



SAFETY DATA SHEET

Issue Date 23-Mar-2015

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Version 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name MICROBAN X-590 INSTITUTIONAL SPRAY
Product Code LBD590XMLB-590
Customer Code 221552000, 22155300

Other means of identification

Recommended use of the chemical and restrictions on use

Recommended Use Professional Disinfectant
Uses advised against Use only as stated on label.

Details of the supplier of the safety data sheet

Manufactured For / Distributed By

ProRestore Products
1016 Greentree Rd. #115
Pittsburgh, PA 15220

800-932-3030

Emergency telephone number

24 Hour Emergency Phone Number 1-800-535-5053

2. HAZARDS IDENTIFICATION

Classification

| | |
|--|----------------|
| Acute toxicity - Oral | Not classified |
| Serious eye damage/eye irritation | Category 2 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Flammable liquids | Category 3 |

Label elements

Emergency Overview

Warning

Hazard statements

Causes serious eye irritation
May cause drowsiness or dizziness

Flammable liquid and vapor

**Precautionary Statements - Prevention**

- Avoid breathing dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Keep away from heat/sparks/open flames/hot surfaces. — No smoking
- Keep container tightly closed
- Ground/bond container and receiving equipment
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Use only non-sparking tools
- Take precautionary measures against static discharge
- Wear protective gloves/protective clothing/eye protection/face protection
- Keep cool

Precautionary Statements - Response

- Specific Treatment (See Section 4 on the SDS)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Drink plenty of water.

In case of fire: Use CO₂, dry chemical, or foam for extinction.

Precautionary Statements - Storage

- Store in a well-ventilated place. Keep container tightly closed
- Store locked up

Precautionary Statements - Disposal

- Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)**Other Information**

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No. | Weight-% | Trade Secret |
|-----------------------|----------|----------|--------------|
| 2-Propanol | 67-63-0 | 10-30 | * |
| Benzethonium Chloride | 121-54-0 | .1-1 | * |
| 2-Hydroxybiphenyl | 90-43-7 | .1-1 | * |

4. FIRST AID MEASURES

First aid measures**General advice**

Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). If symptoms persist, call a physician.

| | |
|---------------------|---|
| Skin Contact | Wash off immediately with plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. |
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. |
| Inhalation | Remove to fresh air. If symptoms persist, call a physician. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. |
| Ingestion | Immediate medical attention is not required. Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. |

Self-protection of the first aider Remove all sources of ignition. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

| | |
|-----------------|--|
| Symptoms | Any additional important symptoms and effects are described in Section 11: Toxicology Information. |
|-----------------|--|

Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|------------------------|
| Note to physicians | Treat symptomatically. |
|---------------------------|------------------------|

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| | |
|-----------------------------|---|
| Personal precautions | Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. |
|-----------------------------|---|

Environmental precautions

| | |
|----------------------------------|---|
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. |
|----------------------------------|---|

Methods and material for containment and cleaning up

| | |
|--------------------------------|--|
| Methods for containment | Prevent further leakage or spillage if safe to do so. |
| Methods for cleaning up | Pick up and transfer to properly labeled containers. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Soak up with inert absorbent material. |

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place.
Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-----------------------|-------------------------------|---|---|
| 2-Propanol 67-63-0 | STEL: 400 ppm TWA: 200 ppm | TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³ | IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³ |

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers, Eyewash stations & Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).
Skin and body protection No special technical protective measures are necessary.
Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
General Hygiene When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | |
|----------------|--------------------------|
| Physical state | Liquid |
| Appearance | Opaque |
| Color | Green |
| Odor | Pleasant |
| Odor threshold | No Information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|-------------------------------|--------------------------|-------------------------|
| pH | 6.5 - 7.5 | |
| Specific Gravity | .96 | |
| Viscosity | Water Thin | |
| Melting point/freezing point | No Information available | |
| Flash point | 27 °C 77 °F | |
| Boiling point / boiling range | No Information available | / |
| Evaporation rate | Same as water | |
| Flammability (solid, gas) | | |
| Flammability Limits in Air | | |
| Upper flammability limit: | No Information available | |
| Lower flammability limit: | No Information available | |
| Vapor pressure | No Information available | |
| Vapor density | No Information available | |
| Water solubility | Miscible in water | |
| Partition coefficient | No Information available | |
| Autoignition temperature | No Information available | |
| Decomposition temperature | No Information available | |

