



## SAFETY DATA SHEET FRC FLUX REMOVER C AEROSOL

According to Regulation (EC) No 1907/2006

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	FRC FLUX REMOVER C AEROSOL		
PRODUCT NO.	MCC-FRC, MCC-FRC101, MCC-FRC105		
SUPPLIER	MICROCARE EUROPE, BVBA Havendoklaan 19 1804 Cargovil - Vilvoorde Belgium +32 251 95 05	MANUFACTURER	MICROCARE CORPORATION 595 John Downey Drive New Britain, CT 06019 United States of America CAGE: OATV9 +1 860-827-0626 +1 860-827-8105 techsupport@microcare.com

### 2 HAZARDS IDENTIFICATION

Harmful by inhalation, in contact with skin and if swallowed. Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**CLASSIFICATION (1999/45)** Xn;R20/21/22, R68/20/21/22. R52/53.

#### ENVIRONMENT

The product contains a substance which is harmful to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

#### PHYSICAL AND CHEMICAL HAZARDS

Vapours are heavier than air and may travel along the floor and in the bottom of containers. Considering the limited amount applied during use and the size of the container, the risk of adverse effects is considered small. Gas or vapour displaces oxygen available for breathing (asphyxiant).

#### HUMAN HEALTH

Prolonged skin contact may cause redness, irritation and dry skin. Mild dermatitis, allergic skin rash.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification (67/548)
1,1,1,2,3,4,4,5,5-decafluoropentane	420-640-8	138495-42-8	10-30%	R52/53.
HFC-134a Tetrafluoroethane	212-377-0	811-97-2	10-30%	-
METHANOL	200-659-6	67-56-1	1-5%	F;R11 T;R23/24/25,R39/23/24/25
PENTAFLUOROBUTANE		406-58-6	10-30%	F;R11.
trans-DICHLOROETHYLENE	205-860-2	156-60-5	10-30%	F;R11 Xn;R20 R52/53

The Full Text for all R-Phrases are Displayed in Section 16

#### COMPOSITION COMMENTS

The Data Shown is in accordance with the latest EC Directives.

### 4 FIRST-AID MEASURES

#### GENERAL INFORMATION

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Place unconscious person on the side in the recovery position and ensure breathing can take place. Perform artificial respiration if breathing has stopped.

#### INHALATION

Move into fresh air and keep at rest. If respiratory problems, artificial respiration/oxygen.

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### INGESTION

Do not induce vomiting. Immediately rinse mouth and drink plenty of water (200-300 ml). Consult a physician for specific advice.

### SKIN CONTACT

Remove contaminated clothes and rinse skin thoroughly with water.

### EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing. Consult a physician for specific advice.

## 5 FIRE-FIGHTING MEASURES

### EXTINGUISHING MEDIA

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

### SPECIAL FIRE FIGHTING PROCEDURES

Move container from fire area if it can be done without risk.

### UNUSUAL FIRE & EXPLOSION HAZARDS

Aerosol containers can explode when heated, due to excessive pressure build-up.

### SPECIFIC HAZARDS

Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed.

### PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

## 6 ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Warn everybody of potential hazards and evacuate if necessary. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

### ENVIRONMENTAL PRECAUTIONS

Contain spillages with sand, earth or any suitable adsorbent material. Avoid release to the environment.

### SPILL CLEAN UP METHODS

Wear necessary protective equipment. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

## 7 HANDLING AND STORAGE

### USAGE PRECAUTIONS

Provide good ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes. Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed. Keep out of the reach of children.

### STORAGE PRECAUTIONS

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
METHANOL	WEL	200 ppm(Sk)	266 mg/m3(Sk)	250 ppm(Sk)	333 mg/m3(Sk)	
trans-DICHLOROETHYLENE	ACGIH			200 ppm		

WEL = Workplace Exposure Limit.

ACGIH = American Conference of Governmental Industrial Hygienists.

### PROTECTIVE EQUIPMENT



### ENGINEERING MEASURES

No specific ventilation requirements noted, except this product must not be used in a confined space without good ventilation.

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### RESPIRATORY EQUIPMENT

Vapours are heavier than air and may travel along the floor and in the bottom of containers. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used. Self-contained breathing apparatus with full facepiece.

### HAND PROTECTION

For prolonged or repeated skin contact use suitable protective gloves.

### EYE PROTECTION

Wear approved, tight fitting safety glasses where splashing is probable.

### OTHER PROTECTION

Wear suitable protective clothing as protection against splashing or contamination.

### HYGIENE MEASURES

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. When using do not eat, drink or smoke.

### SKIN PROTECTION

Wear apron or protective clothing in case of splashes.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear liquid		
COLOUR	Colourless		
ODOUR	Slight odour Ether		
PHYSICAL DATA COMMENTS	Aerosol		
VOLATILITY DESCRIPTION	Volatile.		
SOLUBILITY	Slightly soluble in water.		
Flammability	This product is not flammable.		
BOILING POINT (°C)	37 C / 99 F	VAPOUR DENSITY (air=1)	4.0
VAPOUR PRESSURE	65 kPa 20 C / 77 F	VOLATILE BY VOL. (%)	100
SATURATION CONCENTRATION (ppm)	600	FLAMMABILITY LIMIT - LOWER(%)	7.5
FLAMMABILITY LIMIT - UPPER(%)	9.0		

## 10 STABILITY AND REACTIVITY

### STABILITY

Stable under normal temperature conditions and recommended use.

