SAFETY DATA SHEET
UFR UNIVERSAL FLUX REMOVER, AEROSOL

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

1.1. Product identifier
Product name: UFR UNIVERSAL FLUX REMOVER, AEROSOL
Product number: MCC-UFR107

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Cleaning agent.

1.3. Details of the supplier of the safety data sheet
Supplier: MICROCARE EUROPE BVBA
VEKESTRAAT 29 B11
INDUSTRIEZONE ’T SAS
1910 KAMPENHOUT, Belgium
Phone: +32.2.251.95.05
Fax: +32.2.400.96.39
EuroSales@microcare.com

Manufacturer: MICROCARE U.K. LTD
SEVEN HILLS BUSINESS CENTRE
SOUTH STREET, MORLEY
LEEDS, WEST YORKSHIRE, UK LS27 8AT
Tel: +44 (0) 113 3609019
mcceurope@microcare.com

1.4. Emergency telephone number
Emergency telephone: INFOTRAC +44 330 027 0156 (UK)
1-352-323-3500 (from anywhere in the world)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (EC 1272/2008)
Physical hazards: Not Classified
Health hazards: Not Classified
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: Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Not considered to be a significant hazard due to the small quantities used. Gas or vapour displaces oxygen available for breathing (asphyxiating).
UFR UNIVERSAL FLUX REMOVER, AEROSOL

2.2. Label elements

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

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
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
Safety data sheet available on request. For use in industrial installations only.

Supplementary precautionary statements
P273 Avoid release to the environment.

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>trans-1-Chloro-3,3,3-trifluoropropene</td>
<td>60-100%</td>
</tr>
<tr>
<td>CAS number: 102687-65-0</td>
<td></td>
</tr>
<tr>
<td>Classification</td>
<td>Press. Gas (Liq.) - H280</td>
</tr>
<tr>
<td></td>
<td>Aquatic Chronic 3 - H412</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</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>
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</tr>
<tr>
<td>Classification</td>
<td>Press. Gas (Liq.) - H280</td>
</tr>
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<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>ETHANOL</td>
<td>1-5%</td>
</tr>
<tr>
<td>CAS number: 64-17-5</td>
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</tr>
<tr>
<td>Classification</td>
<td>Flam. Liq. 2 - H225</td>
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</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
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</thead>
<tbody>
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<td>METHANOL</td>
<td>&lt;1%</td>
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<tr>
<td>CAS number: 67-56-1</td>
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<tr>
<td>Classification</td>
<td>Flam. Liq. 2 - H225</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 3 - H301</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 3 - H311</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 3 - H331</td>
</tr>
<tr>
<td></td>
<td>STOT SE 1 - H370</td>
</tr>
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</table>
UFR UNIVERSAL FLUX REMOVER, AEROSOL

<table>
<thead>
<tr>
<th>4-methylpentan-2-one</th>
<th>&lt;1%</th>
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</thead>
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<tr>
<td>CAS number: 108-10-1</td>
<td>EC number: 203-550-1</td>
</tr>
<tr>
<td>Classification</td>
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</tr>
<tr>
<td></td>
<td>Acute Tox. 4 - H332</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2 - H319</td>
</tr>
<tr>
<td></td>
<td>STOT SE 3 - H335</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>ethyl acetate</th>
<th>&lt;1%</th>
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<tr>
<td>CAS number: 141-78-6</td>
<td>EC number: 205-500-4</td>
</tr>
<tr>
<td>Classification</td>
<td>Flam. Liq. 2 - H225</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2 - H319</td>
</tr>
<tr>
<td></td>
<td>STOT SE 3 - H336</td>
</tr>
</tbody>
</table>

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

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

Composition

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
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
Remove affected person from source of contamination. 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
Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Get medical attention.

Skin contact
Remove contaminated clothing and rinse skin thoroughly with water.

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.

4.2. Most important symptoms and effects, both acute and delayed

General information
The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Get medical attention promptly if symptoms occur after washing.

Inhalation
Upper respiratory irritation. Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Gas or vapour displaces oxygen available for breathing (asphyxiating). Une inhalation prolongée ou excessive peut irriter les voies respiratoires.

Ingestion
May cause stomach pain or vomiting, Diarrhoea. May cause nausea, headache, dizziness and intoxication. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
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Skin contact  Skin irritation. This product is rapidly absorbed through the skin and may cause symptoms similar to those of ingestion.

Eye contact  Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. May cause blurred vision and serious eye damage.

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

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

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media  The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

5.2. 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 vapours. Aerosol containers can explode when heated, due to excessive pressure build-up.

Hazardous combustion products  Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Fire or high temperatures create: Carbonyl compounds. Mineral acids.

5.3. Advice for firefighters
Protective actions during firefighting  Move containers from fire area if it can be done without risk. Bursting aerosol containers may be propelled from a fire at high speed.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Personal precautions  Warn everybody of potential hazards and evacuate if necessary. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level.

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

6.3. Methods and material for containment and cleaning up
Methods for cleaning up  Provide adequate ventilation. Contain spillage with sand, earth or other suitable non-combustible material. Avoid the spillage or runoff entering drains, sewers or watercourses. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely.

