

**PROVON® Foaming Antimicrobial Handwash  
with PCMX**

Version 3.0      Revision Date: 05/05/2015      MSDS Number: 36491-00004      Date of last issue: 04/17/2015  
Date of first issue: 12/11/2014

---

**SECTION 1. IDENTIFICATION**

Product name : PROVON® Foaming Antimicrobial Handwash with PCMX

**Manufacturer or supplier's details**

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500  
Akron OH 44311

Telephone : 1 (330) 255-6000

Emergency telephone : 1-800-424-9300 CHEMTREC

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

Recommended use : Antibacterial Soap

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

---

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Flammable liquids : Category 3

Serious eye damage : Category 1

**GHS Label element**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H226 Flammable liquid and vapor.



## PROVON® Foaming Antimicrobial Handwash with PCMX

Version 3.0      Revision Date: 05/05/2015      MSDS Number: 36491-00004      Date of last issue: 04/17/2015  
Date of first issue: 12/11/2014

H318 Causes serious eye damage.

Precautionary Statements : **Prevention:**  
 P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
 P233 Keep container tightly closed.  
 P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
 P242 Use only non-sparking tools.  
 P243 Take precautionary measures against static discharge.  
 P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.  
**Storage:**  
 P403 + P235 Store in a well-ventilated place. Keep cool.  
**Disposal:**  
 P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards

Vapors may form explosive mixture with air.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Hazardous ingredients

| Chemical Name               | CAS-No.  | Concentration (%) |
|-----------------------------|----------|-------------------|
| Ethanol                     | 64-17-5  | >= 5 - < 10       |
| Dodecanoic acid             | 143-07-7 | >= 5 - < 10       |
| Ethanolamine                | 141-43-5 | >= 1 - < 5        |
| l-(+)-Lactic acid           | 79-33-4  | >= 1 - < 5        |
| 4-chloro-3,5-dimethylphenol | 88-04-0  | >= 0.1 - < 1      |

### SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
 When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.  
 Get medical attention if symptoms occur.

In case of skin contact : Wash with water and soap as a precaution.



## PROVON® Foaming Antimicrobial Handwash with PCMX

|                |                              |                             |   |
|----------------|------------------------------|-----------------------------|---|
| Version<br>3.0 | Revision Date:<br>05/05/2015 | MSDS Number:<br>36491-00004 | Date of last issue: 04/17/2015<br>Date of first issue: 12/11/2014 |
|----------------|------------------------------|-----------------------------|---|

- Get medical attention if symptoms occur.
- In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.  
If easy to do, remove contact lens, if worn.  
Get medical attention immediately.
- If swallowed : If swallowed, DO NOT induce vomiting.  
Get medical attention if symptoms occur.  
Rinse mouth thoroughly with water.
- Most important symptoms and effects, both acute and delayed : Causes serious eye damage.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
- Notes to physician : Treat symptomatically and supportively.

### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire fighting : Do not use a solid water stream as it may scatter and spread fire.  
Flash back possible over considerable distance.  
Vapors may form explosive mixtures with air.  
Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Use water spray to cool unopened containers.  
Remove undamaged containers from fire area if it is safe to do so.  
Evacuate area.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

### SECTION 6. ACCIDENTAL RELEASE MEASURES



## PROVON® Foaming Antimicrobial Handwash with PCMX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 04/17/2015  |
| 3.0     | 05/05/2015     | 36491-00004  | Date of first issue: 12/11/2014 |

---

- |   |  |
|---|--|
| Personal precautions,<br>protective equipment and<br>emergency procedures | : Remove all sources of ignition.<br>Use personal protective equipment.<br>Follow safe handling advice and personal protective<br>equipment recommendations.   |
| Environmental precautions   | : Discharge into the environment must be avoided.<br>Prevent further leakage or spillage if safe to do so.<br>Prevent spreading over a wide area (e.g. by containment or oil<br>barriers).<br>Retain and dispose of contaminated wash water.<br>Local authorities should be advised if significant spillages<br>cannot be contained.   |
| Methods and materials for<br>containment and cleaning up                  | : Non-sparking tools should be used.<br>Soak up with inert absorbent material.<br>Suppress (knock down) gases/vapors/mists with a water spray<br>jet.<br>For large spills, provide diking or other appropriate<br>containment to keep material from spreading. If diked material<br>can be pumped, store recovered material in appropriate<br>container.<br>Clean up remaining materials from spill with suitable<br>absorbent.<br>Local or national regulations may apply to releases and<br>disposal of this material, as well as those materials and items<br>employed in the cleanup of releases. You will need to<br>determine which regulations are applicable.<br>Sections 13 and 15 of this SDS provide information regarding<br>certain local or national requirements. |

