



## SAFETY DATA SHEET PFR POLAR FLUX REMOVER, BULK

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

### 1. Identification

#### Product identifier

**Product name** PFR POLAR FLUX REMOVER, BULK

**Product number** MCC-PFRG, MCC-PFRP, MCC-PFRD, MCC-PFRL, MCC-PFRGL, MCC-PFRGG

#### Recommended use of the chemical and restrictions on use

**Application** Cleaning agent.

#### Details of the supplier of the safety data sheet

**Supplier** MICROCARE LLC

**Manufacturer** MICROCARE LLC  
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. Liq. 1 - H224

**Health hazards** Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Repr. 2 - H361f 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

##### Hazard symbols



**Signal word**

Danger

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<b>Hazard statements</b>	<p>H224 Extremely flammable liquid and vapor.  H304 May be fatal if swallowed and enters airways.  H315 Causes skin irritation.  H319 Causes serious eye irritation.  H336 May cause drowsiness or dizziness.  H361f Suspected of damaging fertility.  H373 May cause damage to organs through prolonged or repeated exposure.</p>
<b>Precautionary statements</b>	<p>P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.  P240 Ground/ bond container and receiving equipment.  P241 Use explosion-proof electrical equipment.  P242 Use only non-sparking tools.  P243 Take precautionary measures against static discharge.  P261 Avoid breathing vapor/ spray.  P271 Use only outdoors or in a well-ventilated area.  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.  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.  P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.  P403+P233 Store in a well-ventilated place. Keep container tightly closed.  P501 Dispose of contents/ container in accordance with national regulations.</p>
<b>Supplemental label information</b>	Safety data sheet available on request. For use in industrial installations only.
<b>Contains</b>	ACETONE, HEXANE-norm

### Other hazards

This product contains a substance classified as PBT.

### 3. Composition/information on ingredients

#### Mixtures

<b>ACETONE</b>	<b>60-100%</b>
CAS number: 67-64-1	
<b>Classification</b>	
Flam. Liq. 2 - H225	
Eye Irrit. 2A - H319	
STOT SE 3 - H336	

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<b>HEXANE-norm</b>	<b>10-30%</b>
CAS number: 110-54-3	
<b>Classification</b>	
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.	
<b>METHANOL</b>	<b>&lt;1%</b>
CAS number: 67-56-1	
<b>Classification</b>	
Flam. Liq. 2 - H225	
Acute Tox. 3 - H301	
Acute Tox. 3 - H311	
Acute Tox. 3 - H331	
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

### Composition

#### 4. First-aid measures

##### Description of first aid measures

<b>General information</b>	Promptly remove any clothing that becomes wet or contaminated. Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Inhalation</b>	Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep affected person warm and at rest. Get medical attention immediately.
<b>Ingestion</b>	Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Consult a physician for specific advice.
<b>Skin Contact</b>	Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

##### Most important symptoms and effects, both acute and delayed

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Vapors may cause headache, fatigue, dizziness and nausea.
<b>Ingestion</b>	May cause stomach pain or vomiting. Headache.

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<b>Skin contact</b>	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
<b>Eye contact</b>	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. Irritation and redness, followed by blurred vision.

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

<b>Notes for the doctor</b>	No specific recommendations. If in doubt, get medical attention promptly.
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### 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with the following media: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

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

<b>Specific hazards</b>	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/m <sup>3</sup> .
<b>Hazardous combustion products</b>	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.
<b>Advice for firefighters</b>	
<b>Protective actions during firefighting</b>	Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapors.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	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.
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#### Environmental precautions

<b>Environmental precautions</b>	Do not discharge into drains or watercourses or onto the ground.
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#### Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. If leakage cannot be stopped, evacuate area. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers.
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### 7. Handling and storage

#### Precautions for safe handling

<b>Usage precautions</b>	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.
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#### Conditions for safe storage, including any incompatibilities

<b>Storage precautions</b>	Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.
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### Specific end uses(s)

**Specific end use(s)** Cleaning agent.

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

### 8. Exposure controls/Personal protection

#### Control parameters

#### Occupational exposure limits

##### ACETONE

Long-term exposure limit (8-hour TWA): ACGIH 250 ppm 594 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): ACGIH 500 ppm 1187 mg/m<sup>3</sup>

A4

Long-term exposure limit (8-hour TWA): OSHA 1000 ppm 2400 mg/m<sup>3</sup>

##### HEXANE-norm

Long-term exposure limit (8-hour TWA): OSHA 500 ppm 1800 mg/m<sup>3</sup>

Long-term exposure limit (8-hour TWA): ACGIH 50 ppm 176 mg/m<sup>3</sup>

Sk

##### METHANOL

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 262 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): ACGIH 250 ppm 328 mg/m<sup>3</sup>

Sk

Long-term exposure limit (8-hour TWA): OSHA 200 ppm 260 mg/m<sup>3</sup>

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.

