

Productname : Minus 45  
 Ref.Nr.: BDS002505\_3\_20190927 (EN)

Creationdate : 27.09.19 Version : 1.0  
 Replaces:

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

### 1.1. Product identifier

Minus 45  
 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	Smedsgatan 3-5 LT4, PL62, 08101 LOJO	+358/(19)32.921	
CRC Industries France	6, avenue du marais, C.S. 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	Laxfiskevägen 16, 433 38 Partille	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 Regulation (EC) No 1272/2008

**Physical:** Aerosol, category 3  
 Pressurised container: May burst if heated.  
**Health:** Not classified  
**Environment:** Not classified





**Productname :** Minus 45  
**Ref.Nr.:** BDS002505\_3\_20190927 (EN)

**Creationdate :** 27.09.19  
**Version :** 1.0  
**Replaces:**

	carefully and wash with soap & water
	Seek medical advice
<b>Inhalation :</b>	Fresh air, keep warm and at rest.
<b>Ingestion :</b>	In case of accident or if you feel unwell, seek medical advice (show the label where possible)

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

<b>Inhalation :</b>	Excessive inhalation of solvent vapours may give rise to nausea, headaches and dizziness
<b>Ingestion :</b>	Not available.
<b>Skin contact :</b>	In case of contact with liquid product frostbite symptoms may occur.
<b>Eye contact :</b>	In case of contact with liquid product frostbite symptoms may occur.

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

<b>General Advice :</b>	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



Productname : Minus 45  
Ref.Nr.: BDS002505\_3\_20190927 (EN)

Creationdate : 27.09.19 Version : 1.0  
Replaces:

### 6.3. Methods and material for containment and cleaning up

Allow product to evaporate

### 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.  
For use on energized equipment keep ambient temperature below 28°C.

### 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 :

No information available

### 8.2. Exposure controls

<b>Control procedures :</b>	Ensure adequate ventilation Keep away from heat and sources of ignition
<b>Personal protection :</b>	Take precautions to avoid contact with skin and eyes when handling the product. Ensure adequate ventilation
<b>inhalation :</b>	In case of insufficient ventilation, wear suitable respiratory equipment.



**Productname :** Minus 45  
**Ref.Nr.:** BDS002505\_3\_20190927 (EN)

**Creationdate :** 27.09.19 Version : 1.0  
**Replaces:**

<b>hands and skin :</b>	Compressed air mask. For incidental contact with the product wear chemical-resistant gloves (standard EN 374). The use of disposable gloves is acceptable provided that they are changed immediately after a splash or spill. In all cases handle and use the product in accordance with good industrial hygiene practices.
<b>eyes :</b>	Wear safety eyewear according to EN 166.
<b>Environmental protection:</b>	Avoid release to the environment.
<b>Consumer exposure protection:</b>	Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

(for aerosols data for the product without propellant)

<b>Appearance : physical state :</b>	HFO1234ze propelled liquid
<b>colour :</b>	Colorless.
<b>odour :</b>	Odorless.
<b>pH :</b>	Not applicable.
<b>Boiling point/range :</b>	-19 °C
<b>Flash point :</b>	None
<b>Evaporation rate :</b>	Not applicable.
<b>Explosion limits : upper limit :</b>	No UEL was assigned at standard testing conditions(20°C). Exhibits flame limits at temperatures in excess of 28°C.
<b>lower limit :</b>	No LEL was assigned at standard testing conditions(20°C). Exhibits flame limits at temperatures in excess of 28°C.
<b>Vapour pressure :</b>	420 kPa (@ 20°C).
<b>Relative density :</b>	1.18 g/cm <sup>3</sup> (@ 20°C).
<b>Solubility in water :</b>	Partly soluble in water
<b>Auto-ignition :</b>	288-293 °C
<b>Viscosity :</b>	Not applicable.

### 9.2. Other information

## 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



**Productname :** Minus 45  
**Ref.Nr.:** BDS002505\_3\_20190927 (EN)  
**Creationdate :** 27.09.19 Version : 1.0  
**Replaces:**

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

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

<b>acute toxicity:</b>	based on available data the classification criteria are not met
<b>skin corrosion/irritation:</b>	based on available data the classification criteria are not met
<b>serious eye damage/irritation:</b>	based on available data the classification criteria are not met
<b>respiratory or skin sensitisation:</b>	based on available data the classification criteria are not met
<b>germ cell mutagenicity:</b>	based on available data the classification criteria are not met
<b>carcinogenicity:</b>	based on available data the classification criteria are not met
<b>toxicity for reproduction:</b>	based on available data the classification criteria are not met
<b>STOT-single exposure:</b>	based on available data the classification criteria are not met
<b>STOT repeated exposure:</b>	based on available data the classification criteria are not met
<b>aspiration hazard:</b>	based on available data the classification criteria are not met

#### Information on likely routes of exposure:

<b>Inhalation :</b>	Inhalation of gas may give rise to nausea, headaches and dizziness.
<b>Ingestion :</b>	Ingestion is unlikely to occur
<b>Skin contact :</b>	In case of contact with liquid product frostbite symptoms may occur.
<b>Eye contact :</b>	In case of contact with liquid product frostbite symptoms may occur.

#### Toxicological data :

No information available

### SECTION 12: Ecological information

#### 12.1. Toxicity



Productname : Minus 45  
Ref.Nr.: BDS002505\_3\_20190927 (EN)

Creationdate : 27.09.19 Version : 1.0  
Replaces:

**Ecotoxicological data:**

No information available

**12.2. Persistence and degradability**

Not readily biodegradable

**12.3. Bioaccumulative potential**

For all ingredients the octanol-water partition coefficient is below 4.

**12.4. Mobility in soil**

No information available

**12.5. Results of PBT and vPvB assessment**

No information available

**12.6. Other adverse effects**

No experimental data available

GWP (global warming potential): 7

(calculated in accordance with Annex IV of Regulation (EU) No 517/2014 on fluorinated greenhouse gases)

**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

**14.3. Transport hazard class(es)**

Productname : Minus 45  
Ref.Nr.: BDS002505\_3\_20190927 (EN)

Creationdate : 27.09.19 Version : 1.0  
Replaces:

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 MARPOL and the IBC Code

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.  
Regulation (EC) No 1907/2006 (REACH)  
Regulation (EC) No 1272/2008 (CLP)  
Dir. 2013/10/EU, 2008/47/EC amendment of the aerosol dispenser directive 75/324/EEC.

#### 15.2. Chemical safety assessment

No information available

### SECTION 16: Other information

\*Explanation hazard statements: H280 : Contains gas under pressure; may explode if heated.

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.

Apart from any fair dealing for purposes of study, research and review of health, safety and environmental risks, no part of these documents may be reproduced by any process without written permission from CRC.





---

**Productname :** Minus 45  
**Ref.Nr.:** BDS002505\_3\_20190927 (EN)

**Creationdate :** 27.09.19 Version : 1.0  
**Replaces:**

---