---

### SECTION 7. HANDLING AND STORAGE

- |                             |   |
|-----------------------------|---|
| Technical measures          | : See Engineering measures under EXPOSURE<br>CONTROLS/PERSONAL PROTECTION section.  |
| Local/Total ventilation     | : Use with local exhaust ventilation.<br>Use only in an area equipped with explosion proof exhaust<br>ventilation.  |
| Advice on safe handling     | : Avoid inhalation of vapor or mist.<br>Do not swallow.<br>Do not get in eyes.<br>Avoid prolonged or repeated contact with skin.<br>Handle in accordance with good industrial hygiene and safety<br>practice.<br>Non-sparking tools should be used.<br>Keep container tightly closed.<br>Keep away from heat and sources of ignition.<br>Take precautionary measures against static discharges.<br>Take care to prevent spills, waste and minimize release to the<br>environment. |
| Conditions for safe storage | : Keep in properly labeled containers.  |

**PROVON® Foaming Antimicrobial Handwash  
with PCMX**

Version 3.0      Revision Date: 05/05/2015      MSDS Number: 36491-00004      Date of last issue: 04/17/2015  
Date of first issue: 12/11/2014

Keep tightly closed.  
Keep in a cool, well-ventilated place.  
Store in accordance with the particular national regulations.  
Keep away from heat and sources of ignition.

Materials to avoid : Do not store with the following product types:  
Strong oxidizing agents  
Organic peroxides  
Flammable solids  
Pyrophoric liquids  
Pyrophoric solids  
Self-heating substances and mixtures  
Substances and mixtures which in contact with water emit flammable gases  
Explosives  
Gases

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Ingredients with workplace control parameters**

| Ingredients  | CAS-No.  | Value type<br>(Form of exposure) | Control parameters /<br>Permissible concentration | Basis     |
|--------------|----------|----------------------------------|---|-----------|
| Ethanol      | 64-17-5  | TWA                              | 1,000 ppm<br>1,900 mg/m <sup>3</sup>              | NIOSH REL |
|              |          | TWA                              | 1,000 ppm<br>1,900 mg/m <sup>3</sup>              | OSHA Z-1  |
|              |          | STEL                             | 1,000 ppm   | ACGIH     |
| Ethanolamine | 141-43-5 | TWA                              | 3 ppm   | ACGIH     |
|              |          | STEL                             | 6 ppm   | ACGIH     |
|              |          | TWA                              | 3 ppm<br>8 mg/m <sup>3</sup>                      | NIOSH REL |
|              |          | ST                               | 6 ppm<br>15 mg/m <sup>3</sup>                     | NIOSH REL |
|              |          | TWA                              | 3 ppm<br>6 mg/m <sup>3</sup>                      | OSHA Z-1  |

**Hazardous components without workplace control parameters**

| Ingredients                 | CAS-No.  |
|-----------------------------|----------|
| Dodecanoic acid             | 143-07-7 |
| l-(+)-Lactic acid           | 79-33-4  |
| 4-chloro-3,5-dimethylphenol | 88-04-0  |

**Engineering measures** : Minimize workplace exposure concentrations.  
Use only in an area equipped with explosion proof exhaust ventilation.  
Use with local exhaust ventilation.  
Dust formation may be relevant in the processing of this product. In addition to substance-specific OELs, general limitations of concentrations of particulates in the air at



## PROVON® Foaming Antimicrobial Handwash with PCMX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 04/17/2015  |
| 3.0     | 05/05/2015     | 36491-00004  | Date of first issue: 12/11/2014 |

---

workplaces have to be considered in workplace risk assessment. Relevant limits include: OSHA PEL for Particulates Not Otherwise Regulated of 15 mg/m<sup>3</sup> - total dust, 5 mg/m<sup>3</sup> - respirable fraction; and ACGIH TWA for Particles (insoluble or poorly soluble) Not Otherwise Specified of 3 mg/m<sup>3</sup> - respirable particles, 10 mg/m<sup>3</sup> - inhalable particles.

