

Productname : MINUS 50
Ref.Nr.: BDS000702_3_20111104
Creationdate : 04.11.11 Version : 1.0
Replaces: AB18391

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

MINUS 50
Aerosol

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

Cooling agent

1.3. Details of the supplier of the safety data sheet

CRC Industries Europe bvba
Touwslagerstraat 1
9240 Zele
Belgium
Tel.: +32(0)52/45.60.11
Fax.: +32(0)52/45.00.34
E-mail : hse@crcind.com

Subsidiaries		Tel	Fax
CRC Industries Finland Oy	Asemanrinne 13, 08500 Lohja	+358/(19)32.921	+358/(19)383.676
CRC Industries France	6, avenue du marais, B.P. 90028, 95102 Argenteuil Cedex	01.34.11.20.00	01.34.11.09.96
CRC Industries Deutschland GmbH	Südring 9, D-76473 Iffezheim	(07229) 303.0	(07229)30 32 66
CRC INDUSTRIES IBERIA S.L.U.	GREMIO DEL CUERO-PARC.96, POLIGONO INDUSTRI. DE HONTORIA, 40195 SEGOVIA	0034/921.427.546	0034/921.436.270
CRC Industries Sweden	Kryptongatan 14, 431 53 Mölndal	0046/31 706 84 80	0046/31 27 39 91

1.4. Emergency telephone number

CRC Industries Europe, Belgium: Tel.: +32(0)52/45.60.11 (office hours)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to 67/548/EEC or 1999/45/EC:**

Health: not classified
Physical: not classified
Environment: not classified



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2.2. Label elements

Safety-phrase(s) : S2: Keep out of the reach of children.
 S23: Do not breathe vapours/spray.
 S51: Use only in well-ventilated areas.

Special labelling provisions: Safety data sheet available on request.

Extra label elements according to Aerosol Dispenser Directive 75/324/EC: Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.
 7 % by mass of the contents are flammable.

2.3. Other hazards

In case of contact with liquid product frostbite symptoms may occur.
 Aerosols may explode if heated above 50°C

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

Hazardous ingredient	CAS-nr.	EC-nr	w/w %	symbol	R-phrases*	Notes
tetrafluoroethane	811-97-2	212-377-0	75-100	-	-	B
dimethyl ether	115-10-6	204-065-8	5-10	F+	12	A

Explanation notes

A : substance with Community workplace exposure limit

B : substance with national established workplace exposure limit

Hazardous ingredient	Registration number	CAS-nr.	EC-nr	w/w %	Hazard Class and Category	Hazard statement	Notes
dimethyl ether		115-10-6	204-065-8	5-10	Flam. Gas 1, Press. Gas	H220	A

Explanation notes

A : substance with Community workplace exposure limit

(* Explanation phrases : see chapter 16)

SECTION 4: First aid measures

4.1. Description of first aid measures

Contact with eyes : Seek immediate medical attention

Contact with skin : In case of contact with liquid, thaw frosted parts with water, remove clothing carefully and wash with soap & water
 Seek medical advice

Inhalation : Fresh air, keep warm and at rest.

Ingestion : Ingestion is unlikely to occur



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4.2. Most important symptoms and effects, both acute and delayed

Inhalation : Excessive inhalation of solvent vapours may give rise to nausea, headaches and dizziness
Ingestion : Ingestion is unlikely to occur
Skin contact : In case of contact with liquid product frostbite symptoms may occur.
Eye contact : In case of contact with liquid product frostbite symptoms may occur.

4.3. Indication of any immediate medical attention and special treatment needed

General Advice : In case of accident or if you feel unwell, seek medical advice (show the label where possible)
If symptoms persist always call a doctor

SECTION 5: Firefighting measures

5.1. Extinguishing media

water, foam, carbon dioxide or dry agent

5.2. Special hazards arising from the substance or mixture

Aerosols may explode if heated above 50°C
Forms hazardous decomposition products
CO,CO2
HF may be formed under condition of fire

5.3. Advice for firefighters

Keep container(s) exposed to fire cool, by spraying with water
In case of fire, do not breathe fumes

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Shut off all ignition sources
Ensure adequate ventilation
Wear suitable protective clothing and gloves.

