



## SAFETY DATA SHEET

### FRZA - ANTI-STATIC CIRCUIT CHILLER, AEROSOL

According to WHMIS 2015, in compliance with the Hazardous Product Act (HPA, as amended) and the requirements of the Hazardous Product Regulations (HPR)

#### 1. Identification

##### Product identifier

**Product name** FRZA - ANTI-STATIC CIRCUIT CHILLER, AEROSOL

**Product number** MCC-FRZA

**Synonyms; Common Names** "FRZA - Anti-Stat Micro Freeze"

##### Recommended use of the chemical and restrictions on use

**Uses advised against** No specific uses advised against are identified.

##### Details of the supplier of the safety data sheet

**Supplier** MICROCARE LLC

**Manufacturer** MICROCARE LLC  
595 John Downey Drive  
New Britain, CT 06051  
United States of America  
CAGE: OATV9  
Tel: +1 800-638-0125, +1 860-827-0626  
techsupport@microcare.com

##### Emergency telephone number

**Emergency telephone** INFOTRAC 1-800-535-5053 (CANADA and U.S.A.)  
1-352-323-3500 (from anywhere in the world)

#### 2. Hazard identification

##### Classification of the substance or mixture

**WHMIS Regulatory Status** This product has been classified according to the hazard criteria of the Hazardous Product Regulations and the SDS contains all required information.

**Physical hazards** Not Classified

**Health hazards** Not Classified

**Environmental hazards** Not Classified

**Human health** Contact with liquefied gas might cause frostbites, in some cases with tissue damage. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Mild dermatitis, allergic skin rash.

**Physicochemical** H229 Pressurised container: may burst if heated Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Gas or vapour displaces oxygen available for breathing (asphyxiant). Not considered to be a significant hazard due to the small quantities used.

##### Label elements

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<b>Hazard statements</b>	H280 Contains gas under pressure; may explode if heated.
<b>Precautionary statements</b>	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P501 Dispose of contents/ container in accordance with local regulations.
<b>Supplemental label information</b>	Safety data sheet available on request. For use in industrial installations only.

### Other hazards

This product does not contain any substances classified as PBT or vPvB.

### 3. Composition/information on ingredients

#### Mixtures

<b>HFC-134a Tetrafluoroethane</b>	<b>60-100%</b>
CAS number: 811-97-2	
<b>Classification</b> Press. Gas, Liquefied - H280 Simple Asphyxiants - Category 1	
<b>PROPAN-2-OL</b>	<b>1-5% Trade secret</b>
CAS number: 67-63-0	
<b>Classification</b> Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336	

The full text for all hazard statements is displayed in Section 16.

**Composition comments** Not applicable.

### Composition

### 4. First-aid measures

#### Description of first aid measures

<b>General information</b>	If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.
<b>Skin contact</b>	Rinse with water.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue.

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

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Spray/mists may cause respiratory tract irritation.
<b>Ingestion</b>	Due to the physical nature of this product, it is unlikely that ingestion will occur.
<b>Skin contact</b>	Repeated exposure may cause skin dryness or cracking.
<b>Eye contact</b>	May be slightly irritating to eyes. May cause discomfort.

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

<b>Notes for the doctor</b>	Treat symptomatically.
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### **5. Fire-fighting measures**

#### Extinguishing media

<b>Suitable extinguishing media</b>	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

#### Specific hazards arising from the hazardous product

<b>Specific hazards</b>	Containers can burst violently or explode when heated, due to excessive pressure build-up. Bursting aerosol containers may be propelled from a fire at high speed. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant.
<b>Hazardous combustion products</b>	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.
<b>Advice for firefighters</b>	
<b>Protective actions during firefighting</b>	Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing that provides a basic level of protection during chemical incidents is defined by the Canada Occupational Health and Safety Regulations, by provincial guidelines on occupational health and safety or by NFPA standards if applicable.

