

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Cold test spray

CAS number: -
EC number (EINECS/ELINCS): -
EC index number: -
REACH registration number: -

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

Identified uses of the substance or mixture: Cold test spray
Not recommended uses of the substance or mixture: Other

1.3 Details of the supplier of the safety data sheet

Manufacturer

ERKODENT Erich Kopp GmbH
Siemensstrasse 3

Telephone: 07445 8501 0
Fax: 07445 2092

D 72285 Pfalzgrafenweiler

Supplier

ERKODENT Erich Kopp GmbH
Siemensstrasse 3

Telephone: 07445 8501 0
Fax: 07445 2092

D 72285 Pfalzgrafenweiler

Information contact

ERKODENT Erich Kopp GmbH

Information Telephone: 07445 8501 21

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E-mail (competent person): w.heuchert@erkodent.com

Website: www.erkodent.com

National contact

ERKODENT Erich Kopp GmbH

Information Telephone: 07445 8501 0

Information fax:

E-mail (competent person): info@erkodent.com

Website:

1.4 Emergency telephone number

ERKODENT Erich Kopp GmbH
Only available during office hours.

Telephone: 07445 8501 0

1.5 Dept. responsible for information

Entwicklung +49 (0) 7445 8501-21

2. Hazards identification

2.1 Classification of the substance or mixture

Regulation (EC) No 1272/2008:
Flam. Aero. 1; H222 , Pres. Gas - Compr. or Liqu.; H280

Directive 67/548/EEC:
F+; R12

2.2 Label elements

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

Hazard pictograms:

Signal word: GHS02
Danger

H phrases: 222 Extremely flammable aerosol.
280 Contains gas under pressure; may explode if heated.

P phrases: 101 If medical advice is needed, have product container or label at hand.
102 Keep out of reach of children.
210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
211 Do not spray on an open flame or other ignition source.
251 Pressurized container: Do not pierce or burn, even after use.
410+412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

2.2.2 Labelling according to Directive 67/548/EEC

Hazard symbols:

R phrases: F+ Extremely flammable.
12 Extremely flammable.

S phrases: -

2.3 Other hazards

none

3. Composition/information on ingredients

3.1 Chemical characterization of the substance or mixture

Preparation related information hydrocarbons. Gases under pressure

3.2 Composition of the substance or mixture

Substance:	EC-no.:	CAS-No.:	INDEX no.:	REACH-no.:	Concentration:	Classification: EC 1272/2008(CLP):	Classification: 67/548/EEC:
butane	203-448-7	106-97-8	601-004-00-0		50-100%	Flam. Gas 1; H220	F+; R12

propane	200-827-9	74-98-6	601-003-00-5		25-50%	Flam. Gas 1; H220	F+; R12
Isobutan	200-857-2	75-28-5	601-004-00-0		<2,5%	Flam. Gas 1; H220	F+; R12

Ingredients with EC exposure limits

Substance:	EC-no.:	CAS-No.:	INDEX no.:	REACH-no.:	Concentration:	Classification: EC 1272/2008(CLP):	Classification: 67/548/EEC:

(The wording of the listed risk phrases is given in Chapter 16)

3.3 Additional information

none

4. First aid measures

4.1 Description of first aid measures

- General information:** No special measures are necessary.
- Following inhalation:** Provide fresh air. Seek medical attention if problems persist.
- After skin contact:** After contact with skin, wash immediately with plenty of water and soap.
- Following eye contact:** In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of troubles or persistent symptoms, consult an ophthalmologist.
- After ingestion:** Immediately get medical attention.
- Self-protection:** First aid assistant: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms:** No information available.
- Nature of Hazard:** No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Emergency aid:** No information available.
- Treatment:** No information available.

5. Fire fighting measures

5.1 General information

Use water spray/stream to protect personnel and to cool endangered containers.

5.2 Extinguishing media

- Suitable:** Carbon dioxide (CO₂). Sand. Extinguishing powder. Water fog. Alcohol resistant foam.
- Unsuitable:** Water. High power water jet.

5.3 Special hazards arising from the substance or mixture

No information available.

5.4 Advice for fire fighters

Special protective equipment for fire-fighters

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

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Wear personal protection equipment. Remove all sources of ignition. Avoid contact with skin, eyes and clothes.

6.2 Environmental precautions

Do not empty into drains or the aquatic environment. Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3 Methods and materials for containment and cleaning up

Provide adequate ventilation. none Water (with cleaning agent). Do not use water. Do not wash off with soap or other alkaline cleaning agents.

