



SAFETY DATA SHEET PW2 POWERCLEAN II SOLVENT, AEROSOL

According to Regulation (EU) No 453/2010
According to Regulation (EC) No 1907/2006

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name PW2 POWERCLEAN II SOLVENT, AEROSOL
Product No. #MCC-PW210A, #MCC-PW2101, #MCC-PW2105, #MCC-PW2106

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
Erasmuslaan 10
B-1804 Cargovil (Zemst)
Belgium
0032 2 251 95 05
0032 2 759 80 27
techsupport@microcare.com

Manufacturer MICROCARE CORPORATION
595 John Downey Drive
New Britain, CT 06051
United States of America
CAGE: OATV9
Tel: +1 860-827-0626
Fax: +1 860-827-8105
techsupport@microcare.com

1.4. Emergency telephone number

0032-2-251-95-05 (9 AM - 5 PM, Mon- Fri)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Acute Tox. 4 - H332
Environment	Aquatic Chronic 3 - H412

Classification (1999/45/EEC)

Xn;R20. R52/53.

Human health

Prolonged skin contact may cause redness, irritation and dry skin. Mild dermatitis, allergic skin rash.

Environment

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

Physical and Chemical Hazards

Vapours are heavier than air and may travel along the floor and in the bottom of containers. Considering the limited amount applied during use and the size of the container, the risk of adverse effects is considered small. Gas or vapour displaces oxygen available for breathing (asphyxiant).

2.2. Label elements

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Contains trans-DICHLOROETHYLENE

Label In Accordance With (EC) No. 1272/2008



Signal Word Warning

Hazard Statements

H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements

P501 Dispose of contents/container to ...

Supplementary Precautionary Statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.

2.3. Other hazards**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures**

1,1,1,2,3,4,4,5,5,5-decafluoropentane	10-30%
CAS-No.: 138495-42-8	EC No.: 420-640-8
Registration Number: 01-2119446695-28-0000	
Classification (EC 1272/2008) Aquatic Chronic 3 - H412	Classification (67/548/EEC) R52/53.
HFC-134a Tetrafluoroethane	10-30%
CAS-No.: 811-97-2	EC No.: 212-377-0
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.
trans-DICHLOROETHYLENE	60-90%
CAS-No.: 156-60-5	EC No.: 205-860-2
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Acute Tox. 4 - H332 Aquatic Chronic 3 - H412	Classification (67/548/EEC) F;R11 Xn;R20 R52/53

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES**4.1. Description of first aid measures**

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General information

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Place unconscious person on the side in the recovery position and ensure breathing can take place. Perform artificial respiration if breathing has stopped.

Inhalation

Move into fresh air and keep at rest. If respiratory problems, artificial respiration/oxygen.

Ingestion

Do not induce vomiting. Immediately rinse mouth and drink plenty of water (200-300 ml). Consult a physician for specific advice.

Skin contact

Remove contaminated clothes and rinse skin thoroughly with water.

Eye contact

Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing. 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 dependant of the concentration and the length of exposure.

Inhalation.

Vapours may cause headache, fatigue, dizziness and nausea. Difficulty in breathing. Upper respiratory irritation. Severe irritation in nose and throat.

Ingestion

May cause stomach pain or vomiting. Drowsiness, dizziness, disorientation, vertigo.

Skin contact

Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

Eye contact

Irritation of eyes and mucous membranes. Irritating and may cause redness and pain.

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

When heated, toxic and corrosive vapours/gases may be formed. In case of fire, toxic gases (CO, CO₂, NO_x) may be formed.

Unusual Fire & Explosion Hazards

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

Specific hazards

Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Move container from fire area if it can be done without risk. Water spray should be used to cool containers.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Warn everybody of potential hazards and evacuate if necessary. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

6.2. Environmental precautions

Contain spillages with sand, earth or any suitable adsorbent material. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Wear necessary protective equipment. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

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6.4. Reference to other sections

See section 11 for more detailed information on health effects and symptoms.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Provide good ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes. Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
trans-DICHLOROETHYLENE	ACGIH			200 ppm		

ACGIH = American Conference of Governmental Industrial Hygienists.

Ingredient Comments

ACGIH = US Standard.

8.2. Exposure controls

Protective equipment



Engineering measures

No specific ventilation requirements noted, except this product must not be used in a confined space without good ventilation.

Respiratory equipment

Vapours are heavier than air and may travel along the floor and in the bottom of containers. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used. Self-contained breathing apparatus with full facepiece.

Hand protection

For prolonged or repeated skin contact use suitable protective gloves.

Eye protection

Wear approved, tight fitting safety glasses where splashing is probable.

Other Protection

Wear suitable protective clothing as protection against splashing or contamination.

Hygiene measures

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. When using do not eat, drink or smoke.

