SAFETY DATA SHEET

1. Identification

Product identifier: Protection That Lives On Microban Professional Brand 24 Hour Keeps Killing 99% of Bacteria For Up To 24 Hours Sanitizing Spray

Other means of identification

Product code: 30130-002
Recommended use: Sanitizing Spray
Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

Company name: Microban Products Company
Address: 11400 Vanstory Drive
Huntersville, NC 28078
USA
Telephone: 704-875-0806
Email: infoleads@microban.com
Emergency phone number: (24 hr Emergency) 1-800-535-5053 or 1-352-323-3500

2. Hazard(s) identification

Physical hazards: Gases under pressure
Liquefied gas

Health hazards: Not classified.

Environmental hazards: Hazardous to the aquatic environment, acute hazard
Category 1
Hazardous to the aquatic environment, long-term hazard
Category 1

OSHA defined hazards: Not classified.

Label elements

Signal word: Warning
Hazard statement: Contains gas under pressure; may explode if heated. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention: Avoid release to the environment. Observe good industrial hygiene practices.
Response: Collect spillage. Wash hands after handling.
Storage: Protect from sunlight. Store in a well-ventilated place.
Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC): None known.

Supplemental information: None.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen</td>
<td></td>
<td>7727-37-9</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds,</td>
<td></td>
<td>68424-85-1</td>
<td>&lt;0.2</td>
</tr>
<tr>
<td>Benzyl-c12-16-alkyldimethyl,</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Chlorides</td>
<td></td>
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</tr>
</tbody>
</table>

Material name: Protection That Lives On Microban Professional Brand 24 Hour Keeps Killing 99% of Bacteria For Up To 24 Hours Sanitizing Spray

30130-002  Version #: 04  Revision date: 05-September-2018  Issue date: 13-November-2017
### 4. First-aid measures

**Inhalation**
Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact**
Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact**
Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion**
Rinse mouth. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed**
Direct contact with eyes may cause temporary irritation.

**Indication of immediate medical attention and special treatment needed**
Provide general supportive measures and treat symptomatically.

**General information**
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

**Suitable extinguishing media**
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**
During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions**
In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

**Specific methods**
Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**
Contents under pressure. Pressurized container may explode when exposed to heat or flame.

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**
Isolate area until gas has dispersed. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Absorb in vermiculite, dry sand or earth and place into containers. Clean surface thoroughly to remove residual contamination.

**Environmental precautions**
Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

### 7. Handling and storage

**Precautions for safe handling**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
8. Exposure controls/personal protection

Occupational exposure limits
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td>Type</td>
</tr>
<tr>
<td>Ethanol (CAS 64-17-5)</td>
<td>PEL</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td>Type</td>
</tr>
<tr>
<td>Ethanol (CAS 64-17-5)</td>
<td>STEL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. NIOSH: Pocket Guide to Chemical Hazards</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td>Type</td>
</tr>
<tr>
<td>Ethanol (CAS 64-17-5)</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment
Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin protection
Hand protection
Wear appropriate chemical resistant gloves.

Other
Wear suitable protective clothing.

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance
Physical state     Liquid, Gas.
Form              Liquid. Liquefied gas.
Color             Clear water-white to Slightly off-white.

Odor              Not available.
Odor threshold    Not available.

pH                 9.5 - 10.5

Melting point/freezing point Not available.
Initial boiling point and boiling range Not available.
Flash point       Not available.
Evaporation rate  Not available.
Flammability (solid, gas) Not available.
Upper/lower flammability or explosive limits

- Flammability limit - lower (%): Not available.
- Flammability limit - upper (%): Not available.
- Explosive limit - lower (%): Not available.
- Explosive limit - upper (%): Not available.

Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility(ies):
  - Solubility (water): Not available.
Partition coefficient (n-octanol/water): Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.
Other information:
  - Explosive properties: Not explosive.
  - Oxidizing properties: Not oxidizing.
  - Specific gravity: 0.99 - 1.01

10. Stability and reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability: Material is stable under normal conditions.
Possibility of hazardous reactions: Hazardous polymerization does not occur.
Conditions to avoid: Excessive heat. Contact with incompatible materials.
Incompatible materials: Strong oxidizing agents.
Hazardous decomposition products: No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure:
  - Inhalation: Prolonged inhalation may be harmful.
  - Skin contact: No adverse effects due to skin contact are expected.
  - Eye contact: Direct contact with eyes may cause temporary irritation.
  - Ingestion: Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics: Direct contact with eyes may cause temporary irritation.

