SAFETY DATA SHEET

PFR POLAR FLUX REMOVER, Aerosol


1. Identification

Product identifier

Product name
PFR POLAR FLUX REMOVER, Aerosol

Product number
MCC-PFR10A, MCC-PFR10Y

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: + 1 800 638 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
Flam. Aerosol 1 - H222

Health hazards
Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Repr. 1B - H360 STOT SE 3 - H336 STOT RE 2 - H373 Asp. Tox. 1 - H304

Human health
Splashes in the eyes may cause redness and irritation. Keep out of the reach of children. See Section 11 for additional information on health hazards.

Physicochemical
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

Label elements

Pictogram

Signal word
Danger
Hazard statements

H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H361f Suspected of damaging fertility.
H360 May damage fertility or the unborn child.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H304 May be fatal if swallowed and enters airways.

Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
P261 Avoid breathing vapor/spray.
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.
P314 Get medical advice/attention if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
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.
RCH001b For use in industrial installations or professional treatment only.

Contains

ACETONE, HEXANE-norm, METHANOL

Other hazards

This product contains a substance classified as PBT.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>60-100%</td>
</tr>
<tr>
<td>HEXANE-norm</td>
<td>10-30%</td>
</tr>
</tbody>
</table>

Classification

ACETONE
CAS number: 67-64-1

Classification
Flam. Liq. 2 - H225
Eye Irrit. 2A - H319
STOT SE 3 - H336

HEXANE-norm
CAS number: 110-54-3

Classification
Flam. Liq. 2 - H225
Skin Irrit. 2 - H315
Repr. 2 - H361f
STOT SE 3 - H336
STOT RE 2 - H373
Asp. Tox. 1 - H304
Not relevant.
# PFR POLAR FLUX REMOVER, Aerosol

## Composition

<table>
<thead>
<tr>
<th>Product</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE</td>
<td>10-30%</td>
</tr>
<tr>
<td>CAS number: 29118-24-9</td>
<td></td>
</tr>
</tbody>
</table>

### Classification

- Press. Gas, Liquefied - H280

## METHANOL

<table>
<thead>
<tr>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

### Classification

- Flam. Liq. 2 - H225
- Acute Tox. 3 - H301
- Acute Tox. 3 - H311
- Acute Tox. 3 - H331
- Eye Irrit. 2A - H319
- Repr. 1B - H360
- STOT SE 1 - H370

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

### 4. First-aid measures

#### Description of first aid measures

**General information**

Promptly remove any clothing that becomes wet or contaminated. Move affected person to fresh air at once. Get medical attention if any discomfort continues.

#### 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

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

**Specific hazards**

Containers can burst violently or explode when heated, due to excessive pressure build-up. Oxides of carbon. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m3.

**Advice for firefighters**

**Special protective equipment for firefighters**

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

### 6. Accidental release measures

### 7. Handling and storage

#### Precautions for safe handling

**Usage precautions**

Keep away from heat, sparks and open flame. Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapors. Use approved respirator if air contamination is above an acceptable level. Keep out of the reach of children.

### 8. Exposure controls/Personal protection
PFR POLAR FLUX REMOVER, Aerosol

Control parameters

Occupational exposure limits

ACETONE
Long-term exposure limit (8-hour TWA): ACGIH 250 ppm 594 mg/m³
Short-term exposure limit (15-minute): ACGIH 500 ppm 1187 mg/m³
A4
Long-term exposure limit (8-hour TWA): OSHA 1000 ppm 2400 mg/m³

HEXANE-norm
Long-term exposure limit (8-hour TWA): OSHA 500 ppm 1800 mg/m³
Long-term exposure limit (8-hour TWA): ACGIH 50 ppm 176 mg/m³
Sk

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

ACGIH = American Conference of Governmental Industrial Hygienists.
OSHA = Occupational Safety and Health Administration.
A4 = Not Classifiable as a Human Carcinogen.
Sk = Danger of cutaneous absorption.

METHANOL (CAS: 67-56-1)

Biological limit values  15 mg/l

Exposure controls

Protective equipment

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.

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>Liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Clear liquid. Colorless.</td>
</tr>
<tr>
<td>Odor</td>
<td>Acetone.</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Flash point</td>
<td>~ -20°C/-4°F Method: Closed cup.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available.</td>
</tr>
<tr>
<td>Upper/lower flammability or</td>
<td>Not determined.</td>
</tr>
<tr>
<td>explosive limits</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>
**PFR POLAR FLUX REMOVER, Aerosol**

**Global Warming Potential (GWP)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>100%</td>
</tr>
<tr>
<td>Volatile organic compound</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

**10. Stability and reactivity**

<table>
<thead>
<tr>
<th>Hazardous decomposition products</th>
<th>Description</th>
</tr>
</thead>
</table>

**11. Toxicological information**

**Information on toxicological effects**

<table>
<thead>
<tr>
<th>Acute toxicity - oral</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE oral (mg/kg)</td>
<td>12,345.68</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute toxicity - dermal</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE dermal (mg/kg)</td>
<td>37,037.04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute toxicity - inhalation</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE inhalation (vapours mg/l)</td>
<td>370.37</td>
</tr>
<tr>
<td>ATE inhalation (dusts/mists mg/l)</td>
<td>61.73</td>
</tr>
</tbody>
</table>