**Ingredient comments** WEL = Workplace Exposure Limits

#### METHANOL (CAS: 67-56-1)

**Biological limit values** 15 mg/l

#### Exposure controls

##### Protective equipment



##### Appropriate engineering controls

Provide adequate general and local exhaust 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.

##### 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 appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.

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<b>Hygiene measures</b>	Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.
<b>Respiratory protection</b>	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

### 9. Physical and chemical properties

#### Information on basic physical and chemical properties

<b>Appearance</b>	Liquid.
<b>Color</b>	Clear liquid. Colorless.
<b>Odor</b>	Acetone.
<b>Odor threshold</b>	No information available.
<b>pH</b>	No information available.
<b>Melting point</b>	No information available.
<b>Initial boiling point and range</b>	Not determined.
<b>Flash point</b>	~ -20°C/-4°F Method: Closed cup.
<b>Evaporation rate</b>	No information available.
<b>Evaporation factor</b>	No information available.
<b>Flammability (solid, gas)</b>	No information available.
<b>Upper/lower flammability or explosive limits</b>	Not determined.
<b>Other flammability</b>	No information available.
<b>Vapor pressure</b>	Not determined.
<b>Vapor density</b>	Not determined.
<b>Relative density</b>	No information available.
<b>Bulk density</b>	No information available.
<b>Solubility(ies)</b>	Not determined.
<b>Partition coefficient</b>	No information available.
<b>Auto-ignition temperature</b>	No information available.
<b>Decomposition Temperature</b>	No information available.
<b>Viscosity</b>	No information available.
<b>Explosive properties</b>	No information available.
<b>Global Warming Potential (GWP)</b>	
<b>Refractive index</b>	No information available.
<b>Particle size</b>	No information available.
<b>Molecular weight</b>	Not applicable.
<b>Volatility</b>	100%

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<b>Saturation concentration</b>	No information available.
<b>Critical temperature</b>	No information available.
<b>Volatile organic compound</b>	No information available.

### 10. Stability and reactivity

<b>Stability</b>	Stable at normal ambient temperatures.
<b>Possibility of hazardous reactions</b>	Will not polymerize.
<b>Conditions to avoid</b>	Avoid heat, flames and other sources of ignition.
<b>Materials to avoid</b>	Strong oxidizing agents. Strong alkalis. Strong mineral acids.
<b>Hazardous decomposition products</b>	Fire creates: Vapors/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Hydrogen fluoride (HF).

### 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)**                      11,111.11

#### Acute toxicity - dermal

**ATE dermal (mg/kg)**                      33,333.33

#### Acute toxicity - inhalation

**ATE inhalation (vapours mg/l)**      333.33

**Inhalation**                                      May cause respiratory system irritation. Vapors may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system.

**Skin Contact**                                    Product has a defatting effect on skin. May cause skin irritation/eczema.

**Eye contact**                                    Irritating to eyes.

#### Toxicological information on ingredients.

#### ACETONE

##### Acute toxicity - inhalation

**Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)**      50,100.0

**ATE inhalation (vapours mg/l)**                      50,100.0

#### METHANOL

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)**                                      Acute Tox. 3 - H301 Toxic if swallowed.

**ATE oral (mg/kg)**                                      100.0

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### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Acute Tox. 3 - H311 Toxic in contact with skin.

**ATE dermal (mg/kg)** 300.0

### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Acute Tox. 3 - H331 Toxic if inhaled.