### Personal protective equipment

- Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
- Hand protection
- Material : Impervious gloves
- Material : Flame retardant gloves
- Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.
- Eye protection : Wear the following personal protective equipment:  
Chemical resistant goggles must be worn.  
If splashes are likely to occur, wear:  
Face-shield
- Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.  
Wear the following personal protective equipment:  
Flame retardant antistatic protective clothing.  
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).
- Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.  
When using do not eat, drink or smoke.

**PROVON® Foaming Antimicrobial Handwash  
with PCMX**

|                |                              |                             |   |
|----------------|------------------------------|-----------------------------|---|
| Version<br>3.0 | Revision Date:<br>05/05/2015 | MSDS Number:<br>36491-00004 | Date of last issue: 04/17/2015<br>Date of first issue: 12/11/2014 |
|----------------|------------------------------|-----------------------------|---|

---

Wash contaminated clothing before re-use.

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

|   |   |
|---|---|
| Appearance                              | : liquid  |
| Color                                   | : clear, Slightly hazy, blue green                          |
| Odor                                    | : fruity  |
| Odor Threshold                          | : No data available   |
| pH                                      | : 7.8 - 9.7   |
| Melting point/freezing point            | : No data available   |
| Initial boiling point and boiling range | : No data available   |
| Flash point                             | : 45.6 °C   |
| Evaporation rate                        | : No data available   |
| Flammability (solid, gas)               | : Not applicable  |
| Upper explosion limit                   | : No data available   |
| Lower explosion limit                   | : No data available   |
| Vapor pressure                          | : No data available   |
| Relative vapor density                  | : No data available   |
| Density                                 | : 1 g/cm <sup>3</sup>                                       |
| Solubility(ies)<br>Water solubility     | : soluble   |
| Partition coefficient: n-octanol/water  | : Not applicable  |
| Autoignition temperature                | : No data available   |
| Decomposition temperature               | : The substance or mixture is not classified self-reactive. |
| Viscosity<br>Viscosity, kinematic       | : 10 - 20 mm <sup>2</sup> /s (20 °C)                        |
| Explosive properties                    | : Not explosive   |
| Oxidizing properties                    | : The substance or mixture is not classified as oxidizing.  |

**PROVON® Foaming Antimicrobial Handwash  
with PCMX**

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 04/17/2015  |
| 3.0     | 05/05/2015     | 36491-00004  | Date of first issue: 12/11/2014 |

---

**SECTION 10. STABILITY AND REACTIVITY**

|                                    |   |
|------------------------------------|---|
| Reactivity                         | : Not classified as a reactivity hazard.  |
| Chemical stability                 | : Stable under normal conditions.   |
| Possibility of hazardous reactions | : Flammable liquid and vapor.<br>Vapors may form explosive mixture with air.<br>Can react with strong oxidizing agents. |
| Conditions to avoid                | : Heat, flames and sparks.  |
| Incompatible materials             | : Oxidizing agents  |
| Hazardous decomposition products   | : No hazardous decomposition products are known.  |

---

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

Inhalation  
Skin contact  
Ingestion  
Eye contact

**Acute toxicity**

Not classified based on available information.

**Product:**

|                           |  |
|---------------------------|--|
| Acute oral toxicity       | : Acute toxicity estimate: > 5,000 mg/kg<br>Method: Calculation method   |
| Acute inhalation toxicity | : Acute toxicity estimate: > 40 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapor<br>Method: Calculation method |
| Acute dermal toxicity     | : Acute toxicity estimate: > 5,000 mg/kg<br>Method: Calculation method   |

**Ingredients:****Ethanol:**

|                           |  |
|---------------------------|--|
| Acute oral toxicity       | : LD50 (Rat): > 5,000 mg/kg  |
| Acute inhalation toxicity | : LC50 (Rat): 124.7 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapor |

**Dodecanoic acid:**

|                     |  |
|---------------------|--|
| Acute oral toxicity | : LD50 (Rat): > 5,000 mg/kg<br>Method: OECD Test Guideline 401 |
|---------------------|--|



