

Trade name: Cold spray
Safety data sheet in accordance with 91/155/EEC
 Date of printing : 24.01.2003

01. Identification

01.01 Product details	
01.01.01. Trade name	Cold spray
01.02. Identification of the manufacturer	
01.02.01. Address	ERKODENT Erich Kopp GmbH, Siemensstr. 3, D-72285 Pfalzgrafenweiler
01.02.02. Information provided by	Chemie
01.02.03. Telephone number	Tel.: (+49) (0) 7445 / 85 01 - 0, Fax: (+49) (0) 7445 / 20 92
01.02.04. Emergency telephone number :	

02. Composition/information on ingredients

02.01. Chemical characterization	Aerosol
02.02. Substance / product identification	Mint oil, Isopropylalcohol, Propan / Butan
02.03. Hazardous ingredients	CAS no.: 106-97-8, EINECS : 203-448-7 Butan 50–100% F+; R12 CAS no.: 74-98-6, EINECS : 200-827-9 Propan 25–50% F+; R12 CAS no.: 75-28-5, EINECS : 200-857-2 Isobutan 2,5–10% F+ ; R12
02.04. Additional information	-

03. Hazards possibilities

03.01. Hazard designation	F+ Extremely flammable
03.02. Particular information pertaining specific risk for human / environment	Extremely flammable

04. First aid measures

04.01. General Information	
04.02. First aid measures / inhalation.	Ensure supply of fresh air., In the event of symptoms take medical treatment.
04.03. First aid measures / skin contact.	In case of contact with skin wash off immediately with soap and water.
04.04. First aid measures / eye contact.	In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water.
04.05. First aid measures / ingestion.	Seek medical advice immediately.
04.06. Advice to doctor	-

05. Fire-fighting measures

05.01. Suitable extinguishing media	carbon dioxide., dry powder, water spray jet
05.02. Extinguishing media that must not be used for safety reasons	-
05.03. Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases.	-
05.04. Special protective equipment for firefighting	-
05.05. Additional informations (chapter 5)	-

06. Accidental release measures

06.01. personal precautions.	Ensure adequate ventilation., Keep away sources of ignition.
06.02. environmental precautions.	Do not allow to enter drains or waterways.
06.03. methods for cleaning up/taking up.	-
06.04. Additional informations (chapter 6).	-

07. Handling and storage

07.01. Handling	
07.01.01. Hints on safe handling.	-
07.01.02. Hints for protection against fire and explosion.	Keep away from sources of ignition - refrain from smoking., Take precautionary measures against electrostatic loading.,
07.02. Storage	
07.02.01. Requirements for storage rooms and vessels.	-
07.02.02. Hints on storage assembly.	-
07.02.03. Further information on storage conditions.	Keep container tightly closed., Protect from heat and direct sunlight.
07.02.04. Storage category	-
07.02.05. Storage stability	-
07.02.06. Recommended storage temperature	25 °C

08. Exposure controls/personal protection

08.01. Additional hints on technical system design.	See chapter 7; no measures exceeding the ones mentioned are necessary.
08.02. Ingredients with occupational exposure limits to be monitored	MAK (TRGS 900) Butan 2400 mg/m ³ , 1000 ml/m ³ Propan 1800 mg/m ³ , 1000 ml/m ³ Isobutan 2400 mg/m ³ , 1000 ml/m ³
08.03. Personal protective equipment Personal protective equipment Persönliche Schutzausrüstung	
08.03.01. Respiratory protection	If ventilation insufficient, use a respiratory protection apparatus.
08.03.02. Hand protection	-
08.03.03. Eye protection	tightly fitting safety glasses
08.03.04. Skin protection	-
08.03.05. General protective and hygiene measures	Wash hands before breaks and after work.

09. Physical and chemical properties

09.01. Appearance.	
09.01.01. Form	Aerosol
09.01.02. Colour	colourless
09.01.03. Odour	Product specific

09.02. Safety data	
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Changes in physical state			
Boiling point/ Boiling range	- 44	°C	
Flash point	- 97	°C	
Ignition temperature	365	°C	
self ignition			
explosion limits	1,5	Vol %	
Upper explosion limit	10,9.	Vol %	
Vapour pressure	8300	hPa	
Density	0,56	g/cm ³	
solubility	miscible	g/l	
Soluble in	n.a.	g/l	
pH-Value	n.a.		

