

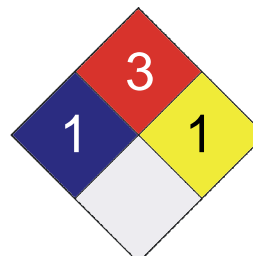
# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name** IsoClean™ Defluxer; MCC-BAC  
**CAS #** Mixture  
**Product Use** Cleaner  
**Manufacturer** Micro Care Corporation  
595 John Downey Drive  
New Britain, CT 06051 US  
Phone: 1-860-827-0626  
Emergency Phone: 1-860-827-0626

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 1
Flammability	3
Physical Hazard	1
Personal Protection	B



## 2. Hazards Identification

**Emergency Overview** DANGER  
Flammable aerosol.  
Contents under pressure. Containers may explode when heated.  
EYE AND SKIN IRRITANT.

**Potential short term health effects**

**Routes of exposure** Eye, Skin contact, Inhalation.

**Eyes** May cause irritation.

**Skin** May cause irritation.

**Inhalation** Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

**Ingestion** Not a normal route of exposure. May cause stomach distress, nausea or vomiting.

**Target organs** Eyes. Respiratory system. Skin.

**Chronic effects** Prolonged or repeated exposure can cause drying, defatting and dermatitis.

**Signs and symptoms** Symptoms may include redness, oedema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

## 3. Composition/Information on Ingredients

Ingredient(s)	CAS #	Percent
Isopropanol	67-63-0	60 - 100
Ethane, 1,1,1,2-tetrafluoro-	811-97-2	7 - 13

## 4. First Aid Measures

**First aid procedures**

**Eye contact** Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.

**Skin contact** Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.

**Inhalation** If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.

**Ingestion** Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

**Notes to physician** Symptoms may be delayed.

**General advice**

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## 5. Fire-fighting Measures

<b>Flammable properties</b>	Flammable by WHMIS criteria. Containers may explode when heated.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Carbon dioxide. Alcohol foam. Dry chemical.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame. Cool containers with flooding quantities of water until well after fire is out.
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

## 6. Accidental Release Measures

<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
<b>Methods for containment</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Before attempting clean up, refer to hazard data given above. Remove sources of ignition. Although the chance of a significant spill or leak is unlikely in aerosol containers, in the event of such an occurrence, absorb spilled material with a non-flammable absorbent such as sand or vermiculite.

## 7. Handling and Storage

<b>Handling</b>	Use good industrial hygiene practices in handling this material.
<b>Storage</b>	Keep out of reach of children. Do not store at temperatures above 49°C. Keep away from heat, open flames or other sources of ignition.

## 8. Exposure Controls / Personal Protection

<b>Exposure limits</b>	
<b>Ingredient(s)</b>	<b>Exposure limits</b>
Ethane, 1,1,1,2-tetrafluoro-	<b>ACGIH-TLV</b> TWA: 1000 ppm
Isopropanol	<b>ACGIH-TLV</b> TWA: 200 ppm STEL: 400 ppm
<b>Engineering controls</b>	General ventilation normally adequate.
<b>Personal protective equipment</b>	
<b>Eye/Face protection</b>	Safety glasses
<b>Hand protection</b>	Rubber gloves. Confirm with a reputable supplier first.
<b>Skin and body protection</b>	As required by employer code.
<b>Respiratory protection</b>	Not normally required if good ventilation is maintained and exposure guidelines are not exceeded. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands and face before breaks and immediately after handling the product.

## 9. Physical & Chemical Properties

Appearance	Clear.
Colour	Colourless
Form	Aerosol.
Odour	Alcohol.
Odour threshold	Not available
Physical state	Gas
pH	Not available
Freezing point	Not available
Boiling point	77.6 °C (171.68 °F)
Flash point	12 °C (53.60 °F) (liquid) TCC
Evaporation Rate	Not available
Flammability limits in air, lower, % by volume	2
Flammability Limits in Air, Upper, % by Volume	12.7
Vapour pressure	274 kPa (Can @ 21.1°C)
Vapour density	1.82 (Air = 1)
Specific gravity	0.79 (H2O = 1)
Octanol/water coefficient	Not available
Solubility (H2O)	Complete
Auto-ignition temperature	Not available
Viscosity	< 1 cPs (liquid)
Percent volatile	100 %

## 10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Aerosol containers are unstable at temperatures above 49°C.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.

## 11. Toxicological Information

### Component analysis - LC50

Ingredient(s)	LC50
Ethane, 1,1,1,2-tetrafluoro-	1500 mg/m <sup>3</sup> rat
Isopropanol	16970 ppm rat

### Component analysis - Oral LD50

Ingredient(s)	LD50
Ethane, 1,1,1,2-tetrafluoro-	Not available
Isopropanol	4396 mg/kg rat

### Effects of acute exposure

Eye	May cause irritation.
Skin	May cause irritation.
Inhalation	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
Ingestion	Not a normal route of exposure. May cause stomach distress, nausea or vomiting.
Sensitisation	Non-hazardous by WHMIS criteria.
Chronic effects	Non-hazardous by WHMIS criteria.
Carcinogenicity	Non-hazardous by WHMIS criteria.

### ACGIH - Threshold Limits Values - Carcinogens

Isopropanol	67-63-0	A4 - Not Classifiable as a Human Carcinogen
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<b>Mutagenicity</b>	Non-hazardous by WHMIS criteria.
<b>Reproductive effects</b>	Non-hazardous by WHMIS criteria.
<b>Teratogenicity</b>	Non-hazardous by WHMIS criteria.

## 12. Ecological Information

<b>Ecotoxicity effects</b>	Components of this product have been identified as having potential environmental concerns.
<b>Environmental effects</b>	Not available
<b>Aquatic toxicity</b>	Not available
<b>Persistence and degradability</b>	Not available
<b>Bioaccumulation/accumulation</b>	Not available
<b>Partition coefficient</b>	Not available
<b>Mobility in environmental media</b>	Not available
<b>Chemical fate information</b>	Not available

## 13. Disposal Considerations

<b>Waste codes</b>	Not available
<b>Disposal instructions</b>	Review federal, provincial, and local government requirements prior to disposal. Do not puncture or incinerate container.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

## 14. Transport Information

### Transportation of Dangerous Goods (TDG)

**Basic shipping requirements:**

<b>Proper shipping name</b>	AEROSOLS, flammable
<b>Hazard class</b>	2.1
<b>UN number</b>	1950
<b>Additional information:</b>	
<b>Special provisions</b>	80



## 15. Regulatory Information

<b>Canadian federal regulations</b>	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.	
<b>WHMIS classification</b>	Class A - Compressed Gas, Class B - Division 5; Flammable Aerosol, Class D - Division 2B	
<b>WHMIS status</b>	Controlled	
<b>WHMIS labeling</b>		



### Inventory Status

Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

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## 16. Other Information

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**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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**Prepared by**

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