Other Information

| | |
|-----------------|-------|
| Density Lbs/Gal | 8 |
| VOC Content (%) | 25.29 |

10. STABILITY AND REACTIVITY

Reactivity

No data available

| | |
|------------------------------------|--|
| Stability | Stable under recommended storage conditions. |
| Possibility of Hazardous Reactions | None under normal processing. |
| Conditions to avoid | Heat, flames and sparks. |
| Incompatible materials | None known based on information supplied. |
| Hazardous Decomposition Products | None known based on information supplied. |

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| | |
|--------------|---|
| Inhalation | No data available. |
| Eye contact | Severely irritating to eyes. |
| Skin Contact | Prolonged contact may cause redness and irritation. |
| Ingestion | May be harmful if swallowed. |

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-----------------------|----------------------|-------------------------|---------------------------------------|
| 2-Propanol 67-63-0 | = 1870 mg/kg (Rat) | = 4059 mg/kg (Rabbit) | = 72600 mg/m ³ (Rat) 4 h |

| | | | |
|-------------------------------------|--|---|---|
| Octylphenol Ethoxylate 9036-19-5 | = 1700 mg/kg (Rat) = 4190 mg/kg (Rat) | - | - |
|-------------------------------------|--|---|---|

Information on toxicological effects

Symptoms No Information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No Information available.
Germ cell mutagenicity No Information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|------------------------------|-------|---------|-----|------|
| 2-Propanol 67-63-0 | - | Group 3 | - | X |
| 2-Hydroxybiphenyl 90-43-7 | - | Group 3 | - | - |

IARC (International Agency for Research on Cancer)
 Not classifiable as a human carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - Present

Reproductive toxicity No Information available.
STOT - single exposure No Information available.
STOT - repeated exposure No Information available.
Chronic toxicity Avoid repeated exposure.
Target organ effects EYES, Respiratory system, Skin.
Aspiration hazard No Information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|------------------------------|---|---|--|
| 2-Propanol 67-63-0 | 1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h Desmodesmus subspicatus mg/L EC50 | 9640: 96 h Pimephales promelas mg/L LC50 flow-through 11130: 96 h Pimephales promelas mg/L LC50 static 1400000: 96 h Lepomis macrochirus µg/L LC50 | 13299: 48 h Daphnia magna mg/L EC50 |
| 2-Hydroxybiphenyl 90-43-7 | 0.85: 72 h Desmodesmus subspicatus mg/L EC50 | 3.4: 96 h Pimephales promelas mg/L LC50 flow-through 2.74: 96 h Lepomis macrochirus mg/L LC50 2.75: 96 h Oncorhynchus mykiss mg/L LC50 5.8: 96 h Poecilia reticulata mg/L LC50 static | 1 - 2.5: 48 h Daphnia magna mg/L EC50 Static |

Persistence and degradability No Information available.

Bioaccumulation No Information available.

| Chemical Name | Partition coefficient |
|---------------|-----------------------|
|---------------|-----------------------|

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | SARA 313 - Threshold Values % |
|----------------------|-------------------------------|
| 2-Propanol - 67-63-0 | 1.0 |

SARA 311/312 Hazard Categories

| | |
|--|-----|
| Acute health hazard | Yes |
| Chronic Health Hazard | No |
| Fire hazard | Yes |
| Reactive Hazard | No |
| Sudden release of pressure hazard | No |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains chemicals known to the state of California to cause cancer, or birth defects or other reproductive harm.

| Chemical Name | California Proposition 65 |
|-----------------------------|---------------------------|
| 2-Hydroxybiphenyl - 90-43-7 | Carcinogen |

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|------------------------------|------------|---------------|--------------|
| 2-Propanol 67-63-0 | X | X | X |
| 2-Hydroxybiphenyl 90-43-7 | X | X | X |
| Propylene Glycol 57-55-6 | X | - | X |

U.S. EPA Label Information

EPA Pesticide Registration Number 70385-4

EPA Statement

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. Following is the hazard information as required on the pesticide label:

EPA Pesticide Label

WARNING May be harmful if swallowed (inhaled or absorbed through the skin). Do not breathe vapors (dust or spray mist). Do not get in eyes, on skin or on clothing. May cause eye (and skin) irritation.

Additional information No Information available.

16. OTHER INFORMATION

HMIS

| Health hazards | Flammability | Physical hazards | Personal protection |
|----------------|--------------|------------------|---------------------|
| 2 | 3 | 0 | B |

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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.

End of Safety Data Sheet