6.2. Environmental precautions

Do not allow to enter public sewers and watercourses

6.3. Methods and material for containment and cleaning up

Allow product to evaporate



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6.4. Reference to other sections

For further information see section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep away from heat and sources of ignition
 Do not spray on a naked flame or incandescent material.
 Do not pierce or burn aerosols, even after use.
 Do not breathe aerosols or vapours.
 Ensure adequate ventilation
 Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
 Store in a well-ventilated place.
 Keep out of reach of children.

7.3. Specific end use(s)

Cooling agent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits :

Hazardous ingredient	CAS-nr.	method	
EU established exposure limits:			
dimethyl ether	115-10-6	TWA	1000 ppm
National established exposure limits, United Kingdom			
dimethyl ether	115-10-6	TWA	400 ppm
		STEL	500 ppm
tetrafluoroethane	811-97-2	TWA	1000 ppm

8.2. Exposure controls

Control procedures : Ensure adequate ventilation
 Keep away from heat and sources of ignition
Personal protection : Take precautions to avoid contact with skin and eyes when handling the product.



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	Ensure adequate ventilation
inhalation :	In case of insufficient ventilation, wear suitable respiratory equipment.
hands and skin :	Wear suitable protective gloves
eyes :	Wear safety goggles.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Apperance : physical state :	Liquified gas.
colour :	Colorless.
odour :	Odorless.
pH :	Not applicable.
Boiling point/range :	Not available.
Flash point :	None
Evaporation rate :	Not available.
Explosion limits : upper limit :	Not available.
lower limit :	Not available.
Vapour pressure :	Not available.
Relative density :	1.139 g/cm ³ (@ 20°C).
Solubility in water :	Partly soluble in water
Auto-ignition :	> 200 °C
Viscosity :	Not available.

9.2. Other information

VOC: 1139 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reactions known if used for its intended purpose

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose

10.4. Conditions to avoid

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

10.5. Incompatible materials



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Strong oxidising agent

10.6. Hazardous decomposition products

CO,CO2
HF may be formed under condition of fire

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation : Excessive inhalation of solvent vapours may give rise to nausea, headaches and dizziness
Ingestion : Ingestion is unlikely to occur
Skin contact : In case of contact with liquid product frostbite symptoms may occur.
Eye contact : In case of contact with liquid product frostbite symptoms may occur.

Toxicological data :

No information available

SECTION 12: Ecological information

12.1. Toxicity

not classified

Ecotoxicological data:

No information available

12.2. Persistence and degradability

No experimental data available

12.3. Bioaccumulative potential

No experimental data available

12.4. Mobility in soil

Insoluble in water

12.5. Results of PBT and vPvB assessment



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No information available

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product : This material and its container must be disposed of in a safe way. Do not discharge into drains or the environment, dispose to an authorised waste collection point.

Contaminated packaging : Disposal should be in accordance with local, state or national legislation

SECTION 14: Transport information

14.1. UN number

UN-number : 1950

14.2. UN proper shipping name

Proper shipping name: AEROSOLS, non flammable

14.3. Transport hazard class(es)

Class: 2.2
ADR/RID - Classification code: 5A

14.4. Packing group

Packing group: Not applicable.

14.5. Environmental hazards

ADR/RID - Environmentally hazardous: No
IMDG - Marine pollutant: No
IATA/ICAO - Environmentally hazardous: No

14.6. Special precautions for user

ADR/RID - Tunnelcode: (E)
IMDG - Ems: F-D,S-U
IATA/ICAO - PAX: 203
IATA/ICAO - CAO: 203

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code



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Not applicable.

SECTION 15: Regulatory information

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

The Safety Data Sheet is compiled according to the current European requirements.
Dir. 2008/47/EC amendment of the aerosol dispenser directive 75/324/EEC.
Regulation (EC) No 1907/2006 (REACH)

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

*Explanation risk-phrases: R12: Extremely flammable.

*Explanation hazard statements: H220 : Extremely flammable gas.

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation.

The information contained herewith is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It does not guarantee any specific properties.

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