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

<table>
<thead>
<tr>
<th>Product code</th>
<th>30130-002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended use</td>
<td>Sanitizing Spray</td>
</tr>
<tr>
<td>Recommended restrictions</td>
<td>None known.</td>
</tr>
</tbody>
</table>

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
- Hazardous to the aquatic environment, long-term hazard

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, Benzyl-c12-16-alkyldimethyl Chlorides</td>
<td>68424-85-1</td>
<td>&lt;0.2</td>
<td></td>
</tr>
</tbody>
</table>
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.
Conditions for safe storage, including any incompatibilities

Level 1 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding
50°C/122 °F. Do not handle or store near an open flame, heat or other sources of ignition. Store in
tightly closed container. Store in a well-ventilated place. Stored containers should be periodically
checked for general condition and leakage. Store away from incompatible materials (see Section
10 of the SDS).

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>1900 mg/m3</td>
</tr>
<tr>
<td></td>
<td>1000 ppm</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>
<tr>
<td></td>
<td>1000 ppm</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>
<td>1900 mg/m3</td>
</tr>
<tr>
<td></td>
<td>1000 ppm</td>
</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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limit - upper (%)</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

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.

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

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Prolonged inhalation may be harmful.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No adverse effects due to skin contact are expected.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Direct contact with eyes may cause temporary irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Expected to be a low ingestion hazard.</td>
</tr>
</tbody>
</table>

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>

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

30130-002 Version #: 05 Revision date: 13-March-2019 Issue date: 13-November-2017

SDS US
Components | Species | Test Results
--- | --- | ---
Oral LD50 | Rat | 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.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
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.

Components | Species | Test Results
--- | --- | ---
DIDECYL DIMETHYL AMMONIUM CHLORIDE (CAS 7173-51-5)
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 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 |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Packaging exceptions | 306 |
| Packaging non bulk | None |
| Packaging bulk | None |

IATA

| UN number  | UN1950 |
| UN number  | UN1950 |
| UN proper shipping name | Aerosols, non-flammable |
| Transport hazard class(es) |
| Class | 2.2 |
| Subsidiary risk | - |
| Packing group | Not available. |
| Environmental hazards | Marine pollutant |
| ERG Code | 2L |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |

Other information

| Passenger and cargo aircraft | Allowed with restrictions. |
| Cargo aircraft only | Allowed with restrictions. |

IMDG

| UN number  | UN1950 |
| UN number  | UN1950 |
| UN proper shipping name | AEROSOLS |
| Transport hazard class(es) |
| Class | 2.2 |
| Subsidiary risk | - |
| Packing group | Not available. |
| Environmental hazards | Marine pollutant |
| EmS | F-D, S-U |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |

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

Not established.
Per IATA DGR Special Provision A197, IMDG Code 2.10.2.7, and 49 CFR § 171.4(c), this product, as packaged, is not regulated as a Marine Pollutant due to package size. Regulated as Marine Pollutant if single or inner package size exceeds 5 liters and/or outer packaging exceeds 30kg.

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.

General information

15. Regulatory information

US federal regulations

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

Toxic Substances Control Act (TSCA)

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 listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
Yes

  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.
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
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 13-March-2019
Version # 05

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
Composition / Information on Ingredients: Disclosure Overrides
Transport Information: Material Transportation Information
Transport information: General information
Regulatory information: Safe Drinking Water Act (SDWA)