**ATE inhalation (vapours mg/l)** 3.0

**ATE inhalation (dusts/mists mg/l)** 0.5

### Skin corrosion/irritation

**Animal data** Based on available data the classification criteria are not met.

### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

### Respiratory sensitization

**Respiratory sensitization** Based on available data the classification criteria are not met.

### Skin sensitization

**Skin sensitization** Based on available data the classification criteria are not met.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

**IARC carcinogenicity** None of the ingredients are listed or exempt.

### Reproductive toxicity

**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.



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<b>Ingestion</b>	May cause stomach pain or vomiting. May cause severe internal injury.
<b>Skin Contact</b>	A single exposure may cause the following adverse effects: Pain.
<b>Eye contact</b>	No specific symptoms known.
<b>Route of exposure</b>	Ingestion Inhalation Skin and/or eye contact
<b>Target Organs</b>	No specific target organs known.

### 12. Ecological information

#### Ecological information on ingredients.

##### METHANOL

<b>Ecotoxicity</b>	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.
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#### Ecological information on ingredients.

##### METHANOL

<b>Toxicity</b>	Based on available data the classification criteria are not met.
<b><u>Acute aquatic toxicity</u></b>	
<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: >100 mg/l, Pimephales promelas (Fat-head Minnow)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: >10000 mg/l, Daphnia magna

#### Persistence and degradability

#### Ecological information on ingredients.

##### ACETONE

<b>Persistence and degradability</b>	The product is readily biodegradable.
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##### METHANOL

<b>Persistence and degradability</b>	The degradability of the product is not known.
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#### Bioaccumulative potential

<b>Partition coefficient</b>	No information available.
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#### Ecological information on ingredients.

##### ACETONE

<b>Bio-Accumulative Potential</b>	No information available.
<b>Partition coefficient</b>	log Pow: -0.024

##### METHANOL

<b>Bio-Accumulative Potential</b>	No data available on bioaccumulation.
<b>Partition coefficient</b>	: -0.77

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### Mobility in soil

**Mobility** Not considered to be a significant hazard due to the small quantities used.

### Ecological information on ingredients.

#### METHANOL

**Mobility** No data available.

### Other adverse effects

### Ecological information on ingredients.

#### METHANOL

**Other adverse effects** None known.

## 13. Disposal considerations

### Waste treatment methods

**General information** Reuse or recycle products wherever possible.

**Disposal methods** Empty containers must not be punctured or incinerated because of the risk of an explosion. Reuse or recycle products wherever possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

## 14. Transport information

### UN Number

<b>UN No. (TDG)</b>	UN1993
<b>UN No. (IMDG)</b>	UN1993
<b>UN No. (ICAO)</b>	UN1993
<b>UN No. (DOT)</b>	UN1993

### UN proper shipping name

<b>Proper shipping name (TDG)</b>	FLAMMABLE LIQUIDS, N.O.S, (ACETONE, HEXANE)
<b>Proper shipping name (IMDG)</b>	FLAMMABLE LIQUIDS, N.O.S, (ACETONE, HEXANE)
<b>Proper shipping name (ICAO)</b>	FLAMMABLE LIQUIDS, N.O.S, (ACETONE, HEXANE)
<b>Proper shipping name (DOT)</b>	FLAMMABLE LIQUIDS, N.O.S, (ACETONE, HEXANE)

### Transport hazard class(es)

<b>TDG class</b>	3
<b>TDG label(s)</b>	3
<b>IMDG Class</b>	3
<b>ICAO class/division</b>	3

### Transport labels



### Packing group

**TDG Packing Group** II

## PFR POLAR FLUX REMOVER, BULK

IMDG packing group II

ICAO packing group II

DOT packing group II

### Environmental hazards

#### Environmentally Hazardous Substance

No.

### Special precautions for user

EmS F-E, S-E

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78  
and the IBC Code

## 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)

##### *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*

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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.

### 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.

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### 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

<b>Revision comments</b>	NOTE: Lines within the margin indicate significant changes from the previous revision.
<b>Revision date</b>	6/8/2018
<b>Revision</b>	24
<b>Supersedes date</b>	6/8/2018
<b>SDS No.</b>	BULK - PFR
<b>Hazard statements in full</b>	<p>H224 Extremely flammable liquid and vapor.  H225 Highly flammable liquid and vapor.  H301 Toxic if swallowed.  H304 May be fatal if swallowed and enters airways.  H311 Toxic in contact with skin.  H315 Causes skin irritation.  H319 Causes serious eye irritation.  H331 Toxic if inhaled.  H336 May cause drowsiness or dizziness.  H361f Suspected of damaging fertility.  H370 Causes damage to organs .  H373 May cause damage to organs through prolonged or repeated exposure.</p>

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.