SAFETY DATA SHEET
Tergo Metal Cleaning Fluid

1. Identification

Product identifier
Product name Tergo Metal Cleaning Fluid
Product number MCC-TMCFEUP, MCC-TMCFEUGL, MCC-TMCFEUGG, MCC-TMCFEUD, MCC-TMCFEUG, MCC-TMCFEUHGG
Synonyms; trade names Prototype 10-122-2

Recommended use of the chemical and restrictions on use
Application Cleaning agent.

Details of the supplier of the safety data sheet
Supplier MICROCARE CORPORATION
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
Environmental hazards Aquatic Chronic 3 - H412

Human health See Section 11 for additional information on health hazards. May be slightly irritating to eyes. Splashes in the eyes may cause redness and irritation. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

Physicochemical Vapors are heavier than air and may travel along the floor and accumulate in the bottom of containers.

Label elements
Tergo Metal Cleaning Fluid

Pictogram

Signal word Warning

Hazard statements H302 Harmful if swallowed.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements 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.
P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
P302+P352 If on skin: Wash with plenty of water.
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 trans-DICHLOROETHYLENE

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

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>trans-DICHLOROETHYLENE</td>
<td>60-100%</td>
</tr>
<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Flam. Liq. 2 - H225</td>
<td></td>
</tr>
<tr>
<td>Acute Tox. 4 - H302</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 3 - H412</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary B</td>
<td>1-5%</td>
</tr>
<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 3 - H412</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary A</td>
<td>1-5%</td>
</tr>
<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 3 - H412</td>
<td></td>
</tr>
</tbody>
</table>

The full text for all hazard statements is 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.
# Tergo Metal Cleaning Fluid

## 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. Keep out of the reach of children.

**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.

**Ingestion**

Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. 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. Consult a physician for specific advice.

### 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.

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

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.

**Special hazards arising from the substance or mixture**

**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**

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Oxides of carbon.

**Advice for firefighters**

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. Provide adequate ventilation. Avoid inhalation of vapors. Use approved respirator if air contamination is above an acceptable level.

**Environmental precautions**

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

### Methods and material for containment and cleaning up
Tergo Metal Cleaning Fluid

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.

Reference to other sections
See Section 11 for additional information on health hazards.

7. Handling and storage

Precautions for safe handling

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

Conditions for safe storage, including any incompatibilities

Storage precautions
Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep out of the reach of children.

Specific end uses(s)

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

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

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits
trans-DICHLOROETHYLENE

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 793 mg/m³

Proprietary A
Long-term exposure limit (8-hour TWA): SUP 200 ppm

ACGIH = American Conference of Governmental Industrial Hygienists.

Additional Occupational Exposure Limits

Ingredient comments
ACGIH = US Standard. WEL = Workplace Exposure Limits

Exposure controls

Protective equipment

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.
Tergo Metal Cleaning Fluid

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
No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products. When using do not eat, drink or smoke.

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.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Water-white</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight. Ether</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available.</td>
</tr>
<tr>
<td>pH</td>
<td>No information available.</td>
</tr>
<tr>
<td>Melting point</td>
<td>No information available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>The product is not flammable. Tag Closed Cup (ASTM D 56)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available.</td>
</tr>
<tr>
<td>Evaporation factor</td>
<td>No information available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Lower flammable/explosive limit: 7 %(V) Upper flammable/explosive limit: 15.6 %(V)</td>
</tr>
<tr>
<td>Other flammability</td>
<td>No information available.</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No information available.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Slightly soluble in water.</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No information available.</td>
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<tr>
<td>Viscosity</td>
<td>No information available.</td>
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<tr>
<td>Explosive properties</td>
<td>No information available.</td>
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<tr>
<td>Refractive index</td>
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</tr>
<tr>
<td>Particle size</td>
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<tr>
<td>Molecular weight</td>
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</tr>
<tr>
<td>Saturation concentration</td>
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<tr>
<td>Critical temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Volatile organic compound</td>
<td>No information available.</td>
</tr>
<tr>
<td>Flammability</td>
<td>The product is not flammable.</td>
</tr>
</tbody>
</table>

10. Stability and reactivity
Tergo Metal Cleaning Fluid

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

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.

Hazardous decomposition products
Heating may generate the following products: Toxic and corrosive gases or vapors. Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO2). Carbon monoxide (CO).

11. Toxicological information

Information on toxicological effects

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

Acute toxicity - oral
ATE oral (mg/kg)
1,342.39

Inhalation
Vapors may irritate throat/respiratory system. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing. Headache. Dizziness.

Ingestion
Harmful if swallowed. Irritating. Symptoms following overexposure may include the following: Nausea, vomiting. Stomach pain.

Skin Contact
Liquid may irritate skin.

Eye contact
Irritating to eyes.

Route of entry
Skin and/or eye contact Ingestion. Inhalation

Target Organs
Eyes Respiratory system, lungs Skin

Medical Symptoms
Product has a defatting effect on skin. May cause allergic contact eczema. In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death.

Toxicological information on ingredients.

trans-DICHLOROETHYLENE

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

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)
1,235.0

Species
Rat

ATE oral (mg/kg)
1,235.0

Acute toxicity - dermal
Tergo Metal Cleaning Fluid

Acute toxicity dermal (LD$_{50}$ mg/kg) 5,000.0
Species Rabbit
ATE dermal (mg/kg) 5,000.0

Acute toxicity - inhalation
Acute toxicity inhalation (LC$_{50}$ vapours mg/l) 24,100.0
Species Rat
ATE inhalation (vapours mg/l) 24,100.0

Proprietary A

Acute toxicity - oral
Acute toxicity oral (LD$_{50}$ mg/kg) 5,000.0
Species Rat
ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal
Acute toxicity dermal (LD$_{50}$ mg/kg) 5,000.0
Species Rat
ATE dermal (mg/kg) 5,000.0

Acute toxicity - inhalation
Acute toxicity inhalation (LC$_{50}$ vapours mg/l) 140.0
Species Rat
ATE inhalation (vapours mg/l) 140.0

Skin corrosion/irritation
Animal data Not irritating. Rabbit
Human skin model test Data lacking.
Extreme pH Not applicable. Not corrosive to skin.