**PROVON® Foaming Antimicrobial Handwash  
with PCMX**

Version 3.0      Revision Date: 05/05/2015      MSDS Number: 36491-00004      Date of last issue: 04/17/2015  
Date of first issue: 12/11/2014

---

Acute inhalation toxicity : LC50 (Rat): > 0.162 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Based on data from similar materials

**Ethanolamine:**

Acute oral toxicity : LD50 (Rat): 1,515 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: 11 mg/l  
Test atmosphere: vapor  
Method: Expert judgment  
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Acute dermal toxicity : LD50 (Rabbit): 1,025 mg/kg

**I-(+)-Lactic acid:**

Acute oral toxicity : LD50 (Rat, female): 3,543 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 7.94 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

**4-chloro-3,5-dimethylphenol:**

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg  
Method: Expert judgment  
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Acute inhalation toxicity : LC50 (Rat): > 6.29 mg/l  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

**Skin corrosion/irritation**

Not classified based on available information.

**Product:**

Result: No skin irritation

**Ingredients:****Ethanol:**

Species: Rabbit

**PROVON® Foaming Antimicrobial Handwash  
with PCMX**

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 04/17/2015  |
| 3.0     | 05/05/2015     | 36491-00004  | Date of first issue: 12/11/2014 |

---

Method: OECD Test Guideline 404  
Result: No skin irritation

**Dodecanoic acid:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation

**Ethanolamine:**

Species: Rabbit  
Result: Corrosive after 3 minutes to 1 hour of exposure

**I-(+)-Lactic acid:**

Species: Rabbit  
Result: Skin irritation

**4-chloro-3,5-dimethylphenol:**

Result: Skin irritation  
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Ingredients:****Ethanol:**

Species: Rabbit  
Result: Irritation to eyes, reversing within 21 days  
Method: OECD Test Guideline 405

**Dodecanoic acid:**

Species: Rabbit  
Result: Irreversible effects on the eye  
Method: OECD Test Guideline 405

**Ethanolamine:**

Species: Rabbit  
Result: Irreversible effects on the eye

**I-(+)-Lactic acid:**

Species: Chicken eye  
Result: Irreversible effects on the eye

**4-chloro-3,5-dimethylphenol:**

Result: Irreversible effects on the eye

**Respiratory or skin sensitization**

Skin sensitization: Not classified based on available information.  
Respiratory sensitization: Not classified based on available information.

**Product:**

Assessment: Does not cause skin sensitization.



## PROVON® Foaming Antimicrobial Handwash with PCMX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 04/17/2015  |
| 3.0     | 05/05/2015     | 36491-00004  | Date of first issue: 12/11/2014 |

---

### Ingredients:

#### **Ethanol:**

Test Type: Local lymph node assay (LLNA)  
Routes of exposure: Skin contact  
Species: Mouse  
Result: negative

#### **Dodecanoic acid:**

Test Type: Maximization Test (GPMT)  
Routes of exposure: Skin contact  
Species: Guinea pig  
Result: negative

#### **Ethanolamine:**

Test Type: Maximization Test (GPMT)  
Routes of exposure: Skin contact  
Species: Guinea pig  
Result: negative

#### **I-(+)-Lactic acid:**

Test Type: Buehler Test  
Routes of exposure: Skin contact  
Species: Guinea pig  
Result: negative

#### **4-chloro-3,5-dimethylphenol:**

Assessment: Probability or evidence of skin sensitization in humans  
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

### **Germ cell mutagenicity**

Not classified based on available information.

### Ingredients:

#### **Ethanol:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Result: negative

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)  
Species: Mouse  
Application Route: Ingestion  
Result: negative

#### **Dodecanoic acid:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative  
Remarks: Based on data from similar materials

#### **Ethanolamine:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative



## PROVON® Foaming Antimicrobial Handwash with PCMX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 04/17/2015  |
| 3.0     | 05/05/2015     | 36491-00004  | Date of first issue: 12/11/2014 |

---

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Mouse  
Application Route: Ingestion  
Method: OECD Test Guideline 474  
Result: negative

### **I-(+)-Lactic acid:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Metabolic activation: with and without metabolic activation  
Result: negative  
Remarks: Based on data from similar materials

: Test Type: Bacterial reverse mutation assay (AMES)  
Metabolic activation: with and without metabolic activation  
Result: negative

### **4-chloro-3,5-dimethylphenol:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

### **Carcinogenicity**

Not classified based on available information.

