SAFETY DATA SHEET
Tergo™ Chlorine-Free Cleaning Fluid - Boil

1. Identification

Product identifier

Product name  Tergo™ Chlorine-Free Cleaning Fluid - Boil
Product number  MCC-TCFCF01EUP
Synonyms; trade names  M2S-TCFCF01EUP

Recommended use of the chemical and restrictions on use

Application  Cleaning agent.
Uses advised against  No specific uses advised against are identified.

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: +1 800 638 0125, +1 860-827-0626
Fax: +1 860-893-1930
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

OSHA Regulatory Status  This Product is Hazardous under the OSHA Hazard Communication Standard.
Physical hazards  Not Classified
Health hazards  Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Repr. 1B - H360 STOT SE 3 - H335, H336
Environmental hazards  Aquatic Acute 2 - H401 Aquatic Chronic 3 - H412
Label elements
**Tergo™ Chlorine-Free Cleaning Fluid - Boil**

### Pictogram

- ![Danger Pictogram](image1)
- ![Signal Word Pictogram](image2)
- ![Supplemental Label Pictogram](image3)

### Signal word

**Danger**

### Hazard statements

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H360 May damage fertility or the unborn child.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H401 Toxic to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

### Precautionary statements

- P261 Avoid breathing vapor/ spray.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
- 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.

### Supplemental label information

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

### Contains

Proprietary Fluorocarbon, Proprietary A, Proprietary B, Proprietary C, METHANOL

### 3. Composition/Information on ingredients

#### Mixtures

<table>
<thead>
<tr>
<th>Proprietary Fluorocarbon</th>
<th>30-60%</th>
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<tr>
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<table>
<thead>
<tr>
<th>Classification</th>
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<tbody>
<tr>
<td>Eye Irrit. 2A - H319</td>
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<tr>
<td>STOT SE 3 - H336</td>
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</table>

<table>
<thead>
<tr>
<th>Proprietary A</th>
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<tbody>
<tr>
<td>30-60%</td>
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</table>

| CAS number: Proprietary  |        |

<table>
<thead>
<tr>
<th>Classification</th>
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<tbody>
<tr>
<td>Acute Tox. 4 - H302</td>
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<tr>
<td>Acute Tox. 4 - H312</td>
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<tr>
<td>Skin Irrit. 2 - H315</td>
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<td>Eye Irrit. 2A - H319</td>
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<tr>
<td>STOT SE 3 - H335</td>
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<tr>
<td>Aquatic Acute 2 - H401</td>
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<td>Aquatic Chronic 3 - H412</td>
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</table>
# Tergo™ Chlorine-Free Cleaning Fluid - Boil

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
<th>CAS Number</th>
<th>Classification</th>
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<tbody>
<tr>
<td>Proprietary B</td>
<td>1-5%</td>
<td>Proprietary</td>
<td>Acute Tox. 4 - H302, Acute Tox. 4 - H332</td>
</tr>
<tr>
<td>Proprietary C</td>
<td>1-5%</td>
<td>Proprietary</td>
<td>Skin Corr. 1C - H314, Eye Dam. 1 - H318</td>
</tr>
<tr>
<td>ETHANOL</td>
<td>1-5%</td>
<td>64-17-5</td>
<td>Flam. Liq. 2 - H225</td>
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<tr>
<td>METHANOL</td>
<td>&lt;1%</td>
<td>67-56-1</td>
<td>Flam. Liq. 2 - H225, Acute Tox. 3 - H301, Acute Tox. 3 - H311, Acute Tox. 3 - H331, Eye Irrit. 2A - H319, Rep. 1B - H360, STOT SE 1 - H370</td>
</tr>
<tr>
<td>ISOBUTYL METHYL KETONE</td>
<td>&lt;1%</td>
<td>108-10-1</td>
<td>Flam. Liq. 2 - H225, Acute Tox. 4 - H332, Eye Irrit. 2A - H319, STOT SE 3 - H335</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>&lt;1%</td>
<td>141-78-6</td>
<td>Flam. Liq. 2 - H225, Eye Irrit. 2A - H319, STOT SE 3 - H336</td>
</tr>
</tbody>
</table>
Tergo™ Chlorine-Free Cleaning Fluid - Boil

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

**Ingredient notes**
Denaturants in Ethanol include Methanol, CAS# 67-56-1; MIBK, CAS# 108-10-1 and Ethyl acetate, CAS# 141-78-6

**Composition**

### 4. First-aid measures

**Description of first aid measures**

**General information**
Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.

**Inhalation**
Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention. Place unconscious person on their side in the recovery position and ensure breathing can take place.

