SAFETY DATA SHEET
VOC - VOC FREE FLUX REMOVER - ULTRACLEAN, AEROSOL


1. Identification

Product identifier
Product name VOC - VOC FREE FLUX REMOVER - ULTRACLEAN, AEROSOL
Product number MCC-VOC10A, MCC-VOC107, MCC-VOC10Y

Recommended use of the chemical and restrictions on use
Application Cleaning agent.

Details of the supplier of the safety data sheet
Supplier MicroCare Corporation
Contact Person techsupport@microcare.com
Manufacturer MICROCARE CORPORATION
595 John Downey Drive
New Britain, CT 06051
United States of America
CAGE: OATV9
Tel: +1 860-827-0626
Fax: +1 860-827-8105
techsupport@microcare.com

Emergency telephone number
Emergency telephone CHEMTREC (800) 424-9300

2. Hazard(s) identification

Classification of the substance or mixture
OSHA Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.

Health hazards Not Classified

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

Physicochemical Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

Label elements

Pictogram

Signal word Danger
VOC - VOC FREE FLUX REMOVER - ULTRACLEAN, AEROSOL

Hazard statements
- H222 Extremely flammable aerosol.
- H280 Contains gas under pressure; may explode if heated.

Precautionary statements
- P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
- P211 Do not spray on an open flame or other ignition source.
- P251 Pressurized container: Do not pierce or burn, even after use.
- P410+P403 Protect from sunlight. Store in a well-ventilated place.

Supplemental label information
- EUH210 Safety data sheet available on request.
- RCH001a 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

<table>
<thead>
<tr>
<th>Mixture</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Siloxane</td>
<td>30-60%</td>
</tr>
<tr>
<td>CAS number: 107-46-0</td>
<td></td>
</tr>
<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Flam. Liq. 2 - H225</td>
<td></td>
</tr>
<tr>
<td>Not relevant.</td>
<td></td>
</tr>
</tbody>
</table>

| DIMETHYL CARBONATE           | 10-30%        |
| CAS number: 616-38-6         |               |
| Classification               |               |
| Flam. Liq. 2 - H225          |               |

| TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE | 10-30% |
| CAS number: 29118-24-9            |       |
| Classification                     |        |
| Press. Gas, Liquefied - H280      |        |

The Full Text for all Hazard Statements are Displayed in Section 16.

Composition comments
The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of CFR 1900.1200, TSCA: The ingredients of this product are on the TSCA Inventory.

4. First-aid measures

Description of first aid measures

General information
Promptly remove any clothing that becomes wet or contaminated. Move affected person to fresh air at once. Get medical attention if any discomfort continues.

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

Ingestion
Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Consult a physician for specific advice.
VOC - VOC FREE FLUX REMOVER - ULTRACLEAN, AEROSOL

Skin Contact
Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.

Eye contact
Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed

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

Inhalation
Vapors may cause headache, fatigue, dizziness and nausea.

Ingestion
May cause stomach pain or vomiting. Headache.

Skin contact
Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

Eye contact
Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. Irritation and redness, followed by blurred vision.

Indication of immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically. No specific recommendations. If in doubt, get medical attention promptly.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media
Extinguish with the following media: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards
Containers can burst violently or explode when heated, due to excessive pressure build-up. Containers can burst violently or explode when heated, due to excessive pressure build-up. Oxides of carbon. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m3.

Hazardous combustion products
Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Advice for firefighters

Protective actions during firefighting
Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapors.

Special protective equipment for firefighters
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Environmental precautions

Environmental precautions
Do not discharge into drains or watercourses or onto the ground.

Methods and material for containment and cleaning up
VOC - VOC FREE FLUX REMOVER - ULTRACLEAN, AEROSOL

Methods for cleaning up
Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. If leakage cannot be stopped, evacuate area. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers.

Reference to other sections
See Section 11 for additional information on health hazards.

7. Handling and storage

Precautions for safe handling
Usage precautions
Keep away from heat, sparks and open flame. Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapors. Use approved respirator if air contamination is above an acceptable level.

Conditions for safe storage, including any incompatibilities
Storage precautions
Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.

