



SAFETY DATA SHEET

DC1 - NO-CLEAN FLUX REMOVER - VERICLEAN, AEROSOL

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	DC1 - NO-CLEAN FLUX REMOVER - VERICLEAN, AEROSOL
Product number	MCC-DC1101, MCC-DC1105, MCC-DC1, MCC-DC110Y
Synonyms; trade names	"DC1 - VeriClean Defluxer/Degreaser, Plastic Safe"

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Cleaning agent.
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1.3. Details of the supplier of the safety data sheet

Supplier	MICROCARE EUROPE BVBA VEKESTRAAT 29 B11 INDUSTRIEZONE 'T SAS 1910 KAMPENHOUT, Belgium Phone +32.2.251.95.05 Fax +32.2.400.96.39
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

1.4. Emergency telephone number

Emergency telephone	CHEMTREC UK (London) +(44)-870-8200418 +1 703-741-5970 (from anywhere in the world)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Aerosol 1 - H222, H229
Health hazards	Not Classified
Environmental hazards	Aquatic Acute 1 - H400

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.

2.2. Label elements

DC1 - NO-CLEAN FLUX REMOVER - VERICLEAN, AEROSOL**Pictogram****Signal word**

Danger

Hazard statements

H222 Extremely flammable aerosol.
 H229 Pressurised container: may burst if heated
 H400 Very toxic to aquatic life.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Do not pierce or burn, even after use.
 P273 Avoid release to the environment.
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
 P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information

EUH210 Safety data sheet available on request.
 RCH001a For use in industrial installations only.

Supplementary precautionary statements

P391 Collect spillage.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

HEXAMETHYLDISILOXANE (Methyl siloxane)	60-100%
CAS number: 107-46-0	EC number: 203-492-7
	REACH registration number: 01-2119496108-31
M factor (Acute) = 1	
Classification	
Flam. Liq. 2 - H225	
Aquatic Acute 1 - H400	
HFC-134a Tetrafluoroethane	10-30%
CAS number: 811-97-2	EC number: 212-377-0
	REACH registration number: 05-2114285300-58-0000
Classification	
Press. Gas, Liquefied - H280	

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1-METHOXY-2-PROPANOL	1-5%
CAS number: 107-98-2	EC number: 203-539-1
	REACH registration number: 05-2114327809-39-0000
Classification	
Flam. Liq. 3 - H226	
STOT SE 3 - H336	

The full text for all hazard statements is displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

Composition**SECTION 4: First aid measures****4.1. 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.
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.

4.2. 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	Vapours 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.

4.3. Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures**5.1. 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.

5.2. Special hazards arising from the substance or mixture

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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/m ³ .
Hazardous combustion products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
5.3. 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 vapours. Bursting aerosol containers may be propelled from a fire at high speed.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. 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.
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6.2. Environmental precautions

Environmental precautions	Do not discharge into drains or watercourses or onto the ground.
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6.3. Methods and material for containment and cleaning up

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.
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6.4. Reference to other sections

Reference to other sections	See Section 11 for additional information on health hazards.
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SECTION 7: Handling and storage

7.1. 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 vapours. Use approved respirator if air contamination is above an acceptable level.
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7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.
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7.3. Specific end use(s)

Specific end use(s)	Cleaning agent.
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Reference to other sections.	Store away from incompatible materials (see Section 10).
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SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

HFC-134a Tetrafluoroethane

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 4240 mg/m³

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1-METHOXY-2-PROPANOL

Long-term exposure limit (8-hour TWA): WEL 100 ppm 375 mg/m³

Short-term exposure limit (15-minute): WEL 150 ppm 560 mg/m³

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

Additional Occupational Exposure Limits

Ingredient comments WEL = Workplace Exposure Limits

8.2. 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 vapour 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.

Respiratory protection

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

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Clear liquid. Colourless.
Odour	Slight. Ether.
Odour threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	98°C/210°F @ 101.3 kPa
Flash point	-4.0°C/24°F TCC (Tag closed cup).
Evaporation rate	No information available.
Evaporation factor	No information available.

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Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 18.6 %(V) Lower flammable/explosive limit: 1.25 %(V)
Other flammability	No information available.
Vapour pressure	5.95 kPa @ 25°C
Vapour density	> 1.0
Relative density	0.88 @ unspecified°C
Bulk density	No information available.
Solubility(ies)	Insoluble in water.
Partition coefficient	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 oxidising properties.
Comments	Aerosol.
<u>9.2. Other information</u>	
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.
Volatile organic compound	This product contains a maximum VOC content of 87 g/litre.
UDF Phrase 1	Flammable aerosol.

SECTION 10: Stability and reactivity**10.1. Reactivity**

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

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Will not polymerise.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid Strong oxidising agents. Strong alkalis. Strong mineral acids.

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10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Inhalation May cause respiratory system irritation. Vapours 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.

HEXAMETHYLDISILOXANE (Methyl siloxane)

Acute toxicity - inhalation

Acute toxicity inhalation 106.0
(LC₅₀ vapours mg/l)

Species Rat

HFC-134a Tetrafluoroethane

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

Acute toxicity - inhalation

Acute toxicity inhalation 567,000.0
(LC₅₀ gases ppmV)

Species Rat

ATE inhalation (gases 567,000.0
ppm)

SECTION 12: Ecological Information

Ecotoxicity Not known.

12.1. Toxicity

Toxicity Very toxic to aquatic organisms.

Ecological information on ingredients.

HEXAMETHYLDISILOXANE (Methyl siloxane)

Toxicity Very toxic to aquatic organisms.

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

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Acute toxicity - fish	LC ₅₀ , 96 hours: 0.46 mg/l mg/l, Algae
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

HFC-134a Tetrafluoroethane

Acute toxicity - fish	LC ₅₀ , 96 hours: 450 mg/l, Algae
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 980 mg/l, Daphnia magna

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

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

Partition coefficient No information available.

Ecological information on ingredients.

HFC-134a Tetrafluoroethane

Partition coefficient Pow: 1.06

12.4. Mobility in soil

Mobility Not considered to be a significant hazard due to the small quantities used.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Other adverse effects The product contains a substance which has a photochemical ozone creation potential.

SECTION 13: Disposal considerations

13.1. 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.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	NA
UN No. (IMDG)	UN1950
UN No. (ICAO)	UN1950

14.2. UN proper shipping name

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Proper shipping name (ADR/RID) LIMITED QUANTITY

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

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

Proper shipping name (ADN) LIMITED QUANTITY

14.3. Transport hazard class(es)

ADR/RID classification code F

IMDG class 2.1 LIMITED QUANTITY

ICAO class/division 2.1 LIMITED QUANTITY

14.4. Packing group

ADR/RID packing group N/A

IMDG packing group N/A

ICAO packing group N/A

ADN packing group N/A

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

**14.6. Special precautions for user**

EmS F-D, S-U

ADR transport category 2

Emergency Action Code •3YE

Hazard Identification Number (ADR/RID) 23

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

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

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

National regulations Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

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Restrictions (Title VIII Regulation 1907/2006) No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

Yes

SECTION 16: Other information

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

Revision date 05/04/2017

Revision 59

Supersedes date 05/04/2017

SDS number AEROSOL - DC1

SDS status Approved.

Hazard statements in full H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H229 Pressurised container: may burst if heated
H280 Contains gas under pressure; may explode if heated.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.

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.