

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Occlusion spray flammable

Print date: 12.02.2015

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

1.1. Product identifier

Occlusion spray flammable

Further trade names

(-gold, -blue, -red, -green, -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: Bernd Hildebrandt
e-mail: bernd.hildebrandt@dfs-diamon.de
Internet: <http://www.dfs-diamon.de>

1.4. Emergency telephone number: +49 (0) 9442 9189 0 Mo-Fr 9 a.m. – 3 p.m. UTC+1

SECTION 2: Identification of hazards

2.1. Classification of the substance or mixture

Indications of danger: F+ - Extremely flammable

R phrases:

Extremely flammable.

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

Hazard categories:

Aerosol: Aerosol 1

Hazard Statements:

Extremely flammable aerosol.

Pressurized container: may burst if heated.

2.2. Label elements

Signal word: Danger

Pictograms: GHS02



Hazard statements

Extremely flammable aerosol.

Pressurized container: may burst if heated.

Safety recommendations

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

Do not spray on an open flame or other ignition source.

Do not pierce or burn, even after use.

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

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2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
203-448-7	butane	10 - < 25 %
106-97-8	F+ - Extremely flammable R12	
601-004-00-0	Flam. Gas 1; H220	
01-2119474691-32		
200-827-9	propane	10 - < 25 %
74-98-6	F+ - Extremely flammable R12	
601-003-00-5	Flam. Gas 1; H220	
01-2119486944-21		
209-151-9	Zinc stearate	10 - < 25 %
557-05-1		
	Aquatic Acute 1 (M-Factor = 1); H400	

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid

4.1. Description of first aid measures

After inhalation

Provide fresh air.

After contact with skin

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

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

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 devices

Suitable extinguishing devices

Carbon dioxide (CO₂), foam, extinguishing powder.

Unsuitable extinguishing media

Water.

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5.2. Special hazards arising from the substance or mixture

Extremely flammable, vapors can form explosive mixtures with air.

5.3. Advice for firefighters

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

Additional information

Use water spray jet to protect persons and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow water to enter drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

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.

Advice on protection against fire and explosion

Do not spray on naked flames or any incandescent material. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharge. Vapors can form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on storage compatibility

Do not store together with: oxidizing agent, pyrophoric or self-heating substances.

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
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL
557-05-1	Zinc distearate, respirable dust	-	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

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8.2. Exposure controls**Protective and hygiene measures**

Take off contaminated clothing. Wash hands before breaks and after work. Do not consume food or drinks while using the product.

**Eye/face protection**

Wear eye/face protection.

**Hand protection**

When handling 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 should be chosen depending on 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 with the supplier of these gloves.

**Skin protection**

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Color:	red
Odor:	odorless

Test method

pH-Value:	not determined
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Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	-42 °C
Flash point:	-104 °C

Flammability

Solid:	not applicable
Gas:	not applicable
Lower explosion limits:	1,4 vol. %
Upper explosion limits:	9,4 vol. %
Ignition temperature:	365 °C

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

Not oxidizing.

Vapour pressure: (at 20 °C)	8327 hPa
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Vapor pressure: 17081 hPa
(at 50 °C)

Density: not determined

Water solubility: insoluble

Solubility in other solvents

not determined

Partition coefficient: not determined

Vapor density: not determined

Evaporation rate: not determined

Solvent content: 24,35 %

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

Extremely flammable, ignition hazard.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapors can form explosive mixtures with air.

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.

Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
557-05-1	Zinkstearat				
	oral	LD50	> 10000 mg/kg	Rat	IUCLID
	dermal	LD50	> 2000 mg/kg	Rabbit	IUCLID
	inhalative (1 h) aerosol	LC50	> 200 mg/l	Rat	IUCLID

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.

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STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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.

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

The product is not: ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
106-97-8	butane					
	Acute fish toxicity	LC50	27,98 mg/l	96 h		US-EPA -(Q)SAR
	Acute algae toxicity	ErC50	7,71 mg/l			US-EPA -(Q)SAR
	Acute crustacea toxicity	EC50	14,22 mg/l	48 h		US-EPA -(Q)SAR
557-05-1	Zinkstearat					
	Acute fish toxicity	LC50	0,984 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	IUCLID
	Acute algae toxicity	ErC50	0,97 mg/l	72 h	Pseudokirchneriella subcapitata	IUCLID
	Acute crustacea toxicity	EC50	0,77 mg/l	48 h	Daphnia magna (Big water flea)	IUCLID

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
106-97-8	butane	2,89
74-98-6	propane	2,36

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.

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Waste disposal number of waste from residues/unused products

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 (propane, butane)
14.3. Transport hazard class(es): 2
14.4. Packing group: -
 Hazard label: 2.1



Classification code: 5F
 Special provisions: 190 327 344 625
 Limited quantity: 1 L
 Transport category: 2
 Tunnel restriction code: D

Other applicable information (land transport)

Excepted quantity: E0

Inland waterways transport (ADN)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS (propane, butane)
14.3. Transport hazard class(es): 2
14.4. Packing group: -
 Hazard label: 2.1



Classification code: 5F
 Special provisions: 190 327 344 625
 Limited quantity: 1 L

Other applicable information (inland waterways transport)

Excepted quantity: E0

Marine transport (IMDG)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS (propane, butane)
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
 Hazard label: 2.1

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Special provisions: 63, 190, 277, 327, 344, 959
 Limited quantity: 1000 mL
 EmS: F-D, S-U

Other applicable information (marine transport)

Excepted quantity: E0

Air transport (ICAO)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS flammable (propane, butane)
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
 Hazard label: 2.1



Special provisions: A145 A167 A802
 Limited quantity passenger: 30 kg G
 IATA-packing instructions - Passenger: 203
 IATA-max. quantity - Passenger: 75 kg
 IATA-packing instructions - Cargo: 203
 IATA-max. quantity - Cargo: 150 kg

Other applicable information (air transport)

Excepted quantity: E0
 Passenger-LQ: Y203

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Warning: flammable gases.

14.7. Transport in bulk according to Annex II of MARPOL73/78 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

1999/13/EC (VOC): < 50 %

Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC, 2008/47/EC

National regulatory information

Employment restrictions: Observe employment restrictions for adolescents.
 Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

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

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SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s):
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

Abbreviations and acronyms

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 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%

Relevant R-phrases (Number and full text)

Extremely flammable.

Relevant H- and EUH-phrases (Number and full text)

Extremely flammable gas.
Extremely flammable aerosol.
Pressurized container: may burst if heated.
Very toxic to aquatic life.

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 material.

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