

BioMERS™



1 MINUTE
CONTACT TIME

FASTEST HOSPITAL LEVEL IMMERSION DISINFECTANT

BioMERS™ is a ready-to-use immersion disinfectant bath ideal to pre-clean and disinfect non-critical and semi-critical devices prior to sterilization. While other immersion baths can take 40 to 90 minutes to reach a tuberculocidal level, BioMERS™ achieves all four benchmarks of disinfection in just one minute. BioMERS™ will not corrode devices or damage drains. Orange and mint scented.



DIN 0221071

VIRUCIDAL • BACTERICIDAL • FUNGICIDAL • TUBERCULOCIDAL

FASTER



ONE-STEP Disinfection

Clean & disinfect in one step enabling quicker turn around times and less product wastage.



1 Minute Contact Time

Fast broad spectrum instrument disinfectant kill time across all four pathogen categories.



Broad Spectrum Disinfectant

Effective against TB, HBV, HCV, HIV, STAPH, COVID-19, MRSA, Fungi & more.

SAFER



Non-Corrosive

Will not corrode metals, even when chrome, stainless steel, carbide steel, brass or aluminum instruments are mixed.



Non-Toxic

Does not contain Glutaraldehydes nor corrosive peroxides leading to greater protection for both staff and equipment.



Safer for Users

Does NOT contain Quats, phenols, peroxides or aldehydes. No PPE necessary. Is safe on skin for disinfecting minor cuts and abrasions.

KINDER



Environmentally Friendly

All products are made with biodegradable, plant-based ingredients.



Certified Biodegradable

All ingredients are USP Pharma grade and/or food grade quality.



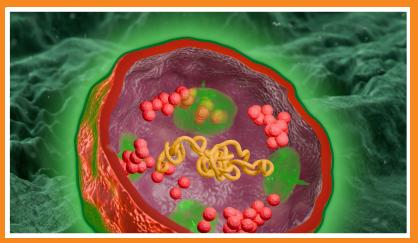
Recyclable Packaging

Bag-in-Box packaging flattens for disposal and is made of environmentally friendly materials.



FASTEST HOSPITAL LEVEL IMMERSION DISINFECTANT

THE SURFOL



SurfOL, Micrylium's proprietary surfactant, eliminates the air between the disinfectant and the surface to be cleaned. This allows for the immediate contact of the disinfectant and the flattened pathogen. **The result is a faster kill time.**

ABSORPTION



Plastic items such as splints, dentures, x-ray holders or cheek retractors, when soaked absorb 2-8% by weight of the disinfectant. Mucosal or skin irritation such as dermatitis and stomatitis can be caused by absorption of aldehydes, chlorines or phenols. Using BioMERS™ (plant-based formulation) **eliminates** this risk.

VERSATILE



BioMERS™ is an instrument holding bath that can be used for disinfecting jewelry, dentures, mouth-guards and splints. To ensure that the solution contains the appropriate amount of active ingredient (ethanol), use a hydrometer daily. The reading should be .867 (+-.02 at 20°).

HOW TO USE



Use full strength. Dispense BioMERS™ into a covered container and immerse instruments so that bio burden does not harden. Keep lid on to prevent evaporation.



Immerse objects (glass, metal, or plastic) and instruments (mixed metals) for a minimum of 1 minute. For plastics, silicone, and acrylic a maximum of 10 minutes immersion is recommended.



Stainless steel instruments can be left for up to 5 days in a closed bath or container. Avoid overnight soaking of rubber, non-crosslinked plastics or painted items.



BioMERS™ may be used chairside/bedside as a pre-soak for instruments to reduce risk prior to transporting them to sterilization area. BioMERS™ may also be used on heavily soiled devices or devices which have been contaminated with inks or oils to clean them prior to sterilization.



Once disinfected, rinse with water and dry. Then place in an enzymatic detergent bath (Micrylium BioSON™) for 10 minutes before sterilization.



The solution should be replaced when dirty, or when the level has reduced by more than 5% or every ten to fourteen days. This can also be monitored by a hydrometer (glass specific gravity instrument) as BioMERS™ has a relative density of .866 when compared with water at 1. The effective range is .860 to .890 SG. Best practice is Class B sterilization.

PRODUCT SPECIFICATION DATA

Item Number	Product Description	Packaging
02-MERS-001	BioMERS™ 1L Bag-in-Box RTU	1 Box
02-MERS-005	BioMERS™ 5L Bag-in-Box RTU	1 Box

CUSTOMER REVIEWS



"We've been using BioMERS™ for over 10-years as an instrument pre-soak. It does not damage the protective coating on our instruments and has saved us thousands of dollars from having to replace instruments too quickly."

Donna F., West Park Spa, Alberta

BMCA4.31.10.25



Manufactured By
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THE CHAIR THEORY



Micrylium's product development strategy is based on **"The Chair Theory"**. The four legs of the chair, which keep it balanced, are the four major categories of pathogens. The kill times advertised on competitor products reflect the pathogens with the fastest results. For example; competitors may achieve a 1-minute kill on TB and 15 minutes on Polio-virus but advertise only 1-minute. **We advertise a kill time that balances the kill rates of all 4 pathogens.**

EFFECTIVENESS



BioMERIS™ disinfects effectively in **heavy blood/saliva and protein environments**. Halogens (Cl, Br, I), Quaternary Ammoniums and Peroxides are ineffective against human blood proteins which limit their ability to effectively destroy pathogens.

PRECAUTIONS



Use full strength. Do not dilute. Ready-to-use formulation. Do not use on surfaces that undergo rapid temperature changes. Avoid concurrent use with bleach. Not for use on acrylic latex, painted surfaces or vinyl upholstery. Avoid longer than 10-minutes contact time with rubber or silicone materials. Use with care as product is flammable.



CONTACT TIME

Pathogen Type	Strain	Effective Contact Time
Bacteria	Salmonella choleraesuis (ATCC 10708)	10 seconds
Bacteria	Staphylococcus aureus (ATCC 6538)	10 seconds
Bacteria	Pseudomonas aeruginosa (ATCC 15442)	10 seconds
Bacteria	Bacillus subtilis (Sporicidal activity)(ATCC 19659)	2 hours
Bacteria	Bacillus subtilis (ATCC 6633)	2 hours
Bacteria	Bacillus stearothermophilis (Sporicidal activity) (ATCC 7953)	2 hours
Bacteria	Geobacillus stearothermophilus (ATCC 12980)	2 hours
Bacteria	Escherichia coli (NCTC 10541)	20 seconds
Fungi	Trichophyton menghini ATCC 12106	20 seconds
Fungi	Trichophyton mentagrophytes (ATCC 9533)	10 seconds
Mycobacterium	Mycobacterium smegmatis (*Tuberculocidal activity) (PN 1034)	60 seconds
Mycobacterium	Mycobacterium bovis BCG (5