### CONDITIONS TO AVOID

Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed.

### HAZARDOUS POLYMERISATION

Will not polymerise.

### MATERIALS TO AVOID

Alkali metals. Alkali earth metals. Powdered metal.

### HAZARDOUS DECOMPOSITION PRODUCTS

When heated, toxic and corrosive vapours/gases may be formed. Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

## 11 TOXICOLOGICAL INFORMATION

### INHALATION

Vapours may irritate the respiratory system and cause coughing, asthmatic breathing and breathlessness.

### INGESTION

May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

### SKIN CONTACT

Acts as a defatting agent on skin. May cause cracking of skin, and eczema.

### EYE CONTACT

May cause temporary eye irritation.

### OTHER HEALTH EFFECTS

This substance has no evidence of carcinogenic properties.

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### MEDICAL SYMPTOMS

High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

<b>Name</b>	METHANOL
<b>Toxic Dose 1 - LD 50</b>	13000 mg/kg (oral rat)
<b>Name</b>	trans-DICHLOROETHYLENE
<b>Toxic Dose 1 - LD 50</b>	1235 mg/kg (oral rat)
<b>Toxic Dose 2 - LD 50</b>	>5000 mg/kg (oral-rbt)
<b>Toxic Conc. - LC 50</b>	24100 ppm/4h (inh-rat)

#### OTHER HEALTH EFFECTS

This substance has no evidence of carcinogenic properties.

<b>Name</b>	HFC-134a Tetrafluoroethane
<b>Toxic Dose 1 - LD 50</b>	>2085 mg/kg (oral rat)

#### OTHER HEALTH EFFECTS

This substance has no evidence of carcinogenic properties.

<b>Name</b>	1,1,1,2,3,4,4,5,5,5-decafluoropentane
<b>Toxic Dose 1 - LD 50</b>	>5,000 mg/kg (oral rat)
<b>Toxic Conc. - LC 50</b>	11,100 ppm/4h (inh-rat)
<b>Name</b>	PENTAFLUOROBUTANE
<b>Toxic Dose 1 - LD 50</b>	>2000 mg/kg (oral rat)
<b>Toxic Conc. - LC 50</b>	25000 ppm/4h (inh-rat)

#### OTHER HEALTH EFFECTS

IARC Not Listed. OSHA Not Regulated.

## 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

There are no data on the ecotoxicity of this product.

### MOBILITY

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

### BIOACCUMULATION

No data available on bioaccumulation.

### DEGRADABILITY

There are no data on the degradability of this product.

## 13 DISPOSAL CONSIDERATIONS

### GENERAL INFORMATION

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

### DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements.

## 14 TRANSPORT INFORMATION



<b>PROPER SHIPPING NAME</b>	AEROSOLS		
<b>PROPER SHIPPING NAME</b>	LIMITED QUANTITY: 1 L INNER PACKING, 30 L PACKING UNIT		
<b>UN NO. ROAD</b>	UN1950	<b>ADR CLASS NO.</b>	2.2
<b>HAZCHEM CODE</b>	N/A	<b>RID CLASS NO.</b>	2.2
<b>UN NO. SEA</b>	1950	<b>IMDG CLASS</b>	2.2

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IMDG PACK GR.	N/A	UN NO. AIR	1950
AIR CLASS	2.2	AIR SUB CLASS	N/A
AIR PACK GR.	N/A		

### 15 REGULATORY INFORMATION

#### LABELLING



Harmful

#### CONTAINS

1,1,1,2,3,4,4,5,5,5-decafluoropentane  
HFC-134a Tetrafluoroethane  
METHANOL  
PENTAFLUOROBUTANE  
trans-DICHLOROETHYLENE

#### RISK PHRASES

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

#### SAFETY PHRASES

S23 Do not breathe vapour/spray.  
S36/37 Wear suitable protective clothing and gloves.  
S38 In case of insufficient ventilation, wear suitable respiratory equipment.  
S60 This material and its container must be disposed of as hazardous waste.

#### EU DIRECTIVES

System of specific information relating to Dangerous Preparations. 2001/58/EC.

#### APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply.

#### GUIDANCE NOTES

Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37.

#### NATIONAL REGULATIONS

The Aerosol Dispensers (EEC Requirements)(Amendment) Regulations 1996 (S.I 1996 No. 2421).

### 16 OTHER INFORMATION

#### REVISION COMMENTS

NOTE: Lines within the margin indicate significant changes from the previous revision.

REVISION DATE 01/02/2011

REV. NO./REPL. SDS 4  
GENERATED

#### SAFETY DATA SHEET STATUS

Approved.

DATE January 31, 2011

#### RISK PHRASES IN FULL

R20 Harmful by inhalation.  
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R11 Highly flammable.  
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.  
R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

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### DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.