



SAFETY DATA SHEET

Tergo™ Chlorine-Free Cleaning Fluid - Boil

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

1. Identification

Product identifier

Product name Tergo™ Chlorine-Free Cleaning Fluid - Boil

Product number MCC-TCFCF01EUP

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 1-800-424-9300 (within the U.S.)
+1 703-741-5970 (from anywhere in the world)

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 STOT SE 3 - H335, H336

Environmental hazards Aquatic Chronic 3 - H412

Human health Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Mild dermatitis, allergic skin rash.

Environmental The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Physicochemical Vapors are heavier than air and may travel along the floor and accumulate in the bottom of containers. Gas or vapor displaces oxygen available for breathing (asphyxiant).

Label elements

Tergo™ Chlorine-Free Cleaning Fluid - Boil

Pictogram



Signal word

Warning

Hazard statements

H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing vapor/ spray.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P301+P312 If swallowed: Call a poison center/ doctor if you feel unwell.
 P302+P352 If on skin: Wash with plenty of water.
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P332+P313 If skin irritation occurs: Get medical advice/ attention.
 P337+P313 If eye irritation persists: Get medical advice/ attention.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information

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

Contains

Proprietary Fluorocarbon, Proprietary A, Proprietary B

3. Composition/information on ingredients

Mixtures

| | |
|---|---------------|
| Proprietary Fluorocarbon CAS number: Proprietary | 30-60% |
| Classification Eye Irrit. 2A - H319 STOT SE 3 - H336 | |
| Proprietary A CAS number: Proprietary | 30-60% |
| Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 STOT SE 3 - H335 Aquatic Chronic 3 - H412 | |

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| | |
|-------------------------|-------------|
| Proprietary B | 1-5% |
| CAS number: Proprietary | |
| Classification | |
| Acute Tox. 4 - H302 | |
| Acute Tox. 4 - H332 | |
| Proprietary C | 1-5% |
| CAS number: Proprietary | |
| Classification | |
| Skin Corr. 1C - H314 | |
| Eye Dam. 1 - H318 | |
| ETHANOL | 1-5% |
| CAS number: 64-17-5 | |
| Classification | |
| Flam. Liq. 2 - H225 | |

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

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

Composition

4. First-aid measures

Description of first aid measures

| | |
|-----------------------------------|--|
| General information | Never give anything by mouth to an unconscious person. Do not induce vomiting. Place unconscious person on the side in the recovery position and ensure breathing can take place. If breathing stops, provide artificial respiration. Consult a physician for specific advice. |
| Inhalation | Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention. |
| Ingestion | Never give anything by mouth to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention immediately. |
| Skin Contact | Wash skin thoroughly with soap and water. Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if irritation persists after washing. |
| Eye contact | Rinse cautiously with water for several minutes. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes. |
| Protection of first aiders | First aid personnel should wear appropriate protective equipment during any rescue. |

Most important symptoms and effects, both acute and delayed

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| | |
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| General information | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Extensive use of the product in areas with inadequate ventilation may result in the accumulation of hazardous vapor concentrations. May cause discomfort. Symptoms following overexposure may include the following: Headache. Dizziness. Nausea, vomiting. |
| Inhalation | May cause an asthma-like shortness of breath. Vapors may cause headache, fatigue, dizziness and nausea. Arrhythmia (deviation from normal heart beat). |
| Ingestion | Pulmonary edema, frothy sputum. |
| Skin contact | Skin irritation. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. |
| Eye contact | May cause temporary eye irritation. Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. |

Indication of immediate medical attention and special treatment needed

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

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire. Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Water spray. Never use water by itself on spillage; this will spread the spill and cause further contamination.

Special hazards arising from the substance or mixture

Flammability Class The product is not flammable. TCC (Tag closed cup).

Specific hazards Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapors. Closed containers can burst violently when heated, due to excess pressure build-up.

Hazardous combustion products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Fire creates: Carbonyl compounds. Chlorides.

Advice for firefighters

Protective actions during firefighting Containers close to fire should be removed or cooled with water.

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 Warn everybody of potential hazards and evacuate if necessary. Keep unnecessary and unprotected personnel away from the spillage. Provide adequate ventilation. Avoid inhalation of vapors. Do not enter storage areas or confined spaces unless adequately ventilated. Use approved respirator if air contamination is above an acceptable level. No smoking, sparks, flames or other sources of ignition near spillage. Follow precautions for safe handling described in this safety data sheet. For personal protection, see Section 8.

Environmental precautions

Environmental precautions Contain spillage with sand, earth or other suitable non-combustible material. Avoid release to the environment.

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Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with non-combustible, absorbent material. Do not discharge into drains or watercourses or onto the ground. Contain and absorb spillage with sand, earth or other non-combustible material. Collect spillage with a shovel and broom, or similar and reuse, if possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. It is recommended that gloves are made of the following material: Neoprene.

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Provide adequate ventilation. Avoid inhalation of vapors/spray and contact with skin and eyes.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Unspecified storage. The product is not flammable.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

Usage description Cleaning agent.

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

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

ETHANOL

Short-term exposure limit (15-minute): ACGIH 1000 ppm 1880 mg/m³
A3

Long-term exposure limit (8-hour TWA): OSHA 1000 ppm 1900 mg/m³

ACGIH = American Conference of Governmental Industrial Hygienists.
A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.
OSHA = Occupational Safety and Health Administration.

Additional Occupational Exposure Limits

ETHANOL (CAS: 64-17-5)

Ingredient comments WEL = Workplace Exposure Limits

Exposure controls

Protective equipment



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| Appropriate engineering controls | No specific ventilation requirements. This product must not be handled in a confined space without adequate 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. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield. |
| 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 suitable protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact. |
| Hygiene measures | Avoid inhalation of spray mist and contact with skin and eyes. When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. |
| Respiratory protection | Vapors are heavier than air and may travel along the floor and accumulate in the bottom of containers. In confined or poorly-ventilated spaces, a supplied-air respirator must be worn. Wear self-contained breathing apparatus with full facepiece. |
| Thermal hazards | Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapors. |

9. Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|---|-------------------------------|
| Appearance | Liquid. |
| Color | Colorless. |
| Odor | Mild. |
| Odor threshold | No information available. |
| pH | Not determined. |
| Melting point | No information available. |
| Initial boiling point and range | Not determined. |
| Flash point | The product is not flammable. |
| Evaporation rate | Not determined. |
| Evaporation factor | No information available. |
| Flammability (solid, gas) | Not applicable. |
| Upper/lower flammability or explosive limits | Not determined. |
| Other flammability | No information available. |
| Vapor pressure | Not determined. |
| Vapor density | No information available. |
| Relative density | No information available. |
| Bulk density | Not determined. |

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| Solubility(ies) | No information available. |
| Partition coefficient | No information available. |
| Auto-ignition temperature | Not determined. |
| Decomposition Temperature | No information available. |
| Viscosity | No information available. |
| Explosive properties | No information available. |
| Refractive index | No information available. |
| Particle size | Not applicable. |
| Molecular weight | Not applicable. |
| Volatility | No information available. |
| Saturation concentration | No information available. |
| Critical temperature | No information available. |
| Flammability | The product is not flammable. |

10. Stability and reactivity

| | |
|---|--|
| Reactivity | The reactivity data for this product will be typical of those for the following class of materials: Amides. |
| Stability | Stable at normal ambient temperatures and when used as recommended. |
| Possibility of hazardous reactions | Will not polymerize. |
| Conditions to avoid | Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapors. |
| Materials to avoid | Alkali metals. Alkaline earth metals. Powdered metal. Acids - oxidizing. |
| Hazardous decomposition products | Will decompose at temperatures exceeding 464°F. Heating may generate the following products: Toxic and corrosive gases or vapors. Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO ₂). Carbon monoxide (CO). |

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 1,241.85

Acute toxicity - dermal

ATE dermal (mg/kg) 4,705.88

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 275.0

Skin corrosion/irritation

Animal data Slightly irritating.

Serious eye damage/irritation

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| Serious eye damage/irritation | This product is moderately irritating. Rabbit |
| Inhalation | Vapors may irritate throat/respiratory system. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing. |
| Ingestion | May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication. |
| Skin Contact | Product has a defatting effect on skin. May cause allergic contact eczema. |
| Eye contact | May cause temporary eye irritation. |
| Medical Symptoms | Gas or vapor in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache. Fatigue. Nausea, vomiting. |

Toxicological information on ingredients.

Proprietary Fluorocarbon

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,001.0

Species Rat

ATE oral (mg/kg) 2,001.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,001.0

Species Rat

ATE dermal (mg/kg) 2,001.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 24.8

Species Rat

ATE inhalation (vapours mg/l) 24.8

Proprietary A

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 550.0

Species Rat

ATE oral (mg/kg) 550.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rabbit

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ATE dermal (mg/kg) 2,000.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 3,551.0

Species Rabbit

ATE inhalation (vapours mg/l) 3,551.0

Proprietary B

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,230.0

Species Rat

ATE oral (mg/kg) 1,230.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 8.8

Species Rat

ATE inhalation (vapours mg/l) 11.0

ETHANOL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 7,060.0

Species Rat

ATE oral (mg/kg) 7,060.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 20,000.0

Species Rat

ATE inhalation (vapours mg/l) 20,000.0

Carcinogenicity

IARC carcinogenicity IARC Group 1 Carcinogenic to humans.

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Ecotoxicity

The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Ecological information on ingredients.

Proprietary Fluorocarbon

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

Proprietary A

Acute toxicity - fish LC₅₀, 96 hours: 5.6 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 2.8 mg/l, Daphnia magna

ETHANOL

Acute toxicity - fish LC₅₀, 96 hours: >10,000 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 7,800 mg/l, Daphnia magna

Acute toxicity - aquatic plants , 96 hours: 1000 mg/l, Freshwater algae

Persistence and degradability

Persistence and degradability No data available.

Ecological information on ingredients.

Proprietary Fluorocarbon

Persistence and degradability The product is not readily biodegradable.

ETHANOL

Persistence and degradability The product is expected to be biodegradable.

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient No information available.

Ecological information on ingredients.

Proprietary Fluorocarbon

Partition coefficient log Pow: 2.18

Proprietary A

Partition coefficient No information available.

Proprietary B

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Partition coefficient log Pow: 1.05

ETHANOL

Bio-Accumulative Potential Bioaccumulation is unlikely.

Partition coefficient No information available.

Mobility in soil

Mobility No data available.

Ecological information on ingredients.

ETHANOL

Mobility The product is soluble in water.

Other adverse effects

Other adverse effects No data available.

13. Disposal considerations

Waste treatment methods

General information Refer to manufacturer/supplier for information on recovery/recycling. Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Reuse or recycle products wherever possible.

14. Transport information

General Not regulated. The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

Transport hazard class(es)

Transport labels

No transport warning sign required.

Environmental hazards

Environmentally Hazardous Substance

No.

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.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Not listed.

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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

OSHA Highly Hazardous Chemicals

Not listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Proprietary A

Known to the State of California to cause developmental and reproductive toxicity.

California Air Toxics "Hot Spots" (A-I)

Not listed.

California Air Toxics "Hot Spots" (A-II)

Not listed.

California Directors List of Hazardous Substances

ETHANOL

Present.

Massachusetts "Right To Know" List

ETHANOL

Present.

Proprietary B

Present.

Rhode Island "Right To Know" List

ETHANOL

Present.

Minnesota "Right To Know" List

ETHANOL

Present.

Proprietary B

Present.

New Jersey "Right To Know" List

ETHANOL

Present.

Pennsylvania "Right To Know" List

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ETHANOL

Present.

Proprietary B

Present.

Inventories

Canada - DSL/NDSL

Yes

US - TSCA

Yes

Australia - AICS

Not listed.

Japan - MITI

Not listed.

16. Other information

| | |
|---|--|
| Revision comments | NOTE: Lines within the margin indicate significant changes from the previous revision. |
| Revision date | 7/12/2017 |
| Revision | 12 |
| Supersedes date | 3/17/2017 |
| SDS No. | BULK - TCFCF01EU |
| SDS status | Approved. |
| Hazard statements in full | H225 Highly flammable liquid and vapor. H302 Harmful if swallowed. H312 Harmful in contact with skin. H315 Causes skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H412 Harmful to aquatic life with long lasting effects. |
| NFPA - instability hazard | Normally stable. (0) |
| ACA HMIS Health rating. | Moderate hazard. (2) |
| NFPA - special hazard | N/A |
| NFPA - health hazard | Temporary incapacitation, injury. (2) |
| NFPA - flammability hazard | Burns only if pre-heated. (1) |
| ACA HMIS Flammability rating. | Burns only if pre-heated. (1) |
| ACA HMIS Physical hazard rating. | Normally stable. (0) |
| ACA HMIS Personal protection rating. | N/A. |

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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.