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

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

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.

Physical hazards Flam. Aerosol 1 - H222 Press. Gas, Liquefied - H280

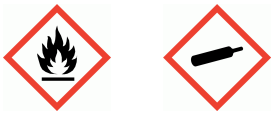
Health hazards Not Classified

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

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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

Methyl Siloxane **30-60%**
CAS number: 107-46-0

Classification
Flam. Liq. 2 - H225
Not relevant.

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.

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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

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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 uses(s)

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

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Information on basic physical and chemical properties

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

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.

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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	Strong oxidizing agents. Strong alkalis. Strong mineral acids.
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 (LC_{50} vapours mg/l)	106.0
Species	Rat

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

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	965.0
Species	Rat
ATE inhalation (vapours mg/l)	965.0

12. Ecological Information

Ecotoxicity	Not known.

Toxicity

Toxicity	Very toxic to aquatic organisms.

Ecological information on ingredients.

Methyl Siloxane

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Toxicity	Very toxic to aquatic organisms.
Acute toxicity - fish	LC_{50}, 96 hours: 0.46 mg/l mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 72 hours: 0.79 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 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	EC_{50}, 48 hours: >160 mg/l, Daphnia magna

Persistence and degradability

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

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

Other adverse effects

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.

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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

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.

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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

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US - TSCA
All the ingredients are listed.

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

16. Other information

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