The Original Green

Protocol

CA DIN 02209756 / US EPA 70467-3 / CH BAG#CHZB0163 / DE BAUA N-24586 / FDA D142277

Hard Surface Disinfectant – One Step

Contact Time < 1 Minute (less than)

Intermediate Level – Tuberculocidal, Bactericidal, Virucidal & Fungicidal in the presence of Bioburden

Colour: Green | Scent: Lime, Mango, Pepper

Available Sizes:

60 mL Travel Sprayer (case of 10) (01-SURF-060)
710 mL Spray Bottle (case of 4) (01-SURF-704)
5 L EcoPACK (01-SURF-005)
LeCLOTH™ Dry Wipes (Case of 300 Sheets 229 x 229mm/ 9"X9") (04-LCWR-300)

Purpose:

BioSURF™ provides fast effective disinfection in the presence of bioburden, while minimizing the impact on the Environment, People and Equipment.

Suitable for:

Hard surfaces, kennels and other veterinary devices, medical devices, instruments and prothesis including dental impressions.
Effective for cleaning and remediation of moulds and biofilms. Bacteriostatic when diluted in solutions like pumice.

Applied Asepsis Concepts:

Micrylium has a product development strategy based on what we call "Chair Theory". The four legs of a chair give it balance. Most products do not have this balance. They may be one minute kill on TB, but 15 minutes on Polio. The chair legs concepts in Microbiology are Mycobacteria, non-enveloped viruses, fungal spores and gram negative bacteria. Our kill times are measured as the longest time to cover all benchmarks. BioSURF™ disinfects effectively in heavy blood/saliva and protein environments. Halogens (Cl, Br, I), Quaternary Ammoniums and Peroxides are reactive with proteins limiting their ability to perform in many clinical settings.

Quality Commitment:

Our vision of asepsis holistically links the patient/client safety with the safety of professional staff. Our chemistry is based on antiseptics of pharma grade (USP EP BP NF) origin. Quality ingredients include biodegradable surfactants (many of which are plant based), USP grain derived absolute Ethanol and naturally derived scents. OECD 301D Tests conclude biodegradability (28 days). Our EcoPACK™ concept delivers fresh product (no Oxidation) and is fully recyclable. (EVOH bag/Recycled Corrugated Box)

Instructions for Use:

1) Surface Spray - remove trigger from BioSURF™ spray bottle and dispense BioSURF™ into the bottle from the EcoPACK™ spigot. Replace trigger. Spray BioSURF™ lightly as a mist over surfaces to be disinfected. Wait one minute then wipe thoroughly with LeCLOTH™ or disposable paper towel. Micrylium recommends using LeCLOTH™ biodegradable sheet for ethanol disinfectants – 229 x 229 mm (9"x 9").

2) Surface Wipe Options - Create your own wet wipes (Recommended amount 8-10mL)
a.) Carefully dispense BioSURF™ from the EcoPACK™ spigot directly onto a LeCLOTH™ sheet.
b.) BioSURF™ solution can be sprayed from the sprayer directly onto the sheet.
c.) Fold a LeCLOTH™ sheet and place in a small bowl or a measuring cup. Dispense BioSURF™ (8-10mL per wipe) from the EcoPACK™ spigot. Wipe surface thoroughly until wet. Let sit for one minute.

Clinicians Report: https://www.cliniciansreport.org/uploads/files/1765/BioSURF-course-H0.pdf
Protocol for disinfection in the presence of visible body fluid from known Infectious host.
Rella Christensen's technique: Wet LeCLOTH™ wipe with BioSURF™ solution. Wipe back and forth, then back and forth at 90°.
Let sit for 3 minutes. Repeat procedure for another 3 minutes.

Caution: Use with care as the product is Flammable

Precautions:

USE FULL STRENGTH – Do Not Dilute. RTU (Ready To Use Formulation)
Do not use on surfaces that undergo rapid temperature changes.
AVOID CONCURRENT USE WITH BLEACH - Staining (yellow/brown) can occur. On some surfaces, including uniforms, this can be removed by soaking with Borax (Sodium Borate).
CAUTION - NOT FOR USE on acrylic latex painted surfaces or vinyl upholstery.
Avoid longer than 10 minutes contact time with rubber or silicone materials.

Helpful Tips:

Pre-cleaning can spread bacterial contamination. BioSURF™ contains surfactants/detergents that clean and penetrate microbial contamination in one step. If your protocol requires two step cleaning & disinfection (or there is visible bioburden), use BioSURF™ for both steps to minimize risk to staff and reduce the risk of vector transmission.
With frequent use some residue may accumulate. BioSURF™ contains surfactants and although harmless, this residue should be removed weekly with a water moistened LeCLOTH™ or microfiber towel. See our website for specific details: www.micrylium.com/products

Micrylium
PROFESSIONAL DISINFECTION

Revision Date: Nov 27, 2023 v2.0

KINDER SAFER FASTER

BioSURF™ SDS

1. IDENTIFICATION

Product Name	BioSURF		**Manufacturer**	Micrylium Laboratories Inc.	
Registration	**CAN DIN**	02209756	**Address**	5000M Dufferin Street, Toronto, Canada, M3H 5T5 www.micrylium.com	
	US EPA	70467-3			
	US FDA	D142277			
	CH BAG	CHZB0163			
Indication	Hospital hard surface disinfectant		**Phone**	416-667-7040	
			Fax	416-667-0071	
Emergency Phone #	**CHEMTREC**		1-800-424-9300	**CANUTEC**	1-613-996-6666