6.4 References to other sections

Treat the recovered material as prescribed in the section on waste disposal.

7. Handling and storage

7.1 Precautions for safe handling

Information for safe handling

Handle and open container with care.

Technical measures

Use extractor hood (laboratory).

Precautions against fire and explosion

Take precautionary measures against static discharges. Vapours can travel considerable distances to a source of ignition where they can ignite, flash back, or explode. Take precautionary measures against static discharges. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray into flames or ignition sources.

Additional information

none

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed in a cool place. Pressurised small gas containers (aerosol cans)

Packaging materials

Keep/Store only in original container.

Requirements for storerooms and containers

Keep container tightly closed in a cool place.

Information about storing together in storage facility

Keep away from food, drink and animal feedingstuffs.

Further information concerning storage conditions

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not

pierce or burn, even after use.

Storage class: 2 B Pressurized small gas containers (aerosol containers).

7.3 Specific end use(s)

Observe instructions for use.

8. Exposure controls / personal protection

8.1 Control parameters

8.1.1 Limits for occupational exposure

Exposure limit values

Substance:	CAS-No.:	Source:	Occupational exposure limit value:	Limitation of exposure peaks:	Remark:
butane	106-97-8	AGW	2400 mg/m ³ ; 1000 ml/m ³	4 (II)	DFG
propane	74-98-6	AGW	1800 mg/m ³ ; 1000 ml/m ³	4 (II)	DFG
Isobutan	75-28-5	AGW	2400 mg/m ³ ; 1000 ml/m ³	4 (II)	DFG

EC exposure limit values

Substance:	CAS-No.:	Source:	Occupational exposure limit value:	Limitation of exposure peaks:	Remark:
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8.1.2 DNEL and PNEC values

DNEL-values

Substance:	CAS-No.:	DNEL/DMEL	Industry	Professional	consumer
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PNEC-values

Substance:	CAS-No.:	PNEC	Worker, industry	Worker, professional	consumer
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8.1.3 Control-Banding

Control-Banding

none

8.1.4 Additional information

none

8.2 Exposure controls

Occupational exposure controls

XXXX Technical ventilation of workplace In case of insufficient ventilation, wear suitable respiratory equipment.

Chemical handling

Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work. Take off immediately all contaminated clothing.

Personal protection equipment

XXXX

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Hand protection

Type of chemical protective gloves to choose depends on the concentration and quantity of dangerous substances as well as on work place specifications. Suitable gloves type: Butyl caoutchouc (butyl rubber). CR (polychloroprene, chloroprene rubber). 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.

Eye protection

Tightly sealed safety glasses.

Skin protection

Protective clothing

Environmental exposure controls

refer to chapter 7. No further action is necessary.

Consumer exposure controls

refer to chapter 7. No further action is necessary.

8.3 Exposure scenario

none

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

State of matter: Aerosol
Colour: colourless
Odour: characteristic
Odour threshold: not determined

Safety relevant basis data

	Parameter	Value	Unit	Remark
Density:	at °C:	0,5609	g/cm ³	
Package density:				not applicable
pH:				not determined
Melting point / range:				not determined
Boiling temperature / range:		-44	°C	
Flash point:		-97	°C	
Flammability:				not applicable
Lower flammability limit:		365	°C	Ignition temperature in °C:
Upper flammability limit:				not determined
Explosion hazard:				XXXX not explosive. Vapours can form explosive mixtures with air.
Lower explosion limit:		1,5	Vol-%	
Upper explosion limit:		10,9	Vol-%	
Ignition temperature:				none Risk of selfignition.
Decomposition temperature:				not applicable
Oxidizing characteristics:				not determined
Vapour pressure:	ca.	300	kPa	
Relative vapour density:				not determined
Speed of vaporization/evaporation rate:				not applicable
Solubility in water:				miscible.
Fat solubility:				not determined
Solubility in	:			not determined

log P O/W (n-octanol / water):	not determined
Viscosity:	not determined
Solvent separation test:	not determined
Solvent content:	97,4 %

9.2 Other information

No information available.

10. Stability and reactivity

10.1 Reactivity

No risks worthy of mention. No data available

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

heat. UV-radiation/sunlight.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

Hazardous decomposition products: none

10.7 Additional information

none

11. Toxicological information

11.1 Information on toxicological effects

Data apply to the principal component.

Acute toxicity

Substance:	CAS-No.:	Toxicological information
butane	106-97-8	Inhalativ LC50/4h 658 mg/l

Specific symptoms in laboratory animals

Toxicological data are not available.