### **Ingredients:**

#### **I-(+)-Lactic acid:**

Species: Rat  
Application Route: Ingestion  
Exposure time: 2 Years  
Result: negative  
Remarks: Based on data from similar materials

#### **IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

#### **OSHA**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

#### **NTP**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### **Reproductive toxicity**

Not classified based on available information.

### **Ingredients:**

#### **Ethanol:**

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Mouse  
Application Route: Ingestion  
Method: OECD Test Guideline 416



## PROVON® Foaming Antimicrobial Handwash with PCMX

|                |                              |                             |   |
|----------------|------------------------------|-----------------------------|---|
| Version<br>3.0 | Revision Date:<br>05/05/2015 | MSDS Number:<br>36491-00004 | Date of last issue: 04/17/2015<br>Date of first issue: 12/11/2014 |
|----------------|------------------------------|-----------------------------|---|

---

Result: negative

### Dodecanoic acid:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 422  
Result: negative  
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 422  
Result: negative  
Remarks: Based on data from similar materials

### Ethanolamine:

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: Ingestion  
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 414  
Result: negative

### STOT-single exposure

Not classified based on available information.

### Ingredients:

#### Ethanolamine:

Assessment: May cause respiratory irritation.

#### I-(+)-Lactic acid:

Assessment: May cause respiratory irritation.

### STOT-repeated exposure

Not classified based on available information.

### Ingredients:

#### Ethanolamine:

Routes of exposure: inhalation (dust/mist/fume)

Assessment: No significant health effects observed in animals at concentrations of 0.2 mg/l/6h/d or less.



## PROVON® Foaming Antimicrobial Handwash with PCMX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 04/17/2015  |
| 3.0     | 05/05/2015     | 36491-00004  | Date of first issue: 12/11/2014 |

---

### Repeated dose toxicity

#### Ingredients:

##### **Ethanol:**

Species: Rat  
NOAEL: 2,400 mg/kg  
Application Route: Ingestion  
Exposure time: 2 y

##### **Dodecanoic acid:**

Species: Rat  
NOAEL: 10,000 mg/kg  
Application Route: Ingestion  
Exposure time: 18 w

##### **Ethanolamine:**

Species: Rat  
NOAEL: 150 mg/m<sup>3</sup>  
Application Route: inhalation (dust/mist/fume)  
Exposure time: 28 d

##### **l-(+)-Lactic acid:**

Species: Rat  
NOAEL:  $\geq$  886 mg/kg  
Application Route: Skin contact  
Exposure time: 13 w

##### **4-chloro-3,5-dimethylphenol:**

Species: Rabbit  
LOAEL: 180 mg/kg  
Application Route: Skin contact  
Exposure time: 90 d

### Aspiration toxicity

Not classified based on available information.

---

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Ingredients:

##### **Ethanol:**

|   |   |   |
|---|---|---|
| Toxicity to fish                                    | : | LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l<br>Exposure time: 96 h                                  |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 1,000 mg/l<br>Exposure time: 48 h  |
| Toxicity to algae                                   | : | EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201 |



## PROVON® Foaming Antimicrobial Handwash with PCMX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 04/17/2015  |
| 3.0     | 05/05/2015     | 36491-00004  | Date of first issue: 12/11/2014 |

---

- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 9.6 mg/l  
Exposure time: 9 d
- Toxicity to bacteria : EC50 (Photobacterium phosphoreum): 32.1 mg/l  
Exposure time: 0.25 h
- Dodecanoic acid:**
- Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): 5 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3.6 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202
- Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): > 7.6 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: No toxicity at the limit of solubility.
- NOEC (Selenastrum capricornutum (green algae)): > 7.6 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: No toxicity at the limit of solubility.
- Toxicity to fish (Chronic toxicity) : NOEC (Danio rerio (zebra fish)): 2 mg/l  
Exposure time: 28 d  
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.47 mg/l  
Exposure time: 21 d  
Method: OECD Test Guideline 211
- Toxicity to bacteria : EC10 (Pseudomonas putida): > 1,000 mg/l  
Exposure time: 30 min  
Method: OECD Test Guideline 209
- Ethanolamine:**
- Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 349 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 65 mg/l  
Exposure time: 48 h
- Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): 2.8 mg/l  
Exposure time: 72 h
- NOEC (Scenedesmus capricornutum (fresh water algae)): 1 mg/l  
Exposure time: 72 h
- Toxicity to fish (Chronic toxicity) : NOEC (Oryzias latipes (Orange-red killifish)): 1.24 mg/l  
Exposure time: 41 d



