



## MATERIAL SAFETY DATA SHEET PW2 POWERCLEAN II SOLVENT, AEROSOL

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

<b>PRODUCT NAME</b>	PW2 POWERCLEAN II SOLVENT, AEROSOL
<b>PRODUCT NO.</b>	#MCC-PW210A, #MCC-PW2101, #MCC-PW2105, #MCC-PW2106
<b>SUPPLIER</b>	MICROCARE CORPORATION 595 John Downey Drive New Britain, CT 06051 United States of America CAGE: OATV9 +1 860-827-0626 +1 860-827-8105 techsupport@microcare.com
<b>EMERGENCY TELEPHONE</b>	CHEMTREC (800) 424-9300
<b>IDENTIFICATION No.</b>	UN1950

### 2 HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

Colourless liquid. Slight odor. Ether. This product is not flammable. Avoid contact with eyes and prolonged skin contact. Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

#### 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

Vapors 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 vapor displaces oxygen available for breathing (asphyxiant).

#### HUMAN HEALTH

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

#### POTENTIAL HEALTH EFFECTS

##### INHALATION

Vapors 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 vapors may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content %
1,1,1,2,3,4,4,5,5,5-decafluoropentane	420-640-8	138495-42-8	10-30%
HFC-134a Tetrafluoroethane	212-377-0	811-97-2	10-30%
trans-DICHLOROETHYLENE	205-860-2	156-60-5	60-90%

### 4 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.

## 5 FIRE-FIGHTING MEASURES

### EXTINGUISHING MEDIA

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

### SPECIAL FIRE FIGHTING PROCEDURES

Move container from fire area if it can be done without risk.

### 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.

### PROTECTIVE MEASURES IN FIRE

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

FLAMMABILITY LIMIT - LOWER(%) 5.5

FLAMMABILITY LIMIT - UPPER(%) 13

### FLAMMABILITY CLASS

This product is not flammable.

## 6 ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

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

### ENVIRONMENTAL PRECAUTIONS

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

### SPILL CLEAN UP METHODS

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

## 7 HANDLING AND STORAGE

### HANDLING

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

### STORAGE

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

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### PROTECTIVE EQUIPMENT



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### ENGINEERING MEASURES

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

### RESPIRATORY EQUIPMENT

Vapors 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.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear liquid.
COLOR	Colourless.
ODOR	Slight odor. Ether
VOLATILITY DESCRIPTION	Volatile
SOLUBILITY	Slightly soluble in water.
Flammability	This product is not flammable.
BOILING POINT (°C)	39
VAPOR DENSITY (air=1)	3.7
VAPOR PRESSURE	415 mm Hg 20
VOLATILE BY VOL. (%)	100
SOLUBILITY VALUE (g/100g H2O@20°C)	.3

## 10 STABILITY AND REACTIVITY

### STABILITY

Stable under normal temperature conditions and recommended use.

### CONDITIONS TO AVOID

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

### HAZARDOUS POLYMERISATION

Will not polymerise.

### MATERIALS TO AVOID

Alkali metals. Alkali earth metals. Powdered metal.

### HAZARDOUS DECOMPOSITION PRODUCTS

When heated, toxic and corrosive vapors/gases may be formed. Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

## 11 TOXICOLOGICAL INFORMATION

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.

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<b>Name</b>	HFC-134a Tetrafluoroethane
<b>Toxic Dose 1 - LD 50</b>	>2085 mg/kg (oral rat)
<b>Other Health Effects</b>	This substance has no evidence of carcinogenic properties.
<b>Name</b>	1,1,1,2,3,4,4,5,5,5-decafluoropentane
<b>Toxic Dose 1 - LD 50</b>	>5,000 mg/kg (oral rat)
<b>Toxic Conc. - LC 50</b>	11,100 ppm/4h (inh-rat)