Specific end use(s)
Cleaning agent.

Reference to other sections
Store away from incompatible materials (see Section 10).

8. Exposure Controls/personal protection

Control parameters
Occupational exposure limits

Ingredient comments
WEL = Workplace Exposure Limits

Exposure controls
Protective equipment

Appropriate engineering controls
Provide adequate general and local exhaust ventilation.

Eye/face protection
Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber).

Other skin and body 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 hands 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.

Respiratory protection
No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

9. Physical and Chemical Properties
## VOC - VOC FREE FLUX REMOVER - ULTRACLEAN, AEROSOL

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Liquid. Aerosol.</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Clear liquid. Colorless.</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Slight. Ether.</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Initial boiling point and range</strong></td>
<td>85°C/187°F @ 101.3 kPa</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>3.0°C / 37°F Method: TCC (Tag closed cup).</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Evaporation factor</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td>Lower flammable/explosive limit: 1.25 %(V) Upper flammable/explosive limit: 18.6 %(V)</td>
</tr>
<tr>
<td><strong>Other flammability</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>0.79 kPa @ 20°C</td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
<td>&gt; 1.0</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Bulk density</strong></td>
<td>0.850</td>
</tr>
<tr>
<td><strong>Solubility(ies)</strong></td>
<td>Insoluble in water.</td>
</tr>
<tr>
<td><strong>Partition coefficient</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Oxidising properties</strong></td>
<td>There are no chemical groups present in the product that are associated with oxidizing properties.</td>
</tr>
<tr>
<td><strong>Refractive index</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Particle size</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Molecular weight</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Volatility</strong></td>
<td>100%</td>
</tr>
<tr>
<td><strong>Saturation concentration</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Critical temperature</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Flammability</strong></td>
<td>Flammable aerosol.</td>
</tr>
</tbody>
</table>

### 10. Stability and reactivity

**Reactivity**

There are no known reactivity hazards associated with this product.
Stability
Stable at normal ambient temperatures.

Possibility of hazardous reactions
Will not polymerize.

Conditions to avoid
Avoid heat, flames and other sources of ignition.

Materials to avoid

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

11. Toxicological information

Information on toxicological effects

Other health effects
There is no evidence that the product can cause cancer.

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

Ingestion
No harmful effects expected from quantities 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.

Toxicological information on ingredients.

Methyl Siloxane

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 106.0

Species Rat

TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 965.0

Species Rat

ATE inhalation (vapours mg/l) 965.0

12. Ecological Information

Ecotoxicity
Not known.

Toxicity
Very toxic to aquatic organisms.

Ecological information on ingredients.

Methyl Siloxane
# VOC - VOC FREE FLUX REMOVER - ULTRACLEAN, AEROSOL

## Toxicity
- Very toxic to aquatic organisms.

### Acute toxicity - fish
- LC₅₀, 96 hours: 0.46 mg/l, Fish

### Acute toxicity - aquatic invertebrates
- EC₅₀, 72 hours: 0.79 mg/l, Daphnia magna

### Acute toxicity - aquatic plants
- EC₅₀, 96 hours: > 0.93 mg/l, Selenastrum capricornutum

## DIMETHYL CARBONATE

### Toxicity
- Not considered toxic to fish.

## TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE

### Acute toxicity - aquatic invertebrates
- EC₅₀, 48 hours: >160 mg/l, Daphnia magna

### Persistence and degradability
- The degradability of the product is not known.

### Ecological information on ingredients

## DIMETHYL CARBONATE

### Persistence and degradability
- The product is biodegradable.

## TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE

### Persistence and degradability
- The product is not readily biodegradable.

### Bioaccumulative potential
- Bio-Accumulative Potential
  - Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

### Partition coefficient
- No information available.

### Mobility in soil
- Mobility
  - Not considered to be a significant hazard due to the small quantities used.

### Results of PBT and vPvB assessment
- This product does not contain any substances classified as PBT or vPvB.

### Other adverse effects
- None known.

## 13. Disposal considerations

### Waste treatment methods
- **General information**: Reuse or recycle products wherever possible.
- **Disposal methods**: Empty containers must not be punctured or incinerated because of the risk of an explosion. Reuse or recycle products wherever possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
14. Transport information