2. HAZARD IDENTIFICATION

Symbol Pictogram		**Signal Word**	Warning
		Symbol	Flame
Hazard Classification	Flammable Liquid Category 3		
Health Hazard	Use Care (See Precautionary and Hazard Statements)	**Environmental Hazards**	Biodegradeable (OECD 301D)

Precautionary & Hazard Statements

P102: Keep out of reach of children.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
P301: IF SWALLOWED: Drink large quantities of water or milk.
P305: IF IN EYES: Flush eyes with large quantities of water.

H226: Flammable liquid and vapour.
H302: Harmful if swallowed.
H317: May cause an allergic skin reaction.
H336: May cause drowsiness or dizziness.

3. COMPOSITION

Chemical	CAS #	LD-50 (Oral, mg/kg) - Rat	Concentration (%)
Ethanol	64-17-5	7,060	70.0%
Chlorhexidine Gluconate	18472-51-0	2,000	0.2%

4. FIRST AID MEASURES

Inhalation	If breathing is difficult, remove individual to fresh air.	**Ingestion**	Drink large quantities of milk or water. Do not induce vomiting.
Skin Contact	May cause dryness or irritation with prolonged contact.	**Eye Contact**	Flush with plenty of water.

Most Important Symptoms and Effects (Acute and Delayed)

May cause acute mild drowsiness, respiratory and/or eye irritation.

Indication of any Immediate Medical Attention and Special Treatment Needed

Not Applicable.

5. FIREFIGHTING MEASURES

Use dry chemical, foam, or CO_2. Use water spray to disperse vapours if needed. **Firefighters**: As with any fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE

Use all means to prevent spillage. No other specific measures are necessary, provided vapours are not permitted to build up.

7. HANDLING & STORAGE

Store in a cool, dry, well-ventilated location. Keep away from heat, sparks and flames. DO NOT mix with bleach or peroxides. Storage and Transport: 0°- 30°C

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Respiratory protective equipment may be required if vapours are not permitted to escape. No other specific measures required.

Component	ACGIH TLV	OSHA PEL	NIOSH	CCHOS
Ethanol	STEL: 1000 ppm	(Vacated) TWA: 1000 ppm (Vacated) TWA: 1900 mg/m^3	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m^3	TWA: 1000 ppm TWA: 1900 mg/m^3

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Colour	Odour	Solidification point	Boiling point OECD 103	Flash Point ASTM D56	Density g/ml@ 25°C	pH	Kinematic Viscosity@ 23°C
Transparent, Liquid	Green	Lime, Pepper, Mango	-25°C	79°C	23°C	.862	9.5	2.43 mm²/s

10. STABILITY AND REACTIVITY

Stable under normal conditions. **Incompatibility**: Strong oxidants, acid chlorides, silver salts **Decomposition:** Products: CO_2, CO

11. TOXICOLOGICAL DATA

Acute Dermal Toxicity	LD_{50} >5000 mg/kg Not found to be dermal sensitizer	**Acute Oral**	LD_{50} >5000 mg/kg
Ocular Irritation	0.0 severity after 7 days	**Acute Inhalation Toxicity**	LC_{50}: 2.3 mg/L Rat
Reproductive Hazards	Ingestion/inhalation can be harmful. (TDLo 300mg/Kg Ethanol)	**Carcinogenicity**	Ingestion of Ethanol IARC Group1.

Tests Performed by Product Safety Labs, Dayton, NJ USA

12. ECOLOGICAL INFORMATION

Surfactants are readily biodegradable in soil and water. Persistence unlikely based on available data.

Ethanol	EC50 (72h) = 275 mg/L (Chlorella vulgaris)	Fathead minnow (Pimephales promelas) LC50 = 14200 Mg/L/96h	Photobacterium Phosphoreum:EC50 = 34634 Mg/L/30 min Photobacterium Phosphoreum:EC50 = 35470 Mg/L/5 min	EC50 = 9268 mg/L/48h EC50 = 10800 mg/L/24h

13. DISPOSAL CONSIDERATIONS

Domestic. Dilute 4:1 with water. This product is flammable.

14. TRANSPORT INFORMATION

Emergency Response Guide #127

Land	Sea	Air (IATA)
Hazard Class 3	Hazard Class 3	Hazard Class 3
UN 1170 Packaging Group III	UN 1170 Packaging Group III	UN 1170 Packaging Group III
Limited Quantity **5L** 	Limited Quantity **5L** 	Limited Quantity **1L** 

15. REGULATORY INFORMATION

TSCA – No reporting required.

CERCLA – No hazardous pollutants or ozone depletion.

16. OTHER INFORMATION

The information and recommendations contained herein are based on information believed to be correct.
It is offered in good faith, without guarantee. Micrylium Laboratories Inc. make no warranty expressed or implied.