### 12 ECOLOGICAL INFORMATION

<b>Name</b>	trans-DICHLOROETHYLENE
<b>Ecotoxicity</b>	Low acute toxicity to aquatic organisms.
<b>LC 50, 96 Hrs, Fish mg/l</b>	1350
<b>EC 50, 48 Hrs, Daphnia, mg/l</b>	220
<b>Mobility</b>	The product has poor water-solubility.
<b>Bio-accumulative potential</b>	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.
<b>Degradability</b>	No data available.
<b>Name</b>	HFC-134a Tetrafluoroethane
<b>LC 50, 96 Hrs, Fish mg/l</b>	450
<b>EC 50, 48 Hrs, Daphnia, mg/l</b>	980
<b>Name</b>	1,1,1,2,3,4,4,5,5,5-decafluoropentane
<b>Ecotoxicity</b>	It is unlikely that the substance will dissolve in water in amounts big enough to have a toxic effect on fish and daphnies.
<b>LC 50, 96 Hrs, Fish mg/l</b>	27.2
<b>IC 50, 72 Hrs, Algae, mg/l</b>	120
<b>Bio-accumulative potential</b>	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.
<b>Degradability</b>	The product is not expected to be biodegradable.

### 13 DISPOSAL CONSIDERATIONS

#### WASTE MANAGEMENT

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

#### DISPOSAL METHODS

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

### 14 TRANSPORT INFORMATION



<b>DOT PROPER SHIPPING NAME</b>	AEROSOLS
<b>DOT PROPER SHIPPING NAME</b>	CONSUMER COMMODITY ORM-D
<b>TDG SHIPPING NAME</b>	AEROSOLS
<b>IDENTIFICATION No.</b>	UN1950
<b>UN NO. SEA</b>	1950
<b>IMDG CLASS</b>	2.2

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<b>IMDG PACK GR.</b>	N/A
<b>MFAG</b>	See Subsection 4.2 of MFAG.
<b>UN NO. AIR</b>	1950
<b>AIR CLASS</b>	2.2
<b>AIR SUB CLASS</b>	N/A
<b>AIR PACK GR.</b>	N/A

### 15 REGULATORY INFORMATION

#### INVENTORIES

COMPONENT	CAN	US	EU	AUS	JAP	KOR	CHN	PHLP
trans-DICHLOROETHYLENE	DSL	Yes.						
HFC-134a Tetrafluoroethane	DSL	Yes.						
1,1,1,2,3,4,4,5,5,5-decafluoropentane	DSL	Yes.						

COMPONENT	TSCA 12(b) Export Notification
trans-DICHLOROETHYLENE	No.
HFC-134a Tetrafluoroethane	No.
1,1,1,2,3,4,4,5,5,5-decafluoropentane	Yes.

#### SARA (311/312) HAZARD CATEGORIES

Acute

#### REGULATORY STATUS (US)

SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372. TSCA: The ingredients of this product are on the TSCA Inventory.

#### REGULATORY REFERENCES

29 CFR 1910.1010 Federal Regulations (OSHA Standard).

### WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM -WHMIS

#### LABEL(S) FOR SUPPLY



Compressed Gas.



Materials Causing Other Toxic Effects.

#### CONTROLLED PRODUCT CLASSIFICATION

Canadian WHMIS Classification A B2 WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (CPR SECTION (33)) This product has been classified according to the hazard criteria of the Controlled Product Regulations, and the MSDS contains all required information.

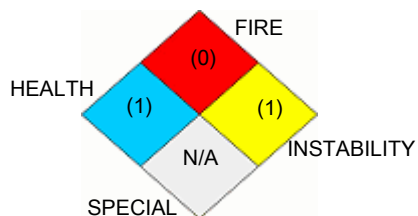
### 16 OTHER INFORMATION

#### HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

HEALTH	1
FLAMMABILITY	0
PHYSICAL	1
PERSONAL PROTECTION	upervisor

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### NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



### REVISION COMMENTS

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

**REVISION DATE** 10/03/2011

**VERSION No.** 7

### SAFETY DATA SHEET STATUS

Approved.

**DATE** January 4, 2010

### DISCLAIMER

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