Viscosity

	n.a.		
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09.03. Other information (chapter 9.)	-
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10. Stability and reactivity

10.01. Hazardous reactions	-
10.02. Hazardous decomposition products	None.
10.03. Thermal decomposition	No decomposition if used as prescribed.
10.04. Additional informations (chapter 10)	-

11. Toxicological information

11.01. Acute toxicity	
11.01.01. Acute oral toxicity	-
11.01.02. Acute dermal toxicity	-
11.01.03. Acute inhalational toxicity	-
11.02. Irritant/corrosive effects	
11.02.01. Irritant effect on skin	non-irritant
11.02.02. Irritant effect on eyes	irritant
11.03. Sensitization	non-sensitizing
11.04. Effects after repeated or prolonged exposition (subacute, subchronic, cronic)	-
11.08. Other information (chapter 11.)	-
11.09. Experiences made in practice.	-
11.10. General remarks.	-

12. Ecological information

12.01. Data on elimination (persistence and degradability) :	
12.01.01. Physico-chemical eliminability	-
12.01.02. Biodegradability	-
12.02. Behaviour in environment compartments.	-
12.03. Ecotoxic effect	-
12.03.01. Fish toxicity	-
12.03.02. Daphnia toxicity	-
12.03.03. Algae toxicity	-
12.03.04. Bacteria toxicity	-
12.04. Further ecological information	-

13. Disposal considerations

13.01. Disposal considerations	
13.01.01. Disposal / product	-
13.01.02. Disposal / contaminated packagings.	Not cleanable packings should be disposed of in agreement with the Regional Waste Disposal Authority.
13.02. Waste code no. / name of waste (for Germany only)	15 01 04

14. Transport information

14.01. Land transport ADR/RID	
14.01.01. Class	2
14.01.02. Number/letter	5 F Gase
14.01.03. Hazard number (Kemler-number)	23
14.01.04. UN number	1950
14.01.05. Technical name	1950 Pressurized gas packages (aerosol cans)
14.01.06. Remarks	-

14.02. Inland waterways transport ADN/ADNR	
14.02.01. Class	-
14.02.02. Number/letter	-
14.02.03. Category	-
14.02.04. Technical name	1950 Aerosol
14.02.05. Remarks	-

14.03. Marine transport IMDG/GGVSee	
14.03.01. Class	2.1
14.03.02. UN number	1950
14.03.03. page	2.1
14.03.04. EmS	2-13
14.03.05. MFAG	-
14.03.06. MARINE POLLUTANT	-
14.03.07. Correct technical name	Aerosol
14.03.08. Remarks	-

14.04. Air transport ICAO/IATA	
14.04.01. Class	2.1
14.04.02. UN number	1950
14.04.03. page	2.1
14.04.04. Correct technical name	Aerosol, Extremely flammable
14.04.05. Remarks	-

14.05. Other information (chapter 14.)	-
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15. Regulatory information

15.01. Labelling in accordance with GefStoffV/EC	
The product is classified and labelled in accordance with EC directives/German regulations on dangerous substances.	

15.01.02. Gefahrsymbole	F+	Extremely flammable
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R phrases	R 12	Extremely flammable
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S phrases	S 2	Keep out of the reach of children.
	S 3	Keep in a cool place.
	S 9	Keep container in a well-ventilated place.
	S 16	Keep away from sources of ignition --- No smoking.
	S 29	Do not empty into drains.
	S 46	If swallowed, seek medical advice immediately and show this container or label.
	S 51	Use only in well-ventilated areas.
	S 56	Dispose of this material and its container at hazardous or special waste collection point.

Special labelling for certain preparations.	Kennzeichnung als Aerosol nach § 6(3) GefStoffV, Vor Gebrauch gut schütteln. Container is under pressure. Protect from sun and temperatures above 50 °C. Do not open with force or incinerate even after use. Do not spray into flames or onto glowing objects. Do not spray against an open flame or glowing hot objects. Keep away from sources of ignition --- No smoking. Ohne ausreichende Lüftung Bildung explosionsfähiger Gemische möglich. Außer Reichweite von Kindern aufbewahren.
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15.02. Other regulations	
15.02.01. Restriction of occupation.	-
15.02.02. Decree for case of interference / remarks (for Germany only).	-

15.02.03. Classification according to VbF / remarks (for Germany only).	-
15.02.04. TA-Luft (Ger.)	Class: III 50-100%
15.02.05. Water Hazard Class (Ger.)	-
15.02.06. Other regulations, restrictions and prohibition regulations (for Germany only)	-

16. Other information (chapter 16.).

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(n.a. = Not applicable; n.b.= not determined)

This information is based on our present state of knowledge. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application.