## PROVON® Foaming Antimicrobial Handwash with PCMX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 04/17/2015  |
| 3.0     | 05/05/2015     | 36491-00004  | Date of first issue: 12/11/2014 |

---

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.85 mg/l  
Exposure time: 21 d

Toxicity to bacteria : EC50 (Pseudomonas putida): 110 mg/l  
Exposure time: 17 h

### **I-(+)-Lactic acid:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 130 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 250 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae : NOEC (Selenastrum capricornutum (fresh water algae)): 1.9 g/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

EC50 (Selenastrum capricornutum (fresh water algae)): 3.5 g/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

Toxicity to bacteria : EC50: > 100 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209

### **4-chloro-3,5-dimethylphenol:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.76 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 7.7 mg/l  
Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 1

### **Persistence and degradability**

#### **Ingredients:**

##### **Ethanol:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 84 %  
Exposure time: 20 d

##### **Dodecanoic acid:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 86 %  
Exposure time: 30 d  
Method: OECD Test Guideline 301D





## PROVON® Foaming Antimicrobial Handwash with PCMX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 04/17/2015  |
| 3.0     | 05/05/2015     | 36491-00004  | Date of first issue: 12/11/2014 |

---

**Ethanolamine:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: > 90 %  
Exposure time: 21 d

**I-(+)-Lactic acid:**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 67 %  
Exposure time: 20 d

**Bioaccumulative potential****Ingredients:****Ethanol:**

Partition coefficient: n-octanol/water : log Pow: -0.35

**Dodecanoic acid:**

Bioaccumulation : Species: Fish  
Bioconcentration factor (BCF): 234 - 288  
Remarks: Based on data from similar materials

Partition coefficient: n-octanol/water : Pow: 4.6

**Ethanolamine:**

Partition coefficient: n-octanol/water : log Pow: -1.91

**I-(+)-Lactic acid:**

Partition coefficient: n-octanol/water : log Pow: -0.6

**4-chloro-3,5-dimethylphenol:**

Partition coefficient: n-octanol/water : log Pow: 3.27

**Mobility in soil**

No data available

**Other adverse effects**

No data available

---

**SECTION 13. DISPOSAL CONSIDERATIONS**
**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not burn, or use a cutting torch on, the empty drum.



## PROVON® Foaming Antimicrobial Handwash with PCMX

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 04/17/2015  |
| 3.0     | 05/05/2015     | 36491-00004  | Date of first issue: 12/11/2014 |

---

### SECTION 14. TRANSPORT INFORMATION

#### International Regulation

##### UNRTDG

|                      |   |
|----------------------|---|
| UN number            | : UN 1993                               |
| Proper shipping name | : FLAMMABLE LIQUID, N.O.S.<br>(Ethanol) |
| Class                | : 3                                     |
| Packing group        | : III                                   |
| Labels               | : 3                                     |

##### IATA-DGR

|  |   |
|--|---|
| UN/ID No.                                | : UN 1993                               |
| Proper shipping name                     | : Flammable liquid, n.o.s.<br>(Ethanol) |
| Class                                    | : 3                                     |
| Packing group                            | : III                                   |
| Labels                                   | : Flammable Liquids                     |
| Packing instruction (cargo aircraft)     | : 366                                   |
| Packing instruction (passenger aircraft) | : 355                                   |

##### IMDG-Code

|                      |   |
|----------------------|---|
| UN number            | : UN 1993                               |
| Proper shipping name | : FLAMMABLE LIQUID, N.O.S.<br>(Ethanol) |
| Class                | : 3                                     |
| Packing group        | : III                                   |
| Labels               | : 3                                     |
| EmS Code             | : F-E, <u>S-E</u>                       |
| Marine pollutant     | : no                                    |