**Ingestion**
Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Keep affected person under observation. Get medical attention if symptoms are severe or persist.

**Skin Contact**
Rinse with water.

**Eye contact**
Rinse immediately with plenty of water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

**Protection of first aiders**
First aid personnel should wear appropriate protective equipment during any rescue.

**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**
A single exposure may cause the following adverse effects: Irritation of nose, throat and airway. Difficulty in breathing. Coughing. Vapors may cause headache, fatigue, dizziness and nausea. Central nervous system depression.

**Ingestion**
May cause discomfort if swallowed. Stomach pain. Nausea, vomiting.

**Skin contact**
Redness. Irritating to skin.

**Eye contact**
Causes serious eye damage. Symptoms following overexposure may include the following:

- Pain. Profuse watering of the eyes. Redness.

**Indication of immediate medical attention and special treatment needed**

**Notes for the doctor**
Treat symptomatically.

### 5. Fire-fighting measures

**Extinguishing media**

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

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.
Tergo™ Chlorine-Free Cleaning Fluid - Boil

Special hazards arising from the substance or mixture

Flammability Class
The product is not flammable. Tag closed cup.

Specific hazards
Containers can burst violently or explode when heated, due to excessive pressure build-up. This product is toxic.

Hazardous combustion products
Thermal decomposition or combustion products may include the following substances: Toxic gases or vapors.

Advice for firefighters

Protective actions during firefighting
Avoid breathing fire gases or vapors. Evacuate area. Keep upwind to avoid inhalation of gases, vapors, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Avoid inhalation of vapors and spray/mists. Use suitable respiratory protection if ventilation is inadequate.

Environmental precautions

Environmental precautions
Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.

Methods and material for containment and cleaning up

Methods for cleaning up
Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Provide adequate ventilation. Small Spillages: Collect spillage. Large Spillages: Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. For waste disposal, see Section 13.

Reference to other sections
For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling
**Tergo™ Chlorine-Free Cleaning Fluid - Boil**

**Usage precautions**
Read and follow manufacturer’s recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists. May damage fertility. May damage the unborn child. Pregnant or breastfeeding women should not work with this product if there is any risk of exposure. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

**Advice on general occupational hygiene**
Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

**Conditions for safe storage, including any incompatibilities**

**Storage precautions**
Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.

**Storage class**
Miscellaneous hazardous material storage.

**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**

**Proprietary B**

Long-term exposure limit (8-hour TWA): 10 ppm 44.2 mg/m³

**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

**METHANOL**

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 262 mg/m³
Short-term exposure limit (15-minute): ACGIH 250 ppm 328 mg/m³
Sk

Long-term exposure limit (8-hour TWA): OSHA 200 ppm 260 mg/m³

**ISOBUTYL METHYL KETONE**

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 82 mg/m³
Short-term exposure limit (15-minute): ACGIH 75 ppm 307 mg/m³
A3

Long-term exposure limit (8-hour TWA): OSHA 100 ppm 410 mg/m³

**ETHYL ACETATE**

Long-term exposure limit (8-hour TWA): ACGIH 400 ppm 1440 mg/m³
Long-term exposure limit (8-hour TWA): OSHA 400 ppm 1400 mg/m³

ACGIH = American Conference of Governmental Industrial Hygienists.
A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.
Sk = Danger of cutaneous absorption.

**Additional Occupational Exposure Limits**
**Tergo™ Chlorine-Free Cleaning Fluid - Boil**

**ETHANOL (CAS: 64-17-5)**

**Ingredient comments**

WEL = Workplace Exposure Limits

**METHANOL (CAS: 67-56-1)**

**Biological limit values**

15 mg/l

**Exposure controls**

**Protective equipment**

Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Ensure the ventilation system is regularly maintained and tested. Good general ventilation should be adequate to control worker exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients.

**Eye/face protection**

Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

**Hand protection**

Wear protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

**Other skin and body protection**

Wear appropriate clothing to prevent any possibility of skin contact.

