

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date: 26.11.2008

Revision: 26.11.2008

1 Identification of substance:

· Product details:**· Trade name: VeriClean EU Solvent, MCC-DC1107****· Registration number**

This substance has (All substances contained in this preparation have) been pre-registered according to regulation (EC) No. 1907/2006 in its current version.

A registration is intended.

· Application of the substance / the preparation Special cleaning agent**· Supplier/Manufacturer:**

MicroCare Corporation
595 John Downey Drive
New Britain, CT 06051
United States of America
Tel.: +1-860-827-0626
Fax: +1-860-827-8105

For Europe:

MicroCare Europe bvba
Erasmuslaan 10
B-1804 Cargovil (Zemst)
Belgium
Phone: 0032 2 251 95 05

· Email competent person: angelika.torges@kft.de**· Information department:**

Tech support (Micro Care): Tel.: +1-860-827-0626
Email: techsupport@microcare.com

· Emergency information: National Poisons Information Centre Tel.: +44 (0)870 6006266

2 Hazards identification

· Hazard description:

F Highly flammable

· Information pertaining to particular dangers for man and environment:

R 11 Highly flammable.

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

80.0 % by mass of the contents are flammable

Keep out of the reach of children

· Classification system:

The classification was made according to the latest editions of the EU-lists, and expanded using company data and specialized literature.

3 Composition/information on ingredients

· Chemical characterization**· Description:** Active substance with propellant.

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· Dangerous components:

CAS: 107-46-0	hexamethyldisiloxane	64-72%
EINECS: 203-492-7	F; R 11	
CAS: 107-98-2	1-methoxypropan-2-ol	4-12%
EINECS: 203-539-1	R 10	
Index number: 603-064-00-3		
CAS: 1645-83-6	Trans-1,3,3,3-tetrafluoropro-1-ene	15-20%
ELINCS: 471-480-0		

· **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Remove victim from contaminated area. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration. Call a doctor.
In case of unconsciousness, place patients on their side in a stable position for transportation.
- **After skin contact:**
Remove soiled clothes and shoes.
Clean effected skin thoroughly with water and a mild cleansing agent. No residues shall remain on the skin.
- **After eye contact:**
Rinse the eyes with open eyelids for 10 - 15 minutes with water.
First check the victim for contact lenses and remove if present.
If symptoms persist consult a doctor.
- **After swallowing:** Call a doctor immediately.
- **Information for doctor:**
- **The following symptoms may occur:** Local irritation symptoms
- **Treatment:** Symptomatic treatment

5 Fire fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** Direct jet water
- **Special hazards caused by the material, its products of combustion or resulting gases:**
Dangerous decomposition product see chapter 10: stability and reactivity
Formation of toxic gases is possible during heating or in case of fire.
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:**
Heating leads to pressure increase entailing danger of bursting and explosion. Immediately cool neighbouring packages and containers with sprayed water and, if possible, remove them out of the danger zone
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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6 Accidental release measures

- **Person-related safety precautions:**



Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Do not smoke - keep ignition sources away

- **Measures for environmental protection:**

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

- **Measures for cleaning/collecting:**

Ensure adequate ventilation.

Absorb with non-combustible material like sand, soil or diatomite.

Send for recovery or disposal in suitable receptacles.

Dispose contaminated material as waste according to item 13.

7 Handling and storage

- **Handling**

- **Information for safe handling:**

Keep away from heat and direct sunlight.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Take measures against electrostatic charge

Ensure good ventilation/exhaustion at the workplace.

- **Information about protection against explosions and fires:**

Fumes can combine with air to form an explosive mixture.

Emergency cooling must be available in case of nearby fire.

Do not spray on a naked flame or any incandescent material.



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges

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

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Store cool and dry in a well ventilated area.

Store away from open flames, sources of heat or sparks.

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from feed.

- **Further information about storage conditions:**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat (steam pipes, radiators etc.) open flames, other ignition sources and direct sunlight.

- **Storage class 2B** pressurized gas containers

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8 Exposure controls and personal protection

- **Additional information about design of technical systems:**

Install appropriate mechanical ventilation.
Keep away from open flames and other ignition sources.
Protect against electrostatic charges.

- **Components with limit values that require monitoring at the workplace:**

107-98-2 1-methoxypropan-2-ol

IOELV (European Union) Short-term value: 568 mg/m³, 150 ppm
Long-term value: 375 mg/m³, 100 ppm
Skin

WEL (Great Britain) Short-term value: 560 mg/m³, 150 ppm
Long-term value: 375 mg/m³, 100 ppm
Sk

OEL (Ireland) Short-term value: 368 mg/m³, 100 ppm
Long-term value: 184 mg/m³, 50 ppm
IOELV

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Personal protective equipment**

- **General protective and hygienic measures:**

The usual precautionary measures should be adhered to when handling chemicals.
Wash hands before breaks and at the end of work.
Immediately remove all soiled and contaminated clothing
Do not inhale gases / fumes / aerosols.
Avoid close or long term contact with the skin.
Avoid contact with the eyes.
After skin contact cleanse skin thoroughly.
After contact with eyes rinse immediately.

