



ES WIRKT.

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

KO-CS Spray

Print date 18.08.2023
Revision date 18.08.2023
Version 7.0 (en)
replaces version of 23.05.2023 (6.0)

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

*** 1.1 Product identifier**

Trade name/designation KO-CS Spray
Unique Formula Identifier UFI: 9GJS-XKM5-D005-V137

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**

Supplier

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

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 procedure

Aerosol 1, H222 H229
Resp. Sens. 1, H334



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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

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	



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Remark

Concentration of propan / butan is the addition of both
Liquid phase contains ca. 1,2% CS (CAS:2698-41-1)

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated, saturated clothing immediately.

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



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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

Carbon dioxide (CO₂)

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.

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



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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

*** 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



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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

Aerosol

Colour

colourless
clear

Odour

irritant

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. 170 °C		Die Daten beziehen sich auf das Lösemittel.
Decomposition temperature	not determined		
pH	not determined		
Viscosity	not determined		
Solubility(ies)	Water solubility approx. 12 g/L		
Partition coefficient n-octanol/water (log value)	not determined		
Vapour pressure	approx.8- 9 bar (21-23°C)		pressure inside of the can
Density and/or relative density	approx.0.7- 0.8 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



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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

Gases/vapours, flammable

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		Inscription refers to active substance (CS), amount is equivalent to one 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
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)			



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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

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 Oncorhynchus mykiss (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

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available



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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

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

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



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Sea transport (IMDG)

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



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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.

Indication of changes

* Data changed compared with the previous version