**Toxicological information on ingredients.**

**ACETONE**

<table>
<thead>
<tr>
<th>Acute toxicity - Inhalation</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity inhalation (LC₅₀ vapours mg/l)</td>
<td>50,100.0</td>
</tr>
<tr>
<td>ATE inhalation (vapours mg/l)</td>
<td>50,100.0</td>
</tr>
</tbody>
</table>

**METHANOL**

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

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

<table>
<thead>
<tr>
<th>Acute toxicity - inhalation</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes (inhalation LC₅₀)</td>
<td>Acute Tox. 3 - H331 Toxic if inhaled.</td>
</tr>
<tr>
<td>ATE inhalation (vapours mg/l)</td>
<td>3.0</td>
</tr>
<tr>
<td>ATE inhalation (dusts/mists mg/l)</td>
<td>0.5</td>
</tr>
</tbody>
</table>
PFR POLAR FLUX REMOVER, Aerosol

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.

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.

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.

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 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.

12. Ecological information

Ecological information on ingredients.

METHANOL
PFR POLAR FLUX REMOVER, Aerosol

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

Ecological information on ingredients.

METHANOL

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

Acute aquatic toxicity
LC₅₀, 96 hours: >100 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - fish
EC₅₀, 48 hours: >10000 mg/l, Daphnia magna

Persistence and degradability

ACETONE

Persistence and degradability
The product is readily biodegradable.

METHANOL

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

Bioaccumulative potential

ACETONE

Bio-Accumulative Potential
No information available.

Partition coefficient
log Pow: -0.024

METHANOL

Bio-Accumulative Potential
No data available on bioaccumulation.

Partition coefficient
: -0.77

Mobility in soil

METHANOL

Mobility
No data available.

Other adverse effects

METHANOL

Other adverse effects
None known.

13. Disposal considerations

Waste treatment methods
# PFR POLAR FLUX REMOVER, Aerosol

## General Information

Reuse or recycle products wherever possible.

## 14. Transport Information

<table>
<thead>
<tr>
<th>UN Number</th>
<th>UN No. (TDG)</th>
<th>UN1950</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UN No. (IMDG)</td>
<td>UN1950</td>
</tr>
<tr>
<td></td>
<td>UN No. (ICAO)</td>
<td>UN1950</td>
</tr>
<tr>
<td></td>
<td>UN No. (DOT)</td>
<td>UN1950</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UN proper shipping name</th>
<th>UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name (IMDG)</td>
<td>UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY</td>
</tr>
<tr>
<td>Proper shipping name (ICAO)</td>
<td>UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transport hazard class(es)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG Class</td>
</tr>
<tr>
<td>ICAO class/division</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Packing group</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG Packing Group</td>
</tr>
<tr>
<td>IMDG packing group</td>
</tr>
<tr>
<td>ICAO packing group</td>
</tr>
<tr>
<td>DOT packing group</td>
</tr>
</tbody>
</table>

## Environmental Hazards

Environmentally Hazardous Substance

## Special Precautions for User

EmS F-D, S-U

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)**

**ACETONE**

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

**HEXANE-norm**

Final CERCLA RQ: 5000(2270) pounds (Kilograms)
PFR POLAR FLUX REMOVER, Aerosol

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

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
Not listed.

SARA 313 Emission Reporting

*HEXANE-norm*
1.0 %

*METHANOL*
1.0 %

CAA Accidental Release Prevention
Not listed.

SARA (311/312) Hazard Categories
Acute
Chronic
Fire

OSHA Highly Hazardous Chemicals
Not listed.

US State Regulations
California Proposition 65 Carcinogens and Reproductive Toxins

*METHANOL*
Developmental toxin.

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

*HEXANE-norm*
Present.

*METHANOL*
Present.

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

California Directors List of Hazardous Substances

*ACETONE*
Present.

*METHANOL*
Present.

Massachusetts "Right To Know" List

*ACETONE*
Present.

*HEXANE-norm*
Present.

*METHANOL*
Present.
PFR POLAR FLUX REMOVER, Aerosol

Rhode Island "Right To Know" List

ACETONE
Present.

HEXANE-norm
Present.

METHANOL
Present.

Minnesota "Right To Know" List

ACETONE
Present.

HEXANE-norm
Present.

METHANOL
Present.

New Jersey "Right To Know" List

ACETONE
Present.

HEXANE-norm
Present.

METHANOL
Present.

Pennsylvania "Right To Know" List

ACETONE
Present.

HEXANE-norm
Present.

METHANOL
Present.

Inventories

Canada - DSL/NDSL
Yes

US - TSCA
Yes

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

16. Other information

Revision comments

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

Revision date 12/6/2019

Revision 35

Supersedes date 12/6/2019
PFR POLAR FLUX REMOVER, Aerosol

**SDS No.**

**AEROSOL - PFR**

**Hazard statements in full**

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