**Hygiene measures**

Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

**Respiratory protection**

Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.

**Environmental exposure controls**

Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**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.
**Tergo™ Chlorine-Free Cleaning Fluid - Boil**

**Melting point**
No information available.

**Initial boiling point and range**
297°C/>567°F

**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**
0.0025 mm Hg @ 20°C

**Vapor density**
No information available.

**Relative density**
0.898 g/cc @ 25°C

**Bulk density**
Not determined.

**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.

**Volatile**
No information available.

**Saturation concentration**
No information available.

**Critical temperature**
No information available.

### 10. Stability and reactivity

**Reactivity**
See the other subsections of this section for further details.

**Stability**
Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

**Possibility of hazardous reactions**
No potentially hazardous reactions known.

**Conditions to avoid**
There are no known conditions that are likely to result in a hazardous situation.

**Materials to avoid**
No specific material or group of materials is likely to react with the product to produce a hazardous situation.
Tergo™ Chlorine-Free Cleaning Fluid - Boil

Hazardous decomposition products
Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Toxic gases or vapors.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral
Notes (oral LD₅₀) Acute Tox. 4 - H302 Harmful if swallowed.
ATE oral (mg/kg) 1,158.28

Acute toxicity - dermal
Notes (dermal LD₅₀) Based on available data the classification criteria are not met.
ATE dermal (mg/kg) 4,628.74

Acute toxicity - inhalation
Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.
ATE inhalation (vapours mg/l) 250.59
ATE Inhalation (dusts/mists mg/l) 470.59

Skin corrosion/irritation
Animal data Irritating.

Serious eye damage/irritation
Serious eye damage/irritation Eye Dam. 1 - H318 Causes serious eye damage.

Respiratory sensitization
Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization
Skin sensitization Based on available data the classification criteria are not met.

Germ cell mutagenicity
Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity
Carcinogenicity Based on available data the classification criteria are not met.
IARC carcinogenicity Contains a substance/a group of substances which may cause cancer. IARC Group 1 Carcinogenic to humans.

Reproductive toxicity
Reproductive toxicity - fertility May damage fertility.
Reproductive toxicity - development May damage the unborn child.

Specific target organ toxicity - single exposure
STOT - single exposure STOT SE 3 - H335, H336 May cause respiratory irritation. May cause drowsiness or dizziness.
Target organs Respiratory system, lungs Central nervous system

Specific target organ toxicity - repeated exposure
STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard
Tergo™ Chlorine-Free Cleaning Fluid - Boil

Aspiration hazard  Based on available data the classification criteria are not met.

General information  Avoid contact during pregnancy/while nursing. May damage fertility. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation  A single exposure may cause the following adverse effects: Irritation of nose, throat and airway. Difficulty in breathing. Coughing. Vapors may cause headache, fatigue, dizziness and nausea. Central nervous system depression.

Ingestion  May cause discomfort if swallowed. Stomach pain. Nausea, vomiting.

Skin Contact  Redness. Irritating to skin.

Eye contact  Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

Route of exposure  Ingestion Inhalation Skin and/or eye contact

Target Organs  Central nervous system Respiratory system, lungs

Toxicological information on Ingredients.

<table>
<thead>
<tr>
<th>Toxicological information</th>
<th>Proprietary Fluorocarbon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - oral</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity oral (\text{LD}_{50}) mg/kg</td>
<td>2,001.0</td>
</tr>
<tr>
<td>Species: Rat</td>
<td></td>
</tr>
<tr>
<td>Notes: Based on available data the classification criteria are not met.</td>
<td></td>
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<tr>
<td>ATE oral (mg/kg)</td>
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<tr>
<td>Acute toxicity - dermal</td>
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<tr>
<td>Acute toxicity dermal (\text{LD}_{50}) mg/kg</td>
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<tr>
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<tr>
<td>ATE dermal (mg/kg)</td>
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<tr>
<td>Acute toxicity - inhalation</td>
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</tr>
<tr>
<td>Acute toxicity inhalation (\text{LC}_{50}) vapours mg/l</td>
<td>24.8</td>
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<tr>
<td>Species: Rat</td>
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<tr>
<td>Notes: Based on available data the classification criteria are not met.</td>
<td></td>
</tr>
<tr>
<td>ATE inhalation (vapours mg/l)</td>
<td>24.8</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td></td>
</tr>
<tr>
<td>Animal data</td>
<td>Based on available data the classification criteria are not met.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Causes serious eye irritation.</td>
</tr>
</tbody>
</table>
Tergo™ Chlorine-Free Cleaning Fluid - Boil

Respiratory sensitization
Based on available data the classification criteria are not met.

