

# MICROBAN 24<sup>®</sup> Sanitizer

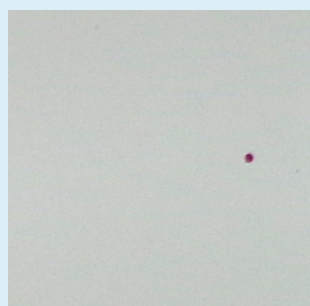
Microban 24<sup>®</sup> sanitizer is an EPA approved aerosol sanitizer that provides 24-hour protection against bacterial growth on hard surfaces. Microban 24 also provides antifungal protection for up to 7 days on hard surfaces and 28 days on fabric. Microban 24 does not contain bleach, phosphates or nonylphenol ethoxylates and complies with VOC regulations in all 50 states.

Concentration	Ready to Use
<b>Size</b>	15 oz net weight
<b>Active</b>	0.20% Quaternary Ammonium Compounds
<b>Propellant</b>	Nitrogen (120 psig)
<b>pH</b>	8.5 - 9.5
<b>Fragrance Options</b>	Citrus, Fresh, Lemon, Lemon Lime, Crisp Linen, Clean, Lavender, Orange, Tangerine, Spring Garden and Mint <i>Additional descriptors available</i>
<b>Storage</b>	Store in original container in areas inaccessible to small children. Do not puncture or incinerate.

## Disinfection

Contact Time	Bacteria
1 minute	<i>Pseudomonas aeruginosa</i>
	<i>Salmonella enterica</i>
	<i>Staphylococcus aureus</i>
	<i>Escherichia coli</i> O157:H7
	<i>Enterobacter aerogenes</i>
	<i>Listeria monocytogenes</i>
	Methicillin Resistant <i>Staphylococcus aureus</i> - MRSA
	<i>Streptococcus pyogenes</i>
Viruses	
1 minute	Human Coronavirus
	Herpes Simplex virus type 1
	Herpes Simplex virus type 2
	Influenza A H1N1 [2009 H1N1]
	Respiratory Syncytial Virus [RSV]
	Human Immunodeficiency virus type 1 [(HIV-1)]
	Hepatitis B virus (Duck Hepatitis B surrogate)
	Hepatitis C virus (Bovine Viral Diarrhea virus surrogate)
5 minutes	Rotavirus
	Rhinovirus [type 39]
	Norovirus (Feline Calicivirus as surrogate)
Fungi	
5 minutes	<i>Trichophyton interdigitale</i>
	<i>Aspergillus niger</i>

### Microban 24 vs Leading Disinfectant after Multiple Touches\*



PROTECTION THAT LIVES ON  
**MICROBAN**

Bacteria recovered from surface treated with Microban 24 after 48 touches.



Bacteria recovered from a surface treated with a leading disinfectant after 48 touches.

## Sanitization

Contact Time	Hard, Non-porous Non-Food Contact Surfaces
10 seconds	<i>Enterobacter aerogenes</i>
	<i>Staphylococcus aureus</i>
24 Hours Residual Sanitization	
5 minutes	<i>Enterobacter aerogenes</i>
	<i>Staphylococcus aureus</i>
Soft Surface [Spot] Sanitization	
1 minute	<i>Enterobacter aerogenes</i>
	<i>Staphylococcus aureus</i>

## Mildew Fungistat

Duration	Hard Surfaces
7 days	<i>Aspergillus niger</i>
Fabric	
28 days	<i>Aspergillus niger</i>
	<i>Penicillium variable</i>

## 1. Identification

<b>Product identifier</b>	<b>Protection That Lives On Microban Professional Brand 24 Hour Keeps Killing 99% of Bacteria For Up To 24 Hours Sanitizing Spray</b>	
<b>Other means of identification</b>		
<b>Product code</b>	30130-002	
<b>Recommended use</b>	Sanitizing Spray	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Company name</b>	Microban Products Company	
<b>Address</b>	11400 Vanstory Drive Huntersville, NC 28078 USA	
<b>Telephone</b>	704-875-0806	
<b>Email</b>	infoleads@microban.com	
<b>Emergency phone number</b>	(24 hr Emergency) 1-800-535-5053 or 1-352-323-3500	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Gases under pressure	Liquefied gas
<b>Health hazards</b>	Not classified.	
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