Serious eye damage/irritation
Serious eye damage/irritation Not irritating. Rabbit

Respiratory sensitization
Respiratory sensitization Data lacking.

Skin sensitization
Skin sensitization Not sensitizing. - Guinea pig: Not sensitizing.
Tergo Metal Cleaning Fluid

Germ cell mutagenicity
Genotoxicity - in vitro  This substance has no evidence of mutagenic properties.
Genotoxicity - in vivo  This substance has no evidence of mutagenic properties.
Carcinogenicity
Carcinogenicity  Does not contain any substances known to be carcinogenic.
IARC carcinogenicity  Not listed.
NTP carcinogenicity  Not listed.
OSHA Carcinogenicity  Not listed.
Reproductive toxicity
Reproductive toxicity - fertility  No evidence of reproductive toxicity in animal studies.

Skin Contact  Skin irritation should not occur when used as recommended. May cause defatting of the skin but is not an irritant.
Eye contact  May cause eye irritation.
Acute and chronic health hazards  There is no evidence that the product can cause cancer.

12. Ecological Information

Ecotoxicity
Ecotoxicity  There are no data on the ecotoxicity of this product.

Ecological information on ingredients.
trans-DICHLOROETHYLENE

Ecotoxicity  Low acute toxicity to aquatic organisms.

Proprietary A

Ecotoxicity  It is unlikely that the substance will dissolve in water in amounts big enough to have a toxic effect on fish and daphnies.

Toxicity  No data available.

Ecological information on ingredients.
trans-DICHLOROETHYLENE

Acute toxicity - fish  LC₅₀, 96 hours: 1350 mg/l, Fish
Acute toxicity - aquatic invertebrates  EC₅₀, 48 hours: 220 mg/l, Daphnia magna

Proprietary A

Acute toxicity - fish  LC₅₀, 96 hours: 13.9 mg/l, Onchorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates  LC₅₀, 48 hours: 11.7 mg/l, Daphnia magna
Tergo Metal Cleaning Fluid

Acute toxicity - aquatic plants
EC₅₀, 72 hours: >120 mg/l, Algae

Persistence and degradability
There are no data on the degradability of this product.

Ecological information on ingredients.

trans-DICHLOROETHYLENE

Persistence and degradability
No data available.

Proprietary A

Persistence and degradability
The product is not expected to be biodegradable.

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

Partition coefficient
No information available.

Ecological information on ingredients.

trans-DICHLOROETHYLENE

Bio-Accumulative Potential
Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Proprietary A

Bio-Accumulative Potential
Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Partition coefficient
Pow: 2.7

Mobility in soil
Mobility
The product contains volatile substances which may spread in the atmosphere.

Ecological information on ingredients.

trans-DICHLOROETHYLENE

Mobility
The product has poor water-solubility.

Other adverse effects
Other adverse effects
The product contains a substance or substances that will contribute to global warming (greenhouse effect). The product contains volatile organic compounds (VOCs) which have a photochemical ozone creation potential.

13. Disposal considerations

Waste treatment methods

General information
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.
Tergo Metal Cleaning Fluid

Waste class
No information available.

14. Transport information

General
Requirements for marking and labeling of package varies depending on mode of transport. If uncertain of proper markings and labeling, call MicroCare for assistance.

UN Number
UN No. (IMDG) Not classified as dangerous for transport.
UN No. (DOT) UN3082 (>2640 lbs), otherwise Not classified as hazardous.

UN proper shipping name
Proper shipping name (IMDG) Not classified as dangerous for transport.
Proper shipping name (DOT) DOT only - when shipped in packages with > 2640 lbs., use: UN3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Dichloroethylene), 9, PGIII RQ (Dichloroethylene)

Transport hazard class(es)
Not applicable. No information required.

Transport labels
No transport warning sign required.

Packing group
No information required. Not applicable.

Environmental hazards
Environmentally Hazardous Substance
No.

Transport in bulk according to
Annex II of MARPOL 73/78 and the IBC Code
No information required.

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)

trans-DICHLOROETHYLENE
Final CERCLA RQ: 1000(454) pounds (Kilograms)

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
None
Tergo Metal Cleaning Fluid

OSHA  Highly Hazardous Chemicals
Not listed.

US State Regulations
California Proposition 65 Carcinogens and Reproductive Toxins
Not listed.

California Air Toxics "Hot Spots" (A-I)
Not listed.

California Air Toxics "Hot Spots" (A-II)
Not listed.

California Directors List of Hazardous Substances
trans-DICHLOROETHYLENE
Present.

Massachusetts "Right To Know" List
trans-DICHLOROETHYLENE
Present.

Pennsylvania "Right To Know" List
trans-DICHLOROETHYLENE
Present.

Inventories
Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed.

16. Other information

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

Revision date  5/17/2017
Revision  48
Supersedes date  4/24/2017
SDS No.  BULK - TMCFEU
SDS status  Approved.
Hazard statements in full
H225 Highly flammable liquid and vapor.
H302 Harmful if swallowed.
H412 Harmful to aquatic life with long lasting effects.