6.4. Reference to other sections
Reference to other sections  For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
UFR UNIVERSAL FLUX REMOVER, AEROSOL

Usage precautions
Provide adequate ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes. Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapours. Keep out of the reach of children.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.

7.3. Specific end use(s)
Specific end use(s) The identified uses for this product are detailed in Section 1.2.

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

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters
Occupational exposure limits
trans-1-Chloro-3,3,3-trifluoropropene
Long-term exposure limit (8-hour TWA): 800 ppm

ETHANOL
Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³

METHANOL
Long-term exposure limit (8-hour TWA): WEL 200 ppm 266 mg/m³
Short-term exposure limit (15-minute): WEL 250 ppm 333 mg/m³
Sk

4-methylpentan-2-one
Long-term exposure limit (8-hour TWA): WEL 50 ppm 208 mg/m³
Short-term exposure limit (15-minute): WEL 100 ppm 416 mg/m³
Sk

ethyl acetate
Long-term exposure limit (8-hour TWA): WEL 200 ppm
Short-term exposure limit (15-minute): WEL 400 ppm
WEL = Workplace Exposure Limit.
Sk = Can be absorbed through the skin.

Ingredient comments OES = Occupational Exposure Standard. SUP = Supplier’s recommendation.

trans-1-Chloro-3,3,3-trifluoropropene (CAS: 102687-65-0)

Ingredient comments No exposure limits known for ingredient(s).

DNEL Workers - Inhalation; Long term systemic effects: 1779 mg/m³

DMEL Consumer - Inhalation; Long term systemic effects: 379 mg/m³

8.2. Exposure controls
Protective equipment
Appropriate engineering controls No specific ventilation requirements. This product must not be handled in a confined space without adequate ventilation.
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Eye/face protection
Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber).

Other skin and body protection
Wear 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
Considering the size of the packaging, the risk is regarded as minimal. Vapours 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Aerosol. Liquid. Gas</td>
</tr>
<tr>
<td>Colour</td>
<td>Clear liquid. Colourless.</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No information available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>19°C/66°F @ 101.3 kPa</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable. The product is not flammable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>Evaporation factor</td>
<td>No information available.</td>
</tr>
<tr>
<td>Upper/lower flammability or</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>explosive limits</td>
<td></td>
</tr>
<tr>
<td>Other flammability</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>1.91 kPa @ 20°C</td>
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<tr>
<td>Vapour density</td>
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<tr>
<td>Relative density</td>
<td>1.24</td>
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<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>
</tr>
<tr>
<td>Viscosity</td>
<td>No information available.</td>
</tr>
</tbody>
</table>
UFR UNIVERSAL FLUX REMOVER, AEROSOL

Global Warming Potential (GWP)

Surface tension

9.2. Other information

Refractive index: No information available.

Particle size: No information available.

Molecular weight: No information available.

Volatile: 100%

Saturation concentration: No information available.

Critical temperature: No information available.

Volatile organic compound: This product contains a maximum VOC content of 59 g/litre.

Heat of vaporization (at boiling point), cal/g (Btu/lb)

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stability: Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions: Will not polymerise.

10.4. Conditions to avoid

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 vapours.

10.5. Incompatible materials

Materials to avoid: Alkali metals. Alkaline earth metals.

10.6. Hazardous decomposition products


SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Acute toxicity - oral

ATE oral (mg/kg) 50,384.18

Acute toxicity - dermal

ATE dermal (mg/kg) 151,152.54

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 1,511.53
UFR UNIVERSAL FLUX REMOVER, AEROSOL

ATE inhalation (dusts/mists mg/l) 251.92

Inhalation  Vapours 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 vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache. Fatigue. Nausea, vomiting.

Toxicological information on ingredients.

trans-1-Chloro-3,3,3-trifluoropropene

Acute toxicity - oral
Notes (oral LD₅₀)  No information available.

Acute toxicity - dermal
Notes (dermal LD₅₀)  No information required.

Acute toxicity - inhalation
Acute toxicity inhalation (LC₅₀ gases ppmV) 120,000.0
Species  Rat
ATE inhalation (gases ppm) 120,000.0

Inhalation  Vapours 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 vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache. Fatigue. Nausea, vomiting.

TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE

Acute toxicity - inhalation
Acute toxicity inhalation (LC₅₀ vapours mg/l) 965.0
Species  Rat
ATE inhalation (vapours mg/l) 965.0
# UFR UNIVERSAL FLUX REMOVER, AEROSOL

## ETHANOL

**Acute toxicity - inhalation**

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

## METHANOL

**Acute toxicity - oral**

<table>
<thead>
<tr>
<th>Description</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>
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**Acute toxicity - dermal**

<table>
<thead>
<tr>
<th>Description</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>
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**Acute toxicity - inhalation**

<table>
<thead>
<tr>
<th>Description</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>

**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 sensitisation: Based on available data the classification criteria are not met.
- Skin sensitisation: 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 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
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.

