



ES WIRKT.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Defenol-CS Spray

Print date 23.05.2023
Revision date 23.05.2023
Version 8.0 (en)
replaces version of 09.07.2020 (7.0)

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

1.1 Product identifier

Trade name/designation Defenol-CS Spray
Unique Formula Identifier UFI: F2MU-A93F-Q00U-26FM

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

Use of the substance/mixture
Self-defence aerosol

1.3 Details of the supplier of the safety data sheet

Manufacturer
F.W.Klever
Hauptstraße 20
D-84168 Aham
Telephone +49 (0) 8744 96 99 10
Telefax + 49 (0) 8744 96 99 96
E-mail info@ballistol.de
Website www.ballistol.de

Department responsible for information:
Qualitätssicherung
Telephone +49 (0) 8744 96 99 80

E-mail (competent person):
info@ballistol.de

*** 1.4 Emergency telephone number**

Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

*** SECTION 2: Hazards identification**

*** 2.1 Classification of the substance or mixture**

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

| | Classification | Classification procedure |
|----------------------|----------------|--------------------------|
| Aerosol 1, H222 H229 | | |
| Resp. Sens. 1A, H334 | | |

Hazard statements for physical hazards

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

Hazard statements for health hazards

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

*** 2.2 Label elements**

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

Hazard pictograms



GHS02



GHS08



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Signal word

Danger

Hazard statements

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements

P102 Keep out of reach of children.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P251 Do not pierce or burn, even after use.

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.

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

P501 Dispose of contents/container to recycling

2.3 Other hazards

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Hazardous ingredients

| CAS No. | EC No. | Substance name | Concentration | Classification according to Regulation (EC) No 1272/2008 [CLP] | SCL/ M/ ATE |
|-----------|-----------|---------------------------------------|----------------|--|-------------|
| 74-98-6 | 200-827-9 | propane | < 15 weight-% | Flam. Gas 1; H220 Press. Gas | |
| 106-97-8 | 203-448-7 | butane | < 15 weight-% | Flam. Gas 1; H220 Press. Gas | |
| 2698-41-1 | 220-278-9 | 2-Chlorobenzylidenemalononitrile (CS) | > 0.2 weight-% | Acute Tox. 3; H301 Resp. Sens. 1; H334(inhalation) Skin Sens. 1; H317 Aquatic Acute 1; H400 | |

Remark

Aerosol: Propellant propane/butane gas

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated, saturated clothing immediately.



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Following inhalation

Provide fresh air.
In the event of symptoms refer for medical treatment.

Following skin contact

Wash immediately with:
Water

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion

Rinse mouth immediately and drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

The following symptoms may occur:
At inhalation of large quantities (whole can contents) lung edema possible.
Cough
Dyspnoea
Headache

Effects

Respiratory complaints

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Foam
ABC-powder
Carbon dioxide (CO₂)
Water mist

Unsuitable extinguishing media

Strong water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In the event of fire the following can be released:
Nitrogen oxides (NO_x)
Carbon monoxide
In connection with water prussic acid splitting-off possible

5.3 Advice for firefighters

Special protective equipment for firefighters

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



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Additional information

Use water spray jet to protect personnel and to cool endangered containers.
Heating causes rise in pressure with risk of bursting

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.
Keep people away and stay on the upwind side.
Remove all sources of ignition.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment

Flush away residues with water.

6.4 Reference to other sections

No data available

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Do not spray on naked flames or any incandescent material.
Keep away from sources of ignition - No smoking.
Protect aerosols from temperatures exceeding 50°C/ 122°F
Do not open with force or incinerate, even when empty
Do not inhale aerosols
n.a. (non-applicable), no working material

Advices on general occupational hygiene

n.a. (non-applicable), no working material

7.2 Conditions for safe storage, including any incompatibilities

Storage class

2B Aerosol dispensers and lighters

Materials to avoid

Do not store together with:
Food and feedingstuffs

Further information on storage conditions

Protect from extreme heat and cold.

