII)

Reference code	Applicable or
3(a)	pentane
3(b)	pentane
3(c)	pentane

40. pentane ; butane ; Propane ; isobutane

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : Not applicable.

Directive 2012/18/EU (SEVESO III)

Seveso Additional information : P3a

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Listed in the 12. BImSchV (Annex I) under: 1.2.3.1

- Quantity threshold for operational area under § 1 para. 1

- Sentence 1 :150000 kg - Sentence 2 :500000 kg

15.2. Chemical safety assessment

No additional information available

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SECTION 16: Other information

Indication of changes:

Section 1 - Section 16.

Full text of H- and EUH-statements

Aerosol 1 Aerosol, Category 1

Aquatic Chronic 2 Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3 Hazardous to the aquatic environment — Chronic Hazard, Category 3

Asp. Tox. 1 Aspiration hazard, Category 1
Flam. Gas 1A Flammable gases, Category 1A
Flam. Liq. 1 Flammable liquids, Category 1
H220 Extremely flammable gas.
H222 Extremely flammable aerosol.

H224 Extremely flammable liquid and vapour.
H229 Pressurised container: May burst if heated.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
Press. Gas (Comp.) Gases under pressure : Compressed gas

STOT SE 3 Specific target organ toxicity — Single exposure, Category 3, Narcosis

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Aerosol 1 H222;H229 Expert judgment
STOT SE 3 H336 Expert judgment
Aguatic Chronic 3 H412 Calculation method

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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