4-methylpentan-2-one

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

SECTION 12: Ecological information

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

Ecological information on ingredients.

trans-1-Chloro-3,3,3-trifluoropropene

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

METHANOL

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

12.1. Toxicity

Ecological information on ingredients.

trans-1-Chloro-3,3,3-trifluoropropene

Acute aquatic toxicity
Acute toxicity - fish
LC₅₀, 96 hours: 38 mg/l, Fish

Acute toxicity - aquatic invertebrates
EC₅₀, 48 hours: 82 mg/l, Freshwater invertebrates
# UFR UNIVERSAL FLUX REMOVER, AEROSOL

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute toxicity - aquatic plants</th>
<th>Acute aquatic toxicity</th>
<th>Acute toxicity - aquatic invertebrates</th>
<th>Acute toxicity - aquatic plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - aquatic plants</td>
<td>EC₅₀, 72 hours: 106.7 mg/l, Freshwater algae</td>
<td>NOEC, 72 hours: 115 mg/l, Freshwater algae</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute aquatic toxicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity - aquatic invertebrates</td>
<td></td>
<td></td>
<td>EC₅₀, 48 hours: &gt;160 mg/l, Daphnia magna</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity - aquatic plants</td>
<td></td>
<td></td>
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<td></td>
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</table>

**TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE**

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute aquatic toxicity</th>
<th>Acute toxicity - aquatic invertebrates</th>
<th>Acute toxicity - aquatic plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute aquatic toxicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity - aquatic invertebrates</td>
<td></td>
<td></td>
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<td></td>
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</table>

**ETHANOL**

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<th>Acute toxicity - aquatic plants</th>
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<tbody>
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<td></td>
<td></td>
</tr>
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<td></td>
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**METHANOL**

<table>
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<tr>
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<th>Acute toxicity - aquatic invertebrates</th>
<th>Acute toxicity - aquatic plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute aquatic toxicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity - aquatic invertebrates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity - aquatic plants</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## 12.2. Persistence and degradability

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

### Ecological information on ingredients.

**trans-1-Chloro-3,3,3-trifluoropropene**

<table>
<thead>
<tr>
<th>Component</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>The product is not readily biodegradable.</td>
</tr>
</tbody>
</table>

**TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE**

<table>
<thead>
<tr>
<th>Component</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>The product is not readily biodegradable.</td>
</tr>
</tbody>
</table>

**ETHANOL**

<table>
<thead>
<tr>
<th>Component</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>The product is expected to be biodegradable.</td>
</tr>
</tbody>
</table>

**METHANOL**

<table>
<thead>
<tr>
<th>Component</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>The degradability of the product is not known.</td>
</tr>
</tbody>
</table>

## 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.
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Partition coefficient

No information available.

Ecological information on ingredients.

**trans-1-Chloro-3,3,3-trifluoropropene**

- **Bioaccumulative potential**: No data available on bioaccumulation.
- **Partition coefficient**: Kow: 2.09

**ETHANOL**

- **Bioaccumulative potential**: Bioaccumulation is unlikely.
- **Partition coefficient**: No information available.

**METHANOL**

- **Bioaccumulative potential**: No data available on bioaccumulation.
- **Partition coefficient**: -0.77

12.4. Mobility in soil

**Mobility**

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

Ecological information on ingredients.

**trans-1-Chloro-3,3,3-trifluoropropene**

- **Mobility**: No data available.

**ETHANOL**

- **Mobility**: The product is soluble in water.

**METHANOL**

- **Mobility**: No data available.

12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment**

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

Ecological information on ingredients.

**trans-1-Chloro-3,3,3-trifluoropropene**

- **Results of PBT and vPvB assessment**: This product does not contain any substances classified as PBT or vPvB. No data available.

12.6. Other adverse effects

**Other adverse effects**

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

Ecological information on ingredients.

**trans-1-Chloro-3,3,3-trifluoropropene**

- **Other adverse effects**: None known.
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METHANOL

Other adverse effects
None known.

SECTION 13: Disposal considerations

13.1. 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. Empty containers must not be punctured or incinerated because of the risk of an explosion. Aerosol containers can explode when heated, due to excessive pressure build-up. Reuse or recycle products wherever possible.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1950
UN No. (IMDG) 1950
UN No. (ICAO) 1950
UN No. (ADN) 1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AEROSOLS
Proper shipping name (IMDG) AEROSOLS
Proper shipping name (ICAO) AEROSOLS
Proper shipping name (ADN) AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class 2.2
ADR/RID classification code 5A,5O
ADR/RID label 2.2
IMDG class 2.2
ICAO class/division 2.2
ADN class 2.2

Transport labels

14.4. Packing group

ADR/RID packing group None
IMDG packing group None
ICAO packing group None
ADN packing group None
14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user
EmS F-D, S-U
ADR transport category 3
Tunnel restriction code (E)

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

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Guidance Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37.

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

Inventories
US - TSCA Yes

SECTION 16: Other information

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date 01/06/2021
Revision 43
Supersedes date 21/05/2021
SDS number AEROSOL - UFR107
SDS status Approved.
UFR UNIVERSAL FLUX REMOVER, AEROSOL

Hazard statements in full

H225 Highly flammable liquid and vapour.
H280 Contains gas under pressure; may explode if heated.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H370 Causes damage to organs .
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.