



## MATERIAL SAFETY DATA SHEET

### FRZA - ANTI-STAT MICRO FREEZE CIRCUIT COOLER

#### 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME** FRZA - ANTI-STAT MICRO FREEZE CIRCUIT COOLER  
**PRODUCT NO.** MCC-FRZA  
**SUPPLIER** 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  
**EMERGENCY TELEPHONE** CHEMTREC (800) 424-9300  
**IDENTIFICATION No.** UN1950

#### 2 HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

Colorless liquid Slight odor Ether This product is not flammable. Liquid may irritate the skin. Spray and vapor in the eyes may cause irritation and smarting. No specific ventilation requirements noted, except this product must not be used in a confined space without good ventilation. Keep out of reach of children.

##### 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

Vapors 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 vapor displaces oxygen available for breathing (asphyxiant).

##### HUMAN HEALTH

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

##### POTENTIAL HEALTH EFFECTS

##### INHALATION

Vapors 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.

##### MEDICAL SYMPTOMS

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

##### CARCINOGENICITY

This substance has no evidence of carcinogenic properties.

#### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Weight
HFC-134a Tetrafluoroethane	212-377-0	811-97-2	60-100%
PROPAN-2-OL	200-661-7	67-63-0	1-5%

## FRZA - ANTI-STAT MICRO FREEZE CIRCUIT COOLER

### 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. Keep out of reach of children.

#### INHALATION

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

#### 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 burst violently when heated, due to excess 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.

FLAMMABILITY LIMIT - N A

LOWER(%)

FLAMMABILITY LIMIT - UPPER(%) N A

### 6 ACCIDENTAL RELEASE MEASURES

#### PERSONAL PRECAUTIONS

Warn everybody of potential hazards and evacuate if necessary. Ventilate well, avoid breathing vapors. 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

#### HANDLING

Provide good ventilation. Avoid inhalation of vapors/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 reach of children.

#### STORAGE

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

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

#### PROTECTIVE EQUIPMENT



## FRZA - ANTI-STAT MICRO FREEZE CIRCUIT COOLER

### ENGINEERING MEASURES

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

### RESPIRATORY EQUIPMENT

Vapors 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	Liquid Gas		
COLOR	Colorless		
ODOR	Slight odor of alcohol		
PHYSICAL DATA COMMENTS	Aerosol		
VOLATILITY DESCRIPTION	Volatile.		
SOLUBILITY	Slightly soluble in water.		
UDF Phrase 1	This product is not flammable.		
This product is not flammable.			
BOILING POINT (°C)	-26.5 C / -15.7 F	VAPOR DENSITY (air=1)	3.6 @ 25 C / 77 F
VAPOR PRESSURE	96 PSIA 25 C / 77 F	VOLATILE BY VOL. (%)	100

## 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 polymerize.

### MATERIALS TO AVOID

Alkali metals. Alkali earth metals. Powdered metal.

### HAZARDOUS DECOMPOSITION PRODUCTS

Fire or high temperatures may form toxic and corrosive vapors. Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

## 11 TOXICOLOGICAL INFORMATION

Name	PROPAN-2-OL
Toxic Dose 1 - LD 50	5045 mg/kg (oral rat)
Toxic Dose 2 - LD 50	3600 mg/kg (oral-mouse)
Toxic Conc. - LC 50	16,000 ppm/1h (inh-rat)
Name	HFC-134a Tetrafluoroethane
Toxic Dose 1 - LD 50	>2085 mg/kg (oral rat)

### CARCINOGENICITY

This substance has no evidence of carcinogenic properties.

## 12 ECOLOGICAL INFORMATION

Name	PROPAN-2-OL
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LC 50, 96 hrs, Fish mg/l	9,640
EC 50, 48 hrs, Daphnia, mg/l	5102
IC 50, 72 hrs, Algae, mg/l	>2,000
Name	HFC-134a Tetrafluoroethane
LC 50, 96 hrs, Fish mg/l	450
EC 50, 48 hrs, Daphnia, mg/l	980

### 13 DISPOSAL CONSIDERATIONS

**WASTE MANAGEMENT**

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>DOT PROPER SHIPPING NAME</b>	AEROSOLS		
<b>DOT PROPER SHIPPING NAME</b>	CONSUMER COMMODITY ORM-D		
<b>DOT PROPER SHIPPING NAME</b>	AEROSOLS		
<b>IDENTIFICATION No.</b>	UN1950	<b>CEFIC TEC(R) NO.</b>	20G53
<b>DOT HAZARD CLASS</b>	2.2	<b>DOT PACKING GROUP</b>	N/A
<b>MARKINGS</b>	ORM-D	<b>UN NO. SEA</b>	1950
<b>IMDG CLASS</b>	2.2	<b>IMDG PACK GR.</b>	N/A
<b>MFAG</b>	See Subsection 4.2 of MFAG.	<b>UN NO. AIR</b>	1950
<b>AIR CLASS</b>	2.2	<b>AIR SUB CLASS</b>	N/A
<b>AIR PACK GR.</b>	N/A	<b>DOT PACKING GROUP</b>	N/A

### 15 REGULATORY INFORMATION

**INVENTORIES**

COMPONENT	CAN	US	EU	AUS	JAP	KOR	CHN	PHLP
PROPAN-2-OL	DSL	Yes						
HFC-134a Tetrafluoroethane	DSL	Yes						

COMPONENT	TSCA 12(b) Export Notification
HFC-134a Tetrafluoroethane	No

**SARA (311/312) HAZARD CATEGORIES**

Acute

**REGULATORY STATUS (US)**

TSCA: The ingredients of this product are on the TSCA Inventory.

**REGULATORY REFERENCES**

NFPA30 Flammable and Combustible Liquids Code. 29 CFR 1910.1010 Federal Regulations (OSHA Standard).

## WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM -WHMIS

LABEL(S) FOR SUPPLY

### FRZA - ANTI-STAT MICRO FREEZE CIRCUIT COOLER



Compressed Gas.



Materials Causing  
Other Toxic  
Effects.

#### CONTROLLED PRODUCT CLASSIFICATION

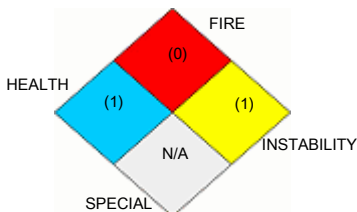
Canadian WHMIS Classification A D2 WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (CPR SECTION (33)) This product has been classified according to the hazard criteria of the Controlled Product Regulations, and the MSDS contains all required information.

#### 16 OTHER INFORMATION

##### HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

HEALTH	1
FLAMMABILITY	0
PHYSICAL	1
PERSONAL PROTECTION	supervisor fc

##### NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



#### REVISION COMMENTS

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

REVISION DATE 13/10/2009

VERSION No. 1

#### SAFETY DATA SHEET STATUS

Approved.

DATE October 12, 2009

#### DISCLAIMER

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