<b>Signal word</b>	Warning
<b>Hazard statement</b>	Contains gas under pressure; may explode if heated. Very toxic to aquatic life with long lasting effects.
<b>Precautionary statement</b>	
<b>Prevention</b>	Avoid release to the environment. Observe good industrial hygiene practices.
<b>Response</b>	Collect spillage. Wash hands after handling.
<b>Storage</b>	Protect from sunlight. Store in a well-ventilated place.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Nitrogen		7727-37-9	<1
Quaternary Ammonium Compounds, Benzyl-c12-16-alkyldimethyl, Chlorides		68424-85-1	<0.2

Chemical name	Common name and synonyms	CAS number	%
DIDECYL DIMETHYL AMMONIUM CHLORIDE		7173-51-5	<0.1
Ethanol		64-17-5	<0.1

#### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	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.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	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.
<b>Methods and materials for containment and cleaning up</b>	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.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	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

<b>Precautions for safe handling</b>	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.

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Ethanol (CAS 64-17-5)	PEL	1900 mg/m3 1000 ppm

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Ethanol (CAS 64-17-5)	STEL	1000 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Ethanol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm

**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**

<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	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**

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	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.

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
-------------------	----------------	---------------------

---

DIDECYL DIMETHYL AMMONIUM CHLORIDE (CAS 7173-51-5)

**Acute****Dermal**

LD50	Rabbit	2730 mg/kg
------	--------	------------

Ethanol (CAS 64-17-5)

**Acute****Inhalation**

LC50	Mouse	39 mg/l, 4 Hours
------	-------	------------------

Components	Species	Test Results
<b>Oral</b> LD50	Rat	6.2 g/kg
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.	
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	Not classifiable as to carcinogenicity to humans.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Not listed.		
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>		
Not listed.		
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>		
Not listed.		
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not an aspiration hazard.	
<b>Chronic effects</b>	Prolonged inhalation may be harmful.	

## 12. Ecological information

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

Components	Species	Test Results
<b>DIDECYL DIMETHYL AMMONIUM CHLORIDE (CAS 7173-51-5)</b>		
<b>Aquatic</b>		
Fish	LC50	White sturgeon (Acipenser transmontanus) 0.001 - 0.01 mg/l, 96 hours
Ethanol (CAS 64-17-5)		
<b>Aquatic</b>		
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)		
<b>Aquatic</b>		
<i>Acute</i>		
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

<b>Disposal instructions</b>	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.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	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).
<b>Contaminated packaging</b>	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

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, non-flammable, (each not exceeding 1 L capacity)
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.2
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.2
<b>Packing group</b>	Not available.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Packaging exceptions</b>	306
<b>Packaging non bulk</b>	None
<b>Packaging bulk</b>	None

#### IATA

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, non-flammable
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.2
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not available.
<b>Environmental hazards</b>	No
<b>ERG Code</b>	2L
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed with restrictions.
<b>Cargo aircraft only</b>	Allowed with restrictions.

#### IMDG

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	AEROSOLS
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.2
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not available.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No
<b>EmS</b>	F-D, S-U
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not established.

DOT



IATA; IMDG



#### General information

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.

## 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.



**Safe Drinking Water Act (SDWA)** None known.

**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](http://www.P65Warnings.ca.gov).

**16. Other information, including date of preparation or last revision**

**Issue date** 13-November-2017

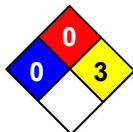
**Revision date** 13-March-2019

**Version #** 05

**HMIS® ratings** Health: 0  
Flammability: 0  
Physical hazard: 3

**NFPA ratings** Health: 0  
Flammability: 0  
Instability: 3

**NFPA ratings**



**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)