7.3 Specific end use(s)

Recommendation

Only to use for self-defence, do not spray upwind



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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

| CAS No. | EC No. | Substance name | occupational exposure limit value |
|-----------|-----------|-----------------------------------|---|
| 2698-41-1 | | o-Chlorobenzylidene malononitrile | Short-term(ml/m ³) 0,05 (1)(2) (1) Skin (2) 15 minutes average value (IE) |
| 106-97-8 | 203-448-7 | n-Butane | 600 [ml/m ³ (ppm)] 1450 [mg/m ³] Short-term(ml/m ³) 750 Short-term(mg/m ³) 1810 (UK) |
| 106-97-8 | 203-448-7 | n-Butane | Short-term(ml/m ³) 1000 (1) (1) 15 minutes average value (IE) |

8.2 Exposure controls

Personal protection equipment

Eye/face protection

safety goggles, in case of increased risk add protective face shield
n.a. (non-applicable), no working material

Hand protection

Gloves with long cuffs
n.a. (non-applicable), no working material

Body protection:

n.a. (non-applicable), no working material

Respiratory protection

n.a. (non-applicable), no working material
Suitable respiratory protection apparatus:
Self-contained respirator (breathing apparatus)

Environmental exposure controls

Technical measures to prevent exposure

n.a. (non-applicable), no working material

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

Aerosol

Colour

colourless
clear

Odour

irritant



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Safety relevant basis data

| | Value | Method | Source, Remark |
|--|---|--------|---|
| Odour threshold: | not determined | | |
| Melting point/freezing point | not determined | | |
| Boiling point or initial boiling point and boiling range | not determined | | |
| flammability | not determined | | |
| Lower and upper explosion limit | Upper explosion limit approx. 10.9 Vol-% | | (Propan) |
| Lower and upper explosion limit | Lower explosion limit approx. 1.5 Vol-% | | (Propan) |
| Flash point | < -104 °C | | (Propan) |
| Auto-ignition temperature | approx. 465 °C | | Die Daten beziehen sich auf das Lösemittel. |
| Decomposition temperature | not determined | | |
| pH | not determined | | |
| Viscosity | not determined | | |
| Solubility(ies) | Water solubility | | multimiscible |
| Partition coefficient n-octanol/water (log value) | not determined | | |
| Vapour pressure | approx. 7.5 bar (20°C) | | pressure inside of the can |
| Density and/or relative density | approx. 0.8- 0.9 g/cm ³ (20°C) | | information concerns to liquid phase |
| Relative vapour density | not determined | | |
| particle characteristics | not determined | | |

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Container under pressure. Protect from direct exposure to sunlight and temperatures exceeding 50°C/122°F.

10.5 Incompatible materials

Oxidising agent, strong

10.6 Hazardous decomposition products

No hazardous decomposition products known.



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Additional information

Product is stable under normal storage conditions

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Animal data

| | Effective dose | Method, Evaluation | Source, Remark |
|---------------------------|----------------------------------|--------------------|--|
| Acute oral toxicity | approx. 178 mg/kg Species Rat | | Detail refers to the irritant (Contents of 4 can) |
| Acute dermal toxicity | not determined | | |
| Acute inhalation toxicity | not determined | | |

Skin corrosion/irritation

Animal data

| Result / Evaluation | Method | Source, Remark |
|---------------------|--------|--------------------------------------|
| Irritant. | | Practical experience/human evidence. |

Serious eye damage/irritation

Animal data

| Result / Evaluation | Method | Source, Remark |
|-------------------------------------|--------|----------------|
| slightly irritant Species Rabbit | | |

Sensitisation to the respiratory tract

not determined

Skin sensitisation

Animal data

| Result / Evaluation | Dose / Concentration | Method | Source, Remark |
|---|----------------------|--------|----------------|
| Sensitizing was watched while permanent skin contact with active substance (CS) | | | |

Germ cell mutagenicity

not determined

Carcinogenicity

not determined

Reproductive toxicity

not determined

STOT-single exposure

not determined

STOT-repeated exposure

not determined

Aspiration hazard

not determined



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11.2 Information on other hazards