Skin sensitization
Based on available data the classification criteria are not met.

Germ cell mutagenicity
Based on available data the classification criteria are not met.

Genotoxicity - in vitro
Based on available data the classification criteria are not met.

Carcinogenicity
Based on available data the classification criteria are not met.

IARC carcinogenicity
None of the ingredients are listed or exempt.

Reproductive toxicity
Based on available data the classification criteria are not met.

Reproductive toxicity - fertility
Based on available data the classification criteria are not met.

Reproductive toxicity - development
Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure
STOT - single exposure
STOT SE 3 - H336 May cause drowsiness or dizziness.

Target organs
Central nervous system

Specific target organ toxicity - repeated exposure
STOT - repeated exposure
Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard
Based on available data the classification criteria are not met.

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

Inhalation
A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.

Ingestion
No specific symptoms known.

Skin Contact
No specific symptoms known.

Eye contact
Irritating to eyes.

Route of exposure
Ingestion Inhalation Skin and/or eye contact

Target Organs
Central nervous system

Proprietary A

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)
550.0

Species
Rat

ATE oral (mg/kg)
550.0
Tergo™ Chlorine-Free Cleaning Fluid - Boil

**Acute toxicity - dermal**

<table>
<thead>
<tr>
<th>Species</th>
<th>Acute toxicity dermal (LD₅₀ mg/kg)</th>
<th>ATE dermal (mg/kg)</th>
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</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>2,000.0</td>
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</table>

**Acute toxicity - inhalation**

<table>
<thead>
<tr>
<th>Species</th>
<th>Acute toxicity inhalation (LC₅₀ vapours mg/l)</th>
<th>ATE inhalation (vapours mg/l)</th>
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</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>3,551.0</td>
<td>3,551.0</td>
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</table>

Proprietary B

**Acute toxicity - oral**

<table>
<thead>
<tr>
<th>ATE oral (mg/kg)</th>
<th>500.0</th>
</tr>
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</table>

**Acute toxicity - inhalation**

<table>
<thead>
<tr>
<th>ATE inhalation (vapours mg/l)</th>
<th>11.0</th>
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</thead>
</table>

**ETHANOL**

**Acute toxicity - inhalation**

<table>
<thead>
<tr>
<th>Acute toxicity inhalation (LC₅₀ vapours mg/l)</th>
<th>ATE inhalation (vapours mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000.0</td>
<td>20,000.0</td>
</tr>
</tbody>
</table>

**Carcinogenicity**

<table>
<thead>
<tr>
<th>IARC carcinogenicity</th>
<th>IARC Group 1 Carcinogenic to humans.</th>
</tr>
</thead>
</table>

**METANOL**

**Acute toxicity - oral**

<table>
<thead>
<tr>
<th>Notes (oral LD₅₀)</th>
<th>Acute Tox. 3 - H301 Toxic if swallowed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE oral (mg/kg)</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Acute toxicity - dermal**

<table>
<thead>
<tr>
<th>Notes (dermal LD₅₀)</th>
<th>Acute Tox. 3 - H311 Toxic in contact with skin.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE dermal (mg/kg)</td>
<td>300.0</td>
</tr>
</tbody>
</table>

**Acute toxicity - inhalation**

<table>
<thead>
<tr>
<th>Notes (inhalation LC₅₀)</th>
<th>Acute Tox. 3 - H331 Toxic if inhaled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE inhalation (vapours mg/l)</td>
<td>3.0</td>
</tr>
</tbody>
</table>
**Tergo™ Chlorine-Free Cleaning Fluid - Boil**

- **ATE inhalation** (dusts/mists mg/l)
  - 0.5

- **Skin corrosion/irritation**

  - **Animal data**
    - Based on available data the classification criteria are not met.