- **Breathing equipment:**

Not necessary if room is well-ventilated.
In case of unintentional release of substance, exceeding the occupational exposure limit value:
Short term filter device:
Filter A

- **Protection of hands:**

At longer contact: protective gloves
To avoid skin problems reduce the wearing of gloves to the required minimum.
Check the permeability prior to each renewed use of the glove.
After use of gloves apply skin-cleaning agents and skin cosmetics.

- **Material of gloves:**

The selection of suitable depends upon the material, and also upon the quality of the gloves. The degree of protection will vary from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material:**

The exact penetration time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Safety glasses

- **Body protection:** Protective work clothing.

9 Physical and chemical properties:

- **General Information**

Form:	Liquid Aerosol
Colour:	Colourless Clear
Odour:	Ether-like

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- **Change in condition:**
 - Melting point/Melting range:** not determined
 - Boiling point/Boiling range:** 98°C
- **Flash point:** -4°C (TCC. ASTM-D-56)
- **Ignition temperature:** 365°C
- **Self ignition temperature:** Product is not self-igniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- **Explosion limits:**
 - Lower:** 1.25 Vol %
 - Upper:** 18.6 Vol %
- **Vapour pressure at 25°C:** 59 hPa
- **Density at 25°C:** 0.77 g/cm³
- **Solubility in / Miscibility with Water:** Insoluble

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
Keep away from heat and direct sunlight.
- **Materials to be avoided:** Strong oxidants
- **Dangerous products of decomposition:**
In the case of fire or at high temperatures the formation of the following decomposition products is possible.
Carbon monoxide and carbon dioxide
Possibly traces of:
Toxic pyrolyzates
Siliconoxides
Formaldehyde

11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**
 - 107-46-0 hexamethyldisiloxane**
Dermal LD₅₀ 16000 mg/kg (rabbit)
 - 107-98-2 1-methoxypropan-2-ol**
Oral LD₅₀ 5000 mg/kg (rat)
Dermal LD₅₀ 13500 mg/kg (rabbit)
Inhalative LC₅₀/4 h 6 mg/l (rat)
 - 1645-83-6 Trans-1,3,3,3-tetrafluoropro-1-ene**
Inhalative LC₅₀ > 965 mg/l (rat)
LC₅₀/4h > 100000 ppm (mouse)
> 207000 ppm (rat)
- **Primary irritant effect:**
 - on the skin:**
Prolonged or repeated exposure may cause slight skin irritation.
Repeated contact has a drying effect on the skin.
 - on the eye:** Light irritation possible

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- **Sensitization:** No sensitizing effects known.

12 Ecological information

- **Ecotoxicological effects:**
- **Aquatic toxicity:**

1645-83-6 Trans-1,3,3,3-tetrafluoropro-1-ene

EC₅₀/48h > 160 mg/l (daphnia magna)NOEC/72 h > 170 mg/l (algae)
(growth inhibition)

NOEC/96h > 117 mg/l (cyprinus carpio)

- **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

According to appendix 4 of VwVwS dated 27.7.2005 (German regulation)

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Danger to drinking water is possible if large quantities leak into the ground or into water course.

13 Disposal considerations

- **Product:**
- **Recommendation:**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Disposal according to instructions of local authorities.

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 2 5F Gases.
- **Danger code (Kemler):** -
- **UN-Number:** 1950
- **Packaging group:** -
- **Label:** 2.1
- **Description of goods:** 1950 AEROSOLS
- **Limited quantities (LQ)** LQ2
- **Transport category** 2
- **Tunnel restriction code** B1D
- **Remarks:** Limited Quantity: 1 l per inner packaging; 30 kg gross per packaging unit

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· **Maritime transport IMDG:**



- **IMDG Class:** 2.1
- **UN Number:** 1950
- **Label:** 2.1
- **Packaging group:** -
- **EMS Number:** F-D,S-U
- **Marine pollutant:** -
- **Proper shipping name:** AEROSOLS
- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 2.1
- **UN/ID Number:** 1950
- **Label:** 2.1
- **Packaging group:** -
- **Proper shipping name:** AEROSOLS, flammable
- **Remarks:** Packing Instructions:
For Limited Quantities: Y203(Max Net Qty/Pkg: 30 kg G)
Passenger and Cargo Aircraft: 203 (Max Net Qty/Pkg: 75 kg)
Cargo Aircraft only: 203 (Max Net Qty/Pkg: 150 kg)

15 Regulations

· **Markings according to EC guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

· **Code letter and hazard designation of product:**



F Highly flammable

· **Risk phrases:**

11 Highly flammable.

· **Safety phrases:**

- 9 Keep container in a well-ventilated place.
- 16 Keep away from sources of ignition - No smoking.
- 24 Avoid contact with skin.
- 51 Use only in well-ventilated areas.
- 60 This material and its container must be disposed of as hazardous waste.

· **Special labelling of certain preparations:**

- Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
- 80.0 % by mass of the contents are flammable
- Keep out of the reach of children

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- **National regulations**
 - **Information about limitation of use:** Restrictions on juvenile employment must be observed.
 - **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
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16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant R-phrases:**
 - 10 Flammable.
 - 11 Highly flammable.
 - **Department issuing MSDS:**
 - KFT Chemieservice GmbH
 - Marienstr. 3 D-64347 Griesheim
 - Postfach 1451 D-64345 Griesheim
 - Tel.: +49-6155-823241
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 - **Contact:** Angelika Torges
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