Skin protection

Wear apron or protective clothing in case of splashes.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid. Aerosol.
Colour	Colourless.
Odour	Slight odour. Ether
Solubility	Slightly soluble in water.
Initial boiling point and boiling range	39 (C) / 102 (F)
Vapour density (air=1)	3.7

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Vapour pressure	415 mm Hg 20
Solubility Value (G/100G H ₂ O@20°C)	.3
Flammability Limit - Lower(%)	5.5
Flammability Limit - Upper(%)	13

Other Flammability

This product is not flammable.

9.2. Other information

Volatility Description	Volatile
Volatile By Vol. (%)	100
UDF Phrase 1	This product is not flammable.

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

Reaction with: Strong alkalis.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions**Hazardous Polymerisation**

Will not polymerise.

10.4. Conditions to avoid

Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed.

10.5. Incompatible materials**Materials To Avoid**

Alkali metals. Alkali earth metals. Powdered metal.

10.6. Hazardous decomposition products

When heated, toxic and corrosive vapours/gases may be formed. Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO₂). Carbon monoxide (CO).

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Inhalation**

Vapours may irritate the respiratory system and cause coughing, asthmatic breathing and breathlessness.

Ingestion

May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

Skin contact

Acts as a defatting agent on skin. May cause cracking of skin, and eczema.

Eye contact

May cause temporary eye irritation.

Medical Symptoms

High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

Name	trans-DICHLOROETHYLENE
Toxic Dose 1 - LD 50	1235 mg/kg (oral rat)
Toxic Dose 2 - LD 50	>5000 mg/kg (oral-rbt)
Toxic Conc. - LC 50	24100 ppm/4h (inh-rat)

Other Health Effects

This substance has no evidence of carcinogenic properties.

Name	HFC-134a Tetrafluoroethane
Toxic Dose 1 - LD 50	>2085 mg/kg (oral rat)

Other Health Effects

This substance has no evidence of carcinogenic properties.

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Name	1,1,1,2,3,4,4,5,5,5-decafluoropentane
Toxic Dose 1 - LD 50	>5,000 mg/kg (oral rat)
Toxic Conc. - LC 50	11,100 ppm/4h (inh-rat)

SECTION 12: ECOLOGICAL INFORMATION**Ecotoxicity**

Dangerous for the environment if discharged into watercourses.

12.1. Toxicity**12.2. Persistence and degradability****Degradability**

The product is not readily biodegradable.

12.3. Bioaccumulative potential**Bioaccumulative potential**

No data available on bioaccumulation.

12.4. Mobility in soil**Mobility:**

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

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

The product contains substances which contribute to global warming (greenhouse effect). The product contains a substance which has a photochemical ozone creation potential.

Name	trans-DICHLOROETHYLENE
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Ecotoxicity

Low acute toxicity to aquatic organisms.

LC 50, 96 Hrs, Fish mg/l	1350
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EC 50, 48 Hrs, Daphnia, mg/l	220
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Mobility

The product has poor water-solubility.

Bioaccumulative potential

Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

Degradability

No data available.

Name	HFC-134a Tetrafluoroethane
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LC 50, 96 Hrs, Fish mg/l	450
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EC 50, 48 Hrs, Daphnia, mg/l	980
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Name	1,1,1,2,3,4,4,5,5,5-decafluoropentane
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Ecotoxicity

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

LC 50, 96 Hrs, Fish mg/l	27.2
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IC 50, 72 Hrs, Algae, mg/l	120
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Bioaccumulative potential

Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

Degradability

The product is not expected to be biodegradable.

SECTION 13: DISPOSAL CONSIDERATIONS**General information**

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

PW2 POWERCLEAN II SOLVENT, AEROSOL**SECTION 14: TRANSPORT INFORMATION****14.1. UN number**

UN No. (ADR/RID/ADN)	UN1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950

14.2. UN proper shipping name

Proper Shipping Name	CONSUMER COMMODITY ORM-D
Proper Shipping Name	AEROSOLS

14.3. Transport hazard class(es)

ADR/RID/ADN Class	2.2
ADR Label No.	3
IMDG Class	2.2
ICAO Class/Division	2.2
ICAO Subsidiary risk	N/A
Transport Labels	

**14.4. Packing group**

IMDG Packing group	N/A
ICAO Packing group	N/A

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant
No.

14.6. Special precautions for user

Emergency Action Code	N/A
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14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable. No information required.

SECTION 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Approved Code Of Practice**

Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG(108).

EU Legislation

System of specific information relating to Dangerous Preparations. 2001/58/EC.

National Regulations

The Aerosol Dispensers (EEC Requirements)(Amendment) Regulations 1996 (S.I 1996 No. 2421).

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

PW2 POWERCLEAN II SOLVENT, AEROSOL**Revision Comments**

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

Revision Date 10/01/2012
Revision 4
Supersedes date 05/01/2011
Safety Data Sheet Status Approved.
Date 10 January 2012

Risk Phrases In Full

R20 Harmful by inhalation.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R11 Highly flammable

Hazard Statements In Full

H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.
H225 Highly flammable liquid and vapour.

Disclaimer

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.