Information on toxicological effects:
Acute toxicity: Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIDECYL DIMETHYL AMMONIUM CHLORIDE (CAS 7173-51-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>2730 mg/kg</td>
</tr>
<tr>
<td>Ethanol (CAS 64-17-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Mouse</td>
<td>39 mg/l, 4 Hours</td>
</tr>
</tbody>
</table>
Components | Species | Test Results
---|---|---
Oral | Rat | LD50 6.2 g/kg

Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation | Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization
  Respiratory sensitization | Not a respiratory sensitizer.
  Skin sensitization | This product is not expected to cause skin sensitization.
Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity | Not classifiable as to carcinogenicity to humans.
  IARC Monographs. Overall Evaluation of Carcinogenicity | Not listed.
  US. National Toxicology Program (NTP) Report on Carcinogens | Not listed.

Reproductive toxicity | This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure | Not classified.
Specific target organ toxicity - repeated exposure | Not classified.
Aspiration hazard | Not an aspiration hazard.
Chronic effects | Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity | Very toxic to aquatic life with long lasting effects.

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<th>Test Results</th>
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</thead>
<tbody>
<tr>
<td>DIDECYL DIMETHYL AMMONIUM CHLORIDE (CAS 7173-51-5)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
  Aquatic | | |
  Fish | LC50 | White sturgeon (Acipenser transmontanus) 0.001 - 0.01 mg/l, 96 hours |
| Ethanol (CAS 64-17-5) | | |
  Aquatic | | |
  Crustacea | EC50 | Water flea (Daphnia magna) 7.7 - 11.2 mg/l, 48 hours |
  Fish | LC50 | Fathead minnow (Pimephales promelas) > 100 mg/l, 96 hours |
| Quaternary Ammonium Compounds, Benzyl-c12-16-alkyldimethyl, Chlorides (CAS 68424-85-1) | | |
  Aquatic | | |
  Acute | | |
  Crustacea | EC50 | Daphnia magna < 1 mg/l, 48 hours |

Persistence and degradability | No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential
  Partition coefficient n-octanol / water (log Kow)
    Ethanol | -0.31 |
    Nitrogen | 0.67 |

Mobility in soil | No data available.
Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
13. Disposal considerations

Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number
UN1950

UN proper shipping name
Aerosols, non-flammable, (each not exceeding 1 L capacity)

Transport hazard class(es)
Class
2.2
Subsidiary risk
- 
Label(s)
2.2

Packing group
Not available.

Environmental hazards

Marine pollutant
No

Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

Packaging exceptions
306

Packaging non bulk
None

Packaging bulk
None

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

DOT

General information
Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers: Ensure that containers are firmly secured. Ensure cylinder valve is closed and not leaking. Ensure valve outlet cap nut or plug (where provided) is correctly fitted. Ensure valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Ethanol (CAS 64-17-5) Listed.

SARA 304 Emergency release notification
Not regulated.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not regulated.

Superspund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance
Not listed.
SARA 311/312 Hazardous chemical
Classified hazard categories
Gas under pressure
SARA 313 (TRI reporting)
Not regulated.

Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.
Safe Drinking Water Act (SDWA)
FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
Ethanol (CAS 64-17-5)
Low priority
FIFRA Information
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals.

US state regulations
California Proposition 65
WARNING: California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

16. Other information, including date of preparation or last revision
Issue date 13-November-2017
Revision date 05-September-2018
Version # 04
HMIS® ratings
Health: 0
Flammability: 0
Physical hazard: 3
NFPA ratings
Health: 0
Flammability: 0
Instability: 3

Disclaimer
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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

Revision information
Physical and chemical properties: Flammability (solid, gas)
Toxicological Information: Toxicological Data
Transport Information: Agency Name, Packaging Type, and Transport Mode Selection
Regulatory Information: United States
Regulatory information: California Proposition 65
GHS: Classification