MATERIAL SAFETY DATA SHEET
DC1 - VERICLEAN FLUX REMOVER

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: DC1 - VERICLEAN FLUX REMOVER
PRODUCT NO.: MCC-DC1101, MCC-DC1105, MCC-DC1
PRODUCT USE: Cleaning agent

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
technicalsupport@microcare.com

EMERGENCY TELEPHONE: CHEMTREC (800) 424-9300
IDENTIFICATION No.: UN1950

2 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
FLAMMABLE: Aerosol containers can burst violently when heated, due to excess pressure build-up. Cool aerosol containers exposed to heat with water spray and remove container, if no risk is involved. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Keep out of reach of children.

PHYSICAL AND CHEMICAL HAZARDS
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

HUMAN HEALTH
Splashes in the eyes may cause redness and irritation. Keep out of reach of children. See section 11 for additional information on health hazards.

POTENTIAL HEALTH EFFECTS

INHALATION
May cause irritation to the respiratory system. Vapors may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system.

INGESTION
No harmful effects expected in amounts likely to be ingested by accident.

SKIN CONTACT
Product has a defatting effect on skin. May cause skin irritation/eczema

EYE CONTACT
Irritating to eyes.

CARCINOGENICITY
This substance has no evidence of carcinogenic properties.

3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>EC No.</th>
<th>CAS-No.</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-METHOXY-2-PROPAOL</td>
<td>203-539-1</td>
<td>107-98-2</td>
<td>1-5%</td>
</tr>
<tr>
<td>HEXAMETHYLDISILOXANE</td>
<td>203-492-7</td>
<td>107-46-0</td>
<td>60-100%</td>
</tr>
<tr>
<td>HFC-134a Tetrafluoroethane</td>
<td>212-377-0</td>
<td>811-97-2</td>
<td>10-30%</td>
</tr>
</tbody>
</table>

4 FIRST-AID MEASURES
GENERAL INFORMATION
Promptly remove any clothing that becomes wet. Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

NOTES TO THE PHYSICIAN
No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

INHALATION
Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep the affected person warm and at rest. Get prompt medical attention.

INGESTION
DO NOT INDUCE VOMITING! Immediately rinse mouth and drink plenty of water (200-300 ml). Do not give victim anything to drink if they are unconscious. Consult a physician for specific advice.

SKIN CONTACT
Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

EYE CONTACT
Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA
Use: Powder, Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

SPECIAL FIRE FIGHTING PROCEDURES
Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapors.

UNUSUAL FIRE & EXPLOSION HAZARDS
Aerosol cans may explode in a fire. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

SPECIFIC HAZARDS
Aerosol containers can burst violently when heated, due to excess pressure build-up.

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

AUTO IGNITION TEMPERATURE

<table>
<thead>
<tr>
<th>°C</th>
<th>689 / 365</th>
</tr>
</thead>
</table>

FLAMMABILITY LIMIT -

<table>
<thead>
<tr>
<th>LOWER(%)</th>
<th>1.25</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>FLAMMABILITY LIMIT - UPPER(%)</th>
<th>18.6</th>
</tr>
</thead>
</table>

FLASH POINT (°C)

<table>
<thead>
<tr>
<th>°C</th>
<th>-04.0 / 24.8</th>
</tr>
</thead>
</table>

TCC (Tag closed cup).

6 ACCIDENTAL RELEASE MEASURES

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

SPILL CLEAN UP METHODS
Wear necessary protective equipment. If leakage cannot be stopped, evacuate area. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb in vermiculite, dry sand or earth and place into containers.

7 HANDLING AND STORAGE

HANDLING
Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Keep out of reach of children.

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

8 EXPOSURE CONTROLS/PERSOAL PROTECTION

INGREDIENT COMMENTS
WEL = Workplace Exposure Limits

PROTECTIVE EQUIPMENT
**ENGINEERING MEASURES**

Provide adequate general and local exhaust ventilation.

**RESPIRATORY EQUIPMENT**

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Occupational Exposure Limit.

**HAND PROTECTION**

For prolonged or repeated skin contact use suitable protective gloves.

**EYE PROTECTION**

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

**OTHER PROTECTION**

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.