Other information

Irritating to respiratory system.
Irritates mucous membranes.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

| | Effective dose | Method, Evaluation | Source, Remark |
|---|---|--------------------|--|
| Acute (short-term) fish toxicity | LC50: approx. 61 mg/L Species <i>Oncorhynchus mykiss</i> (Rainbow trout) Test duration 96 h | | Information are based on results of similar products |
| Chronic (long-term) fish toxicity | not determined | | |
| Acute (short-term) toxicity to crustacea | not determined | | |
| Chronic (long-term) toxicity to aquatic invertebrate | not determined | | |
| Acute (short-term) toxicity to algae and cyanobacteria | not determined | | |
| Chronic (long-term) toxicity to aquatic algae and cyanobacteria | not determined | | |
| Toxicity to other aquatic plants/organisms | not determined | | |
| Toxicity to microorganisms | not determined | | |

12.2 Persistence and degradability

| | Value | Method | Source, Remark |
|----------------|-------|----------------|----------------------------|
| Biodegradation | | Photooxidation | citation Biodegradable. |

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

No data available



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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste codes/waste designations according to EWC/AVV

| Waste code product | Waste name |
|--------------------|-----------------------|
| 200301 | mixed municipal waste |

Appropriate disposal / Package

Completely emptied packages can be recycled.

SECTION 14: Transport information

| | Land transport (ADR/RID) | Sea transport (IMDG) | Air transport (ICAO-TI / IATA-DGR) |
|--|-----------------------------|----------------------|------------------------------------|
| 14.1 UN number or ID number | UN 1950 | UN 1950 | UN 1950 |
| 14.2 UN proper shipping name | AEROSOLS | AEROSOLS | Aerosols, flammable |
| 14.3 Transport hazard class(es) | 2.1 | 2.1 | 2.1 |
| 14.4 Packing group | - | - | - |
| 14.5 Environmental hazards | No | No | No |

14.6 Special precautions for user

No data available

14.7 Maritime transport in bulk according to IMO instruments

No data available

All transport carriers

Item 2.3.1.2 is forbidden to IATA, section 2 pepper/Muskat/Tear gas spray etc. which substances confusing or making incompetently contain in accordance with at the person, in the hand baggage and in pieces of baggage given up!

Land transport (ADR/RID)

| | |
|----------------------------|--------------------|
| UN number or ID number | UN 1950 |
| UN proper shipping name | AEROSOLS |
| Transport hazard class(es) | 2.1 |
| Hazard label(s) | 2.1 |
| Classification code | 5F |
| Packing group | - |
| Environmental hazards | No |
| Limited quantity (LQ) | 1 L |
| Special provisions | 190, 327, 344, 625 |
| Tunnel restriction code | D |

Sea transport (IMDG)

| | |
|----------------------------|----------|
| UN number or ID number | UN 1950 |
| UN proper shipping name | AEROSOLS |
| Transport hazard class(es) | 2.1 |



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| | |
|-----------------------|----------|
| Packing group | - |
| Environmental hazards | No |
| Limited quantity (LQ) | 1 L |
| Marine pollutant | No |
| EmS | F-D, S-U |

Air transport (ICAO-TI / IATA-DGR)

| | |
|----------------------------|---------------------|
| UN number or ID number | UN 1950 |
| UN proper shipping name | Aerosols, flammable |
| Transport hazard class(es) | 2.1 |
| Packing group | - |
| Environmental hazards | No |

SECTION 15: Regulatory information

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

EU legislation

Restrictions on use

Only to use for self-defence

Other regulations (EU)

To follow:

Aerosol directive (75/324/EEC)

15.2 Chemical Safety Assessment

National regulations

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Additional information

National and local regulations concerning chemicals shall be observed.

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.

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.

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

| | |
|------|--|
| H220 | Extremely flammable gas. |
| H301 | Toxic if swallowed. |
| H317 | May cause an allergic skin reaction. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H400 | Very toxic to aquatic life. |



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Indication of changes

* Data changed compared with the previous version