**UN Number**

UN No. (DOT)  UN1950  
UN No. (TDG)  UN1950  
UN No. (IMDG)  UN1950  
UN No. (ICAO)  UN1950  

**UN proper shipping name**

Proper shipping name (DOT)  UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY  
Proper shipping name (TDG)  UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY  
Proper shipping name (IMDG)  UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY  
Proper shipping name (ICAO)  UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY  

**Transport hazard class(es)**

TDG class  2.1  
TDG label  2.1  
IMDG Class  2.1  
ICAO class/division  2.1  

**Transport labels**

![Flammable label]

**Packing group**

DOT pack group  N/A  
TDG Packing Group  N/A  
IMDG packing group  N/A  
ICAO packing group  N/A  

**Environmental hazards**

Environmentally Hazardous Substance No.

**Special precautions for user**

EmS  F-E, S-E  

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code  Not applicable.

15. Regulatory information

**US Federal Regulations**

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities  Not listed.
VOC - VOC FREE FLUX REMOVER - ULTRACLEAN, AEROSOL

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
Not listed.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
Not listed.

SARA 313 Emission Reporting
Not listed.

CAA Accidental Release Prevention
Not listed.

SARA (311/312) Hazard Categories
Acute
Chronic
Fire
Pressure

OSHA Highly Hazardous Chemicals
Not listed.

US State Regulations
California Proposition 65 Carcinogens and Reproductive Toxins
Not listed.

California Air Toxics "Hot Spots" (A-II)
Not listed.

California Directors List of Hazardous Substances
Not listed.

Massachusetts "Right To Know" List
DIMETHYL CARBONATE
Yes.

Rhode Island "Right To Know" List
Not listed.

Minnesota "Right To Know" List
Not listed.

New Jersey "Right To Know" List
DIMETHYL CARBONATE
Yes.

Pennsylvania "Right To Know" List
DIMETHYL CARBONATE
Yes.

Inventories
Canada - DSL/NDSL
Yes
VOC - VOC FREE FLUX REMOVER - ULTRACLEAN, AEROSOL

US - TSCA
All the ingredients are listed.

US - TSCA 12(b) Export Notification
Not listed.

16. Other information

<table>
<thead>
<tr>
<th>Revision comments</th>
<th>NOTE: Lines within the margin indicate significant changes from the previous revision.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>1/26/2016</td>
</tr>
<tr>
<td>Revision</td>
<td>8</td>
</tr>
<tr>
<td>Supersedes date</td>
<td>12/31/2015</td>
</tr>
<tr>
<td>SDS No.</td>
<td>AEROSOL - VOC</td>
</tr>
<tr>
<td>SDS status</td>
<td>Approved.</td>
</tr>
<tr>
<td>Hazard statements in full</td>
<td>H222 Extremely flammable aerosol.</td>
</tr>
<tr>
<td></td>
<td>H225 Highly flammable liquid and vapor.</td>
</tr>
<tr>
<td></td>
<td>H280 Contains gas under pressure; may explode if heated.</td>
</tr>
<tr>
<td>NFPA - health hazard</td>
<td>Irritation, minor residual injury. (1)</td>
</tr>
<tr>
<td>NFPA - flammability hazard</td>
<td>Ignites easily. (3)</td>
</tr>
<tr>
<td>NFPA - instability hazard</td>
<td>Normally stable. (0)</td>
</tr>
<tr>
<td>NFPA - special hazard</td>
<td>N/A</td>
</tr>
<tr>
<td>ACA HMIS Health rating.</td>
<td>Slight Hazard. (1)</td>
</tr>
<tr>
<td>ACA HMIS Flammability rating.</td>
<td>Ignites easily. (3)</td>
</tr>
<tr>
<td>ACA HMIS Physical hazard rating.</td>
<td>Normally stable. (0)</td>
</tr>
<tr>
<td>ACA HMIS Personal protection rating.</td>
<td>A</td>
</tr>
</tbody>
</table>

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.