  - **Serious eye damage/irritation**
    - Based on available data the classification criteria are not met.

  - **Respiratory sensitization**
    - Based on available data the classification criteria are not met.

  - **Respiratory sensitization**
    - Based on available data the classification criteria are not met.

- **Skin sensitization**

  - Based on available data the classification criteria are not met.

- **Germ cell mutagenicity**

  - Based on available data the classification criteria are not met.

- **Genotoxicity - in vitro**

  - Based on available data the classification criteria are not met.

- **Carcinogenicity**

  - Based on available data the classification criteria are not met.

- **IARC carcinogenicity**

  - None of the ingredients are listed or exempt.

- **Reproductive toxicity**

  - Based on available data the classification criteria are not met.

  - **Reproductive toxicity - fertility**
    - Not classified as a specific target organ toxicant after repeated exposure.

  - **Reproductive toxicity - development**
    - Based on available data the classification criteria are not met.

- **Specific target organ toxicity - single exposure**

  - **STOT - single exposure**
    - STOT SE 1 - H370 Causes damage to organs.

- **Specific target organ toxicity - repeated exposure**

  - **STOT - repeated exposure**
    - Not classified as a specific target organ toxicant after repeated exposure.

- **Aspiration hazard**

  - Based on available data the classification criteria are not met.

- **General information**

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

- **Inhalation**

  - A single exposure may cause the following adverse effects: Drowsiness, dizziness, disorientation, vertigo. Unconsciousness. High concentrations may be fatal.

- **Ingestion**

  - May cause stomach pain or vomiting. May cause severe internal injury.

- **Skin Contact**

  - A single exposure may cause the following adverse effects: Pain.

- **Eye contact**

  - No specific symptoms known.

- **Route of exposure**

  - Ingestion Inhalation Skin and/or eye contact

- **Target Organs**

  - No specific target organs known.

**ISOBUTYL METHYL KETONE**
Tergo™ Chlorine-Free Cleaning Fluid - Boil

**Acute toxicity - inhalation**

ATE inhalation (vapours mg/l) 11.0

ATE inhalation (dusts/mists mg/l) 1.5

**Carcinogenicity**

IARC carcinogenicity: IARC Group 2B Possibly carcinogenic to humans.

### 12. Ecological information

**Proprietary Fluorocarbon**

Ecotoxicity: Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

**METHANOL**

Ecotoxicity: Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Toxicity: Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.

**Proprietary Fluorocarbon**

Toxicity: Based on available data the classification criteria are not met.

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

**Proprietary A**

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

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

**ETHANOL**

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

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

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

**METHANOL**

Toxicity: Based on available data the classification criteria are not met.
Tergo™ Chlorine-Free Cleaning Fluid - Boil

Acute aquatic toxicity
Acute toxicity - fish $LC_{50}$, 96 hours: $>100$ mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates $EC_{50}$, 48 hours: $>10000$ mg/l, Daphnia magna

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

Ecological information on ingredients.

**Proprietary Fluorocarbon**
Persistence and degradability
The degradability of the product is not known.

**ETHANOL**
Persistence and degradability
The product is expected to be biodegradable.

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

Bioaccumulative potential
Bio-Accumulative Potential No data available on bioaccumulation.
Partition coefficient No information available.

Ecological information on ingredients.

**Proprietary Fluorocarbon**
Bio-Accumulative Potential No data available on bioaccumulation.
Partition coefficient $log$ Pow: 2.18

**Proprietary A**
Partition coefficient No information available.

**Proprietary B**
Partition coefficient $log$ Pow: 1.05

**ETHANOL**
Bio-Accumulative Potential Bioaccumulation is unlikely.
Partition coefficient No information available.

**METHANOL**
Bio-Accumulative Potential No data available on bioaccumulation.
Partition coefficient $: -0.77$
Tergo™ Chlorine-Free Cleaning Fluid - Boil

Mobility in soil
Mobility No data available.

Ecological information on ingredients.

Proprietary Fluorocarbon
Mobility No data available.

ETHANOL
Mobility The product is soluble in water.

METHANOL
Mobility No data available.

Other adverse effects
Other adverse effects None known.

Ecological information on ingredients.

Proprietary Fluorocarbon
Other adverse effects None known.

METHANOL
Other adverse effects None known.