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### Domestic regulation

##### 49 CFR

|                      |  |
|----------------------|--|
| UN/ID/NA number      | : NA 1993  |
| Proper shipping name | : COMBUSTIBLE LIQUID, N.O.S.<br>(Ethanol)  |
| Class                | : CBL  |
| Packing group        | : III  |
| Labels               | : None   |
| ERG Code             | : 128  |
| Marine pollutant     | : no   |
| Remarks              | : Above applies only to containers over 119 gallons or 450 liters. Not regulated if shipped in packages less than or equal |



## PROVON® Foaming Antimicrobial Handwash with PCMX

|                |                              |                             |   |
|----------------|------------------------------|-----------------------------|---|
| Version<br>3.0 | Revision Date:<br>05/05/2015 | MSDS Number:<br>36491-00004 | Date of last issue: 04/17/2015<br>Date of first issue: 12/11/2014 |
|----------------|------------------------------|-----------------------------|---|

to 119 gallons (450 liters).

### SECTION 15. REGULATORY INFORMATION

#### EPCRA - Emergency Planning and Community Right-to-Know

##### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### US State Regulations

##### Pennsylvania Right To Know

|                    |            |           |
|--------------------|------------|-----------|
| Water              | 7732-18-5  | 70 - 90 % |
| Ethanol            | 64-17-5    | 5 - 10 %  |
| Dodecanoic acid    | 143-07-7   | 5 - 10 %  |
| Ethanolamine       | 141-43-5   | 1 - 5 %   |
| Dipropylene glycol | 25265-71-8 | 1 - 5 %   |
| Propan-2-ol        | 67-63-0    | 0.1 - 1 % |

##### New Jersey Right To Know

|                    |            |           |
|--------------------|------------|-----------|
| Water              | 7732-18-5  | 70 - 90 % |
| Ethanol            | 64-17-5    | 5 - 10 %  |
| Dodecanoic acid    | 143-07-7   | 5 - 10 %  |
| Ethanolamine       | 141-43-5   | 1 - 5 %   |
| Dipropylene glycol | 25265-71-8 | 1 - 5 %   |

**California Prop 65** : This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

#### The ingredients of this product are reported in the following inventories:

AICS : All ingredients listed or exempt.

#### Inventories

# PROVON® Foaming Antimicrobial Handwash with PCMX

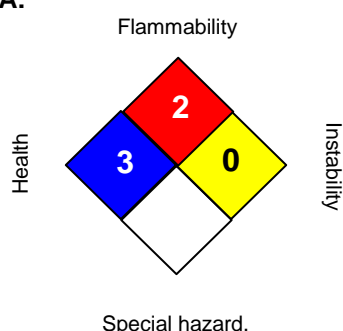
Version 3.0      Revision Date: 05/05/2015      MSDS Number: 36491-00004      Date of last issue: 04/17/2015  
Date of first issue: 12/11/2014

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

## SECTION 16. OTHER INFORMATION

### Further information

#### NFPA:



#### HMIS III:

|                        |          |
|------------------------|----------|
| <b>HEALTH</b>          | <b>3</b> |
| <b>FLAMMABILITY</b>    | <b>2</b> |
| <b>PHYSICAL HAZARD</b> | <b>0</b> |

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

### Full text of other abbreviations

|  |   |
|--|---|
| ACGIH  | : USA. ACGIH Threshold Limit Values (TLV)   |
| NIOSH REL  | : USA. NIOSH Recommended Exposure Limits  |
| OSHA Z-1   | : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants  |
| ACGIH / TWA  | : 8-hour, time-weighted average   |
| ACGIH / STEL   | : Short-term exposure limit   |
| NIOSH REL / TWA  | : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek   |
| NIOSH REL / ST   | : STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday  |
| OSHA Z-1 / TWA   | : 8-hour time weighted average  |
| Sources of key data used to compile the Material Safety Data Sheet | : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a> |
| Revision Date  | : 05/05/2015  |

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, un-

# SAFETY DATA SHEET



## **PROVON® Foaming Antimicrobial Handwash with PCMX**

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 04/17/2015  |
| 3.0     | 05/05/2015     | 36491-00004  | Date of first issue: 12/11/2014 |

---

less specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8