11.2 Irritation and etching

Irritant effect on the skin

Not an irritant.

Irritant effect on the eye

irritant.

Irritant effect on the respiratory tract

Toxicological data are not available.

Etching

not corrosive

11.3 Sensitization

none

11.4 Repeated dose toxicity

Toxicological data are not available.

11.5 CMR effects

Carcinogenicity

Toxicological data are not available.

Mutagenicity

Toxicological data are not available.

Reproductive toxicity

Toxicological data are not available.

11.6 General remarks

No information available.

Practical experience

No information available.

Other observations

No information available.

Additional information

Data arise from reference works and literature.

12. Ecological information

12.1 Toxicity

Do not empty into drains or the aquatic environment. There are no data available on the mixture itself.

Eco toxicity

Substance:	CAS-No.:	Ecotoxicity

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

not applicable

12.6 Other adverse effects

No information available.

12.7 Further ecological information

non-hazardous to water (nwg)

12.8 Further details

There are no data available on the mixture itself.

13. Disposal considerations

13.1 Waste treatment methods

Appropriate disposal/Product

Do not empty into drains or the aquatic environment. Dispose of waste in own country; otherwise, follow EC regulations. Waste disposal according to EC Directives 75/442/EEC and 91/689/EEC on waste and hazardous waste in their latest versions.

Appropriate disposal/ packaging

Waste disposal according to official state regulations.

Control report for waste code/ waste marking according to EAKV

Consult the local waste disposal expert about waste disposal.

Waste key product: 15 01 04 - Verpackungen aus Metall

Waste key packaging:

Remark

Waste disposal according to official state regulations.

14. Transport information

14.1 Overland transport (ADR/RID)

Proper Shipping name

Druckgaspackungen, entzündbar, <= 1000 cm³

UN No.: 1950

Label: 2.1

Packing Group:

Classification code: 2 5F

Remark: Packing Group: no Limited quantity (LQ): 1L Transport category: 2 Tunnel restriction code: D ; EQ: Code E0

14.2 Transport by sea (IMDG)

Proper Shipping name

Aerosols, flammable, <= 1000 cm³

UN-No.: 1950

Label: 2.1

Packing Group:

EmS-No.: F-D, S-U

MFAG:

Marine pollutant: No

Special Provisions: Limited quantity (LQ): 1L ; EQ: Code E0

Remark:

14.3 Air transport (ICAO-TI / IATA-DGR)

Proper Shipping name

Aerosols, flammable, <= 1000 cm³

UN/ID-No.: 1950

Label: 2.1

Packing Group:

Remark:

14.4 Mail

15. Regulatory information

15.1 Labelling

Hazardous component(s) for labelling

Special labelling of particular preparations

Betriebssicherheitsverordnung (BetrSichV)

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

EU-Regulations

Directive 1999/13/EC on the limitation of emissions of volatile organic compounds (VOC-RL)

ISO 11890-2 ASTM D 2369 VOC-value (in g/l): 50-100%

Regulation (EC) No 2037/2000 on substances that deplete the ozone layer

No information available.

Regulation (EC) No 850/2004 on persistent organic pollutants

No information available.

Regulation (EC) No 689/2008 concerning the export and import of dangerous chemicals

No information available.

Regulation (EC) No 648/2004 (Detergents regulation)

No information available.

Restrictions under Title VIII of Regulation (EC) No 1907/2006

No information available.

National regulations

Moreover, national legislation has to be observed!

Informations on working limitations

No information available.

Major Accidents Ordinance

No information available.

Storage class according to VCI

2 B Pressurized small gas containers (aerosol containers).

Water Hazard Class according to VwVwS

0 not a water pollutant

Technical Instructions on Air Quality Control (TA-Luft)

Class(es) NK 50-100%

Further regulations, limitations and legal requirements

No information available.

15.3 Chemical safety assessment

For this preparation a chemical safety assessment has been carried out:

Chemical safety assessments for substances in this mixture were not carried out.

16. Other information

16.1 Wording of the H and R-phrases under paragraph 3**Regulation (EC) No 1272/2008**

- 222 Extremely flammable aerosol.
280 Contains gas under pressure; may explode if heated.

Directive 67/548/EEC

- 12 Extremely flammable.

16.2 Training instructions

none

16.3 Recommended restrictions of use

No information available.

16.4 Further remarks

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.

16.5 Documentation of changes

none

16.6 Data sources

Data arise from reference works and literature.

16.7 Key and definition

Wording of the r-phrases under paragraph 3:

17. Appendix**17.1 Exposure scenario**

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