

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Okklean Occlusion spray non flammable

Revision date: 09.01.2018

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

1.1. Product identifier

Okklean Occlusion spray non flammable

Further trade names

(-golden, -green, -blue, -red, -white)

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

Use of the substance/mixture

Occlusion spray

1.3. Details of the supplier of the safety data sheet

Company name: DFS-DIAMON GmbH
 Street: Ländenstrasse 1
 Place: D-93339 Riedenburg
 Telephone: +49 (0) 9442 9189 0
 Contact person: Andreas Beck
 e-mail: andreas.beck@dfs-diamon.de
 Internet: <http://www.dfs-diamon.de>

1.4. Emergency telephone number: +49 (0) 9442 9189 0 Mo-Fr 9:00 - 15:00 UTC+1

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
 Aerosol: Aerosol 3
 Specific target organ toxicity - single exposure: STOT SE 3
 Hazardous to the aquatic environment: Aquatic Chronic 3
 Hazard Statements:
 Pressurised container: May burst if heated.
 May cause drowsiness or dizziness.
 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

pentane

Signal word: Warning

Pictograms:



Hazard statements

H229 Pressurised container: May burst if heated.
 H336 May cause drowsiness or dizziness.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P251 Do not pierce or burn, even after use.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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P312	Call a POISON CENTER/doctor if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of waste according to applicable legislation

Special labelling of certain mixtures

8 % by mass of the contents are flammable.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
64-17-5	ethanol, ethyl alcohol			1 - < 5 %
	200-578-6	603-002-00-5	01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319			
109-66-0	pentane			1 - < 5 %
	203-692-4	601-006-00-1	01-2119459286-30	
	Flam. Liq. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H336 H304 H411 EUH066			

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

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water.

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

No information available.

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

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable. Vapours can form explosive mixtures with air.

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Heating causes rise in pressure with risk of bursting.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not pierce or burn, even after use. Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation as well as local exhaust at critical locations.

Advice on protection against fire and explosion

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

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

Advice on storage compatibility

No special measures are necessary.

7.3. Specific end use(s)

Occlusion spray

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
109-66-0	Pentane	600	1800		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

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DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
64-17-5	ethanol, ethyl alcohol		
Worker DNEL, long-term	inhalation	systemic	950 mg/m ³
Worker DNEL, acute	inhalation	local	1900 mg/m ³
Worker DNEL, long-term	dermal	systemic	343 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	114 mg/m ³
Consumer DNEL, acute	inhalation	local	950 mg/m ³
Consumer DNEL, long-term	dermal	systemic	206 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	87 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment	Value	
64-17-5	ethanol, ethyl alcohol	
Freshwater	0,96 mg/l	
Marine water	0,79 mg/l	
Micro-organisms in sewage treatment plants (STP)	580 mg/l	
Freshwater sediment	3,6 mg/kg	
Marine sediment	2,9 mg/kg	
Secondary poisoning	0,72 mg/kg	
Soil	0,63 mg/kg	

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Do not breathe gas/fumes/vapour/spray.

Eye/face protection

Wear eye protection/face protection.

Hand protection

Wear suitable gloves.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid	
Colour:	red	
Odour:	characteristic	
pH-Value:		not determined

Changes in the physical state

Melting point:		not determined
Initial boiling point and boiling range:		-26 °C
Flash point:		not determined

Flammability

Solid:		not applicable
Gas:		not applicable

Explosive properties

Vapours can form explosive mixtures with air.
Heating causes rise in pressure with risk of bursting.

Lower explosion limits:		not determined
Upper explosion limits:		not determined
Ignition temperature:		400 °C

Auto-ignition temperature

Solid:		not applicable
Gas:		not applicable

Decomposition temperature:		not determined
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Oxidizing properties

Not oxidising.

Vapour pressure: (at 20 °C)		5740 hPa
Vapour pressure: (at 50 °C)		13200 hPa

Density:		not determined
Water solubility:		practically insoluble

Solubility in other solvents

not determined

Partition coefficient:		not determined
Viscosity / dynamic:		not determined
Viscosity / kinematic:		not determined
Vapour density:		not determined
Evaporation rate:		not determined

9.2. Other information

Odour threshold: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

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10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Heating causes rise in pressure with risk of bursting. Vapours can form explosive mixtures with air.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from sunlight.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64-17-5	ethanol, ethyl alcohol				
	oral	LD50 mg/kg	10470	Rat	OECD 401
	inhalative (4 h) vapour	LC50	117 mg/l	Rat	OECD 402
109-66-0	pentane				
	oral	LD50 mg/kg	>2000	Rat	OECD 401
	inhalative (4 h) vapour	LC50	364 mg/l	Rat	GESTIS

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause drowsiness or dizziness. (pentane)

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.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64-17-5	ethanol, ethyl alcohol					
	Acute fish toxicity	LC50 mg/l	14200	96 h	Pimephales promelas (fathead minnow)	IUCLID
	Acute crustacea toxicity	EC50 mg/l	9268 - 14221	48 h	Daphnia magna	IUCLID
109-66-0	pentane					
	Acute fish toxicity	LC50	4,26 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	OECD 203
	Acute algae toxicity	ErC50	7,51 mg/l	72 h	Scenedesmus subspicatus	OECD 201
	Acute crustacea toxicity	EC50	9,74 mg/l	48 h	Daphnia magna	IUCLID

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
64-17-5	ethanol, ethyl alcohol			
	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	97 %	28	IUCLID
	Readily biodegradable (according to OECD criteria).			
109-66-0	pentane			
	O2 consumption	87 %	28	OECD F
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-17-5	ethanol, ethyl alcohol	-0,31
109-66-0	pentane	3,39

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

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160505 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers other than those mentioned in 16 05 04

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS (trans-1,3,3,3-Tetrafluoroprop-1-ene)
14.3. Transport hazard class(es): 2
14.4. Packing group: -
 Hazard label: 2.2



Classification code: 5A
 Special Provisions: 190 327 344 625
 Limited quantity: 1 L
 Excepted quantity: E0
 Transport category: 3
 Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS (trans-1,3,3,3-Tetrafluoroprop-1-ene)
14.3. Transport hazard class(es): 2
14.4. Packing group: -
 Hazard label: 2.2



Classification code: 5A
 Special Provisions: 190 327 344 625
 Limited quantity: 1 L
 Excepted quantity: E0

Marine transport (IMDG)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS (trans-1,3,3,3-Tetrafluoroprop-1-ene)
14.3. Transport hazard class(es): 2.2
14.4. Packing group: -
 Hazard label: 2.2



Special Provisions: 63, 190, 277, 327, 344, 381, 959
 Limited quantity: 1000 mL
 Excepted quantity: E0
 EmS: F-D, S-U

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Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS, non-flammable (trans-1,3,3,3-Tetrafluoroprop-1-ene)
14.3. Transport hazard class(es):	2.2
14.4. Packing group:	-
Hazard label:	2.2



Special Provisions:	A98 A145 A167 A802
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y203
Excepted quantity:	E0
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No information available.

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3: ethanol, ethyl alcohol; pentane

Entry 40: Ethanol; Pentan

2010/75/EU (VOC): < 95 %

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water contaminating class (D): 2 - clearly water contaminating

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

ethanol, ethyl alcohol

pentane

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,5,7,8,9,10,11,14,15.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

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(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 Harmonized 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

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Aerosol 3; H229	On basis of test data
STOT SE 3; H336	Bridging principle "Aerosols"
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

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.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)