### **6. Accidental release measures**

#### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Evacuate area. Risk of explosion.
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#### Environmental precautions

<b>Environmental precautions</b>	Avoid discharge into drains or watercourses or onto the ground.
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#### Methods and material for containment and cleaning up

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**Methods for cleaning up** Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Under normal conditions of handling and storage, spillages from aerosol containers are unlikely. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. Small Spillages: Wipe up with an absorbent cloth and dispose of waste safely. Large Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

### Reference to other sections

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

## 7. Handling and storage

### Precautions for safe handling

**Usage precautions** Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Avoid exposing aerosol containers to high temperatures or direct sunlight. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin. Avoid contact with eyes. Avoid inhalation of vapours and spray/mists.

**Advice on general occupational hygiene** Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

### Conditions for safe storage, including any incompatibilities

**Storage precautions** Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Protect from sunlight. Do not store near heat sources or expose to high temperatures. Do not expose to temperatures exceeding 50°C/122°F.

**Storage class** Chemical storage.

### Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.

## 8. Exposure controls/Personal protection

### Control parameters

### Occupational exposure limits

#### HFC-134a Tetrafluoroethane

Long-term exposure limit (8-hour TWA): OES 4240 mg/m<sup>3</sup>

#### PROPAN-2-OL

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 492 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): ACGIH 400 ppm 984 mg/m<sup>3</sup>

A4

ACGIH = American Conference of Governmental Industrial Hygienists.  
A4 = Not Classifiable as a Human Carcinogen.

### Exposure controls

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### Protective equipment



### Appropriate engineering controls

Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

### Eye/face protection

Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

### Hand protection

No specific hand protection recommended.

### Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

### Hygiene measures

Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

### Respiratory protection

Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work. Full face mask respirators with replaceable filter cartridges should comply with the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work. Half mask and quarter mask respirators with replaceable filter cartridges should comply with the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work.

### Environmental exposure controls

Keep container tightly sealed when not in use.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance	Liquid. Gas Aerosol.
Colour	Colourless.
Odour	Slight. Ether.
Odour threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	-26°C/-16°F
Flash point	No information available.
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: n/a Upper flammable/explosive limit: n/a
Other flammability	The product is not flammable.
Vapour pressure	96 PSIA @ 20°C

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<b>Vapour density</b>	3.6 @ 25 C / 77 F
<b>Relative density</b>	No information available.
<b>Bulk density</b>	No information available.
<b>Solubility(ies)</b>	Slightly soluble in water.
<b>Partition coefficient</b>	No information available.
<b>Auto-ignition temperature</b>	No information available.
<b>Decomposition Temperature</b>	No information available.
<b>Viscosity</b>	No information available.
<b>Explosive properties</b>	No information available.
<b>Comments</b>	Aerosol
<b>Global Warming Potential (GWP)</b>	
<b>Surface tension</b>	
<b>Refractive index</b>	No information available.
<b>Particle size</b>	No information available.
<b>Molecular weight</b>	No information available.
<b>Volatility</b>	100%
<b>Saturation concentration</b>	No information available.
<b>Critical temperature</b>	No information available.
<b>Volatile organic compound</b>	This product contains a maximum VOC content of 12 g/l.
<b>Heat of vaporization (at boiling point), cal/g (Btu/lb)</b>	

**10. Stability and reactivity**

<b>Reactivity</b>	See the other subsections of this section for further details.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
<b>Possibility of hazardous reactions</b>	No potentially hazardous reactions known.
<b>Conditions to avoid</b>	Avoid exposing aerosol containers to high temperatures or direct sunlight. Pressurized container: may burst if heated
<b>Materials to avoid</b>	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
<b>Hazardous decomposition products</b>	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

**11. Toxicological information****Information on toxicological effects**

## FRZA - ANTI-STATIC CIRCUIT CHILLER, AEROSOL

### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

### Skin corrosion/irritation

**Animal data** Based on available data the classification criteria are not met.

### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

### Respiratory sensitization

**Respiratory sensitization** Based on available data the classification criteria are not met.

### Skin sensitization

**Skin sensitization** Based on available data the classification criteria are not met.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

### IARC carcinogenicity

Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable as to its carcinogenicity to humans.

### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development** Based on available data the classification criteria are not met.

### Specific target organ toxicity - single exposure

**STOT - single exposure** Not classified as a specific target organ toxicant after a single exposure.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

### Aspiration hazard

**Aspiration hazard** Based on available data the classification criteria are not met.

### General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

**Inhalation** Spray/mists may cause respiratory tract irritation.

**Ingestion** Due to the physical nature of this product, it is unlikely that ingestion will occur.

**Skin contact** Repeated exposure may cause skin dryness or cracking.

**Eye contact** May be slightly irritating to eyes. May cause discomfort.

**Route of exposure** Ingestion Inhalation Skin and/or eye contact

**Target organs** No specific target organs known.

### Toxicological information on ingredients

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### HFC-134a Tetrafluoroethane

<b>Other health effects</b>	There is no evidence that the product can cause cancer.
<b><u>Acute toxicity - inhalation</u></b>	
<b>Acute toxicity inhalation (LC<sub>50</sub> gases ppmV)</b>	567,000.0
<b>Species</b>	Rat
<b>ATE inhalation (gases ppmV)</b>	567,000.0
<b>Inhalation</b>	Vapours irritate the respiratory system. May cause coughing and difficulties in breathing.
<b>Ingestion</b>	May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.
<b>Skin contact</b>	May cause allergic contact eczema. Contact with liquid form may cause frostbite.
<b>Eye contact</b>	May cause temporary eye irritation.

### PROPAN-2-OL

<b><u>Carcinogenicity</u></b>	
<b>IARC carcinogenicity</b>	IARC Group 3 Not classifiable as to its carcinogenicity to humans.
<b>NTP carcinogenicity</b>	Not listed.

## 12. Ecological information

<b>Ecotoxicity</b>	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.
<b>Toxicity</b>	Based on available data the classification criteria are not met.

### Ecological information on ingredients

#### HFC-134a Tetrafluoroethane

<b><u>Acute aquatic toxicity</u></b>	
<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 450 mg/l, Fish
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: 980 mg/l, Daphnia magna

#### PROPAN-2-OL

<b><u>Acute aquatic toxicity</u></b>	
<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 9,640 mg/l, Fish
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: 5102 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	IC <sub>50</sub> , 72 hours: >2,000 mg/l, Algae

### Persistence and degradability



## FRZA - ANTI-STATIC CIRCUIT CHILLER, AEROSOL

**Persistence and degradability** The degradability of the product is not known.

### Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** No information available.

### Ecological information on ingredients

#### HFC-134a Tetrafluoroethane

**Partition coefficient** Pow: 1.06

#### PROPAN-2-OL

**Partition coefficient** : 0.05

### Mobility in soil

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

### Other adverse effects

**Other adverse effects** None known.

## 13. Disposal considerations

### Waste treatment methods

**General information** The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods** Do not empty into drains. Empty containers must not be punctured or incinerated because of the risk of an explosion. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents.

## 14. Transport information

### UN proper shipping name

**Proper shipping name (TDG)** LIMITED QUANTITY

**Proper shipping name (IMDG)** UN1950 AEROSOLS, NON-FLAMMABLE, 2.2, LIMITED QUANTITY

**Proper shipping name (ICAO)** UN1950 AEROSOLS, NON-FLAMMABLE, 2.2, LIMITED QUANTITY

**Proper shipping name (DOT)** LIMITED QUANTITY

### Packing group

**Packing group (International)** Not applicable.

### Special precautions for user

No information required.

## 15. Regulatory information

## FRZA - ANTI-STATIC CIRCUIT CHILLER, AEROSOL

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

### Inventories

#### Canada – DSL/NDSL

DSL

#### US - TSCA

Yes

#### US – TSCA 12(b) Export Notification

Not listed.

#### Australia - AICS

Not listed.

#### Korea - KECI

Not listed.

#### Phillippines – PICCS

Not listed.

#### Taiwan - TCSI

Not listed.

#### New Zealand - NZIOC

Not listed.

### 16. Other information

<b>Classification abbreviations and acronyms</b>	Aerosol = Aerosol
<b>Training advice</b>	Only trained personnel should use this material.
<b>Revision date</b>	2021-06-21
<b>Revision</b>	54
<b>Supersedes date</b>	2021-02-04
<b>SDS number</b>	AEROSOL - FRZA
<b>Hazard statements in full</b>	H225 Highly flammable liquid and vapour. H280 Contains gas under pressure; may explode if heated. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. May displace oxygen and cause rapid suffocation.

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.