13. Disposal considerations

Waste treatment methods
General information The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

14. Transport information

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

UN Number
UN No. (International) Not applicable.
UN No. (DOT) Not applicable.
UN proper shipping name
Tergo™ Chlorine-Free Cleaning Fluid - Boil

Proper shipping name
(International) Not applicable.

Proper shipping name (DOT) Not applicable.

Transport hazard class(es)

Transport Labels No transport warning sign required.
(International)

DOT transport labels No transport warning sign required.

Packing group

Packing group (International) Not applicable.

DOT packing group Not applicable.

Environmental hazards

Environmentally Hazardous Substance No.

Special precautions for user

Not applicable.

DOT reportable quantity Not applicable.

DOT TIH Zone Not applicable.

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 None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA) The following ingredients are listed or exempt:

ETHYL ACETATE
Final CERCLA RQ: 5000(2270) pounds (Kilograms)

ISOBUTYL METHYL KETONE
Final CERCLA RQ: 5000(2270) pounds (Kilograms)

METHANOL
Final CERCLA RQ: 5000(2270) pounds (Kilograms)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities None of the ingredients are listed or exempt.

SARA 313 Emission Reporting The following ingredients are listed or exempt:

ISOBUTYL METHYL KETONE
1.0 %
Tergo™ Chlorine-Free Cleaning Fluid - Boil

METHANOL
1.0 %

CAA Accidental Release Prevention
None of the ingredients are listed or exempt.

FDA - Essential Chemical
None of the ingredients are listed or exempt.

FDA - Precursor Chemical
None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories
The following ingredients are listed or exempt:
Proprietary B
Acute
Chronic
Proprietary A
Acute

OSHA - Highly Hazardous Chemicals
None of the ingredients are listed or exempt.

US State Regulations
California Proposition 65 Carcinogens and Reproductive Toxins
The following ingredients are listed or exempt:
ISOBUTYL METHYL KETONE
Carcinogen and developmental toxin.
METHANOL
Developmental toxin.

California Air Toxics "Hot Spots" (A-I)
The following ingredients are listed or exempt:
ISOBUTYL METHYL KETONE
METHANOL

California Air Toxics "Hot Spots" (A-II)
None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances
The following ingredients are listed or exempt:
ETHYL ACETATE
ISOBUTYL METHYL KETONE
ETHANOL
METHANOL

Massachusetts "Right To Know" List
The following ingredients are listed or exempt:
ETHYL ACETATE
ISOBUTYL METHYL KETONE
ETHANOL
Tergo™ Chlorine-Free Cleaning Fluid - Boil

METHANOL
Proprietary B

Rhode Island "Right To Know" List
The following ingredients are listed or exempt:

ETHYL ACETATE
ISOBUTYL METHYL KETONE
ETHANOL
METHANOL

Minnesota "Right To Know" List
The following ingredients are listed or exempt:

ETHYL ACETATE
ISOBUTYL METHYL KETONE
ETHANOL
METHANOL
Proprietary B

New Jersey "Right To Know" List
The following ingredients are listed or exempt:

ETHYL ACETATE
ISOBUTYL METHYL KETONE
ETHANOL
METHANOL

Pennsylvania "Right To Know" List
The following ingredients are listed or exempt:

ETHYL ACETATE
ISOBUTYL METHYL KETONE
ETHANOL
METHANOL
Proprietary B

Inventories
Canada - DSL/NDSL
DSL

US - TSCA
Present.

US - TSCA 12(b) Export Notification
The following ingredients are listed or exempt:

Proprietary Fluorocarbon

16. Other information
Tergo™ Chlorine-Free Cleaning Fluid - Boil

Classification abbreviations

Acute Tox. = Acute toxicity
Eye Dam. = Serious eye damage
Repr. = Reproductive toxicity
Skin Irrit. = Skin irritation
STOT SE = Specific target organ toxicity-single exposure
Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Training advice

Only trained personnel should use this material.

Revision date

11/20/2018

Revision

24

Supersedes date

11/8/2018

SDS No.

BULK - TCFCF01EU

SDS status

Approved.

Hazard statements in full

H225 Highly flammable liquid and vapor.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H360 May damage fertility or the unborn child.
H370 Causes damage to organs.
H401 Toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

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.