**HYGIENE MEASURES**

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

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### 9 PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Clear Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight odor Ether.</td>
</tr>
<tr>
<td>Physical Data Comments</td>
<td>Aerosol</td>
</tr>
<tr>
<td>Volatility Description</td>
<td>Volatile.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not soluble in water.</td>
</tr>
<tr>
<td>Boiling Point (°C)</td>
<td>98 °C / 210 F</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>44.6 mm Hg 25</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>-04.0 °C / 24.8 F TCC (Tag closed cup).</td>
</tr>
<tr>
<td>Vapour Density (air=1)</td>
<td>&gt; 1.0</td>
</tr>
<tr>
<td>Volatile by Vol. (%)</td>
<td>100</td>
</tr>
<tr>
<td>Volatile Organic Content</td>
<td>87 g/litre</td>
</tr>
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</table>

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### 10 STABILITY AND REACTIVITY

**Stability**

Stable under normal temperature conditions.

**Conditions to Avoid**


**Hazardous Polymerisation**

Will not polymerize.

**Materials to Avoid**

Strong oxidising substances.

**Hazardous Decomposition Products**

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Vapors/gases/fumes of: Silicon dioxide Formaldehyde

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### 11 TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Name</th>
<th>1-METHOXY-2-PROANOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>HFC-134a Tetrafluoroethane</td>
</tr>
<tr>
<td>Toxic Dose 1 - LD 50</td>
<td>&gt;2085 mg/kg (oral rat)</td>
</tr>
</tbody>
</table>

**Carcinogenicity**

This substance has no evidence of carcinogenic properties.

**Name**

HEXAMETHYLDISILOXANE

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### 12 ECOLOGICAL INFORMATION

[http://www.techni-tool.com](http://www.techni-tool.com)
**DC1 - VERICLEAN FLUX REMOVER**

Name: 1-METHOXY-2-PROPANOL  
HFC-134a Tetrafluoroethane  
LC 50, 96 hrs, Fish mg/l: 450  
EC 50, 48 hrs, Daphnia, mg/l: 980  
Name: HEXAMETHYLDISILOXANE

### 13 DISPOSAL CONSIDERATIONS

**WASTE MANAGEMENT**
Recover and reclaim or recycle, if practical.

**DISPOSAL METHODS**
Empty containers must not be burned because of explosion hazard. Dispose of waste and residues in accordance with local authority requirements.

### 14 TRANSPORT INFORMATION

**DOT PROPER SHIPPING NAME**
AEROSOLS

**DOT PROPER SHIPPING NAME**
Consumer Commodity ORM-D

**DOT PROPER SHIPPING NAME**
AEROSOLS

**IDENTIFICATION No.**
UN1950  
UN NO. SEA: 1950

**IMDG CLASS**
2.1  
IMDG PAGE NO.: 94

**IMDG PACK GR.**
N/A  
EMS: F-D, S-U

**MFAG**
See Subsection 4.2 of MFAG.

**AIR CLASS**
2.1  
AIR SUB CLASS: N/A

**AIR PACK GR.**
N/A

### 15 REGULATORY INFORMATION

**INVENTORIES**

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAN</th>
<th>US</th>
<th>EU</th>
<th>AUS</th>
<th>JAP</th>
<th>KOR</th>
<th>CHN</th>
<th>PHLP</th>
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<tbody>
<tr>
<td>HFC-134a Tetrafluoroethane</td>
<td>OSL</td>
<td>Yes</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>TSCA 12(b) Export Notification</th>
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</thead>
<tbody>
<tr>
<td>HFC-134a Tetrafluoroethane</td>
<td>No</td>
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</table>

**SARA (311/312) HAZARD CATEGORIES**
Acute Chronic Fire

**REGULATORY STATUS (US)**
TSCA: The ingredients of this product are on the TSCA Inventory. This Product is Hazardous under the OSHA Hazard Communication Standard.

**REGULATORY REFERENCES**

**WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM -WHMIS**

**LABEL(S) FOR SUPPLY**
DC1 - VERICLEAN FLUX REMOVER

CONTROLLED PRODUCT CLASSIFICATION

Canadian WHMIS Classification A B5 D2A D2B 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)

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>VALUE</th>
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</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>1</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICAL</td>
<td>0</td>
</tr>
<tr>
<td>PERSONAL PROTECTION</td>
<td>supervisor ft</td>
</tr>
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</table>

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

REVISION COMMENTS

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

REVISION DATE 14/07/2009

VERSION No. 1

SAFETY DATA SHEET STATUS

Approved.

DATE July 14, 2009

DISCLAIMER

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