

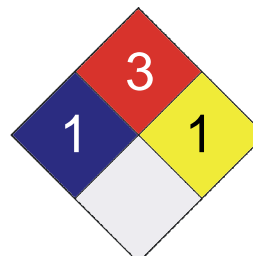
MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name VeriClean™ Solvent; MCC-DC1
CAS # Mixture
Product Use Circuit Board 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
hexamethyldisiloxane	107-46-0	60 - 100
Propylene glycol monomethyl ether	107-98-2	7 - 13
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

Flammable properties	Flammable by WHMIS criteria. Containers may explode when heated.
Extinguishing media	
Suitable extinguishing media	Dry chemical, CO ₂ , water spray or regular foam.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	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.
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Silicon dioxide. Hydrogen fluoride.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	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.
Methods for containment	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.
Methods for cleaning up	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

Handling	Use good industrial hygiene practices in handling this material.
Storage	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

Exposure limits	
Ingredient(s)	Exposure limits
Ethane, 1,1,1,2-tetrafluoro-	ACGIH-TLV TWA: 1000 ppm
hexamethyldisiloxane	ACGIH-TLV Not established
Propylene glycol monomethyl ether	ACGIH-TLV TWA: 100 ppm STEL: 150 ppm
Engineering controls	General ventilation normally adequate.
Personal protective equipment	
Eye/Face protection	Safety glasses
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.

Respiratory protection

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.

General hygiene considerations

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	Slight ethereal
Odour threshold	Not available
Physical state	Gas
pH	Not available
Freezing point	Not available
Boiling point	98 °C (208.40 °F) (liquid)
Flash point	-4 °C (24.80 °F) (liquid) TCC
Evaporation Rate	Not available
Flammability limits in air, lower, % by volume	1.25
Flammability Limits in Air, Upper, % by Volume	18.6
Vapour pressure	274 kPa (can @ 21.1°C)
Vapour density	Not available
Specific gravity	0.77 (H ₂ O = 1)
Octanol/water coefficient	Not available
Solubility (H₂O)	Insoluble
Auto-ignition temperature	365 °C (689.00 °F) (liquid)
Viscosity	0.49 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	Caustics. Acids. Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Silicon dioxide. Hydrogen fluoride.
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 ³ rat
hexamethyldisiloxane	15956 ppm rat
Propylene glycol monomethyl ether	15000 ppm rat

Component analysis - Oral LD50

Ingredient(s)	LD50
Ethane, 1,1,1,2-tetrafluoro-	Not available
hexamethyldisiloxane	Not available
Propylene glycol monomethyl ether	3739 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.
Mutagenicity	Non-hazardous by WHMIS criteria.
Reproductive effects	Non-hazardous by WHMIS criteria.
Teratogenicity	Non-hazardous by WHMIS criteria.

12. Ecological Information

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

13. Disposal Considerations

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

14. Transport Information

Transportation of Dangerous Goods (TDG)

Basic shipping requirements:

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



15. Regulatory Information

Canadian federal regulations	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.
WHMIS classification	Class A - Compressed Gas, Class B - Division 5; Flammable Aerosol, Class D - Division 2B
WHMIS status	Controlled
WHMIS labeling	



Inventory Status**Country(s) or region**

Canada

Canada

Inventory Name

Domestic Substances List (DSL)

Non-Domestic Substances List (NDSL)

On Inventory (Yes/No)*

Yes

No

16. Other Information

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.

Issue date

28-Jun-2006

Effective Date

01-Jul-2006

Expiry Date

01-Jul-2009

Prepared by

Dell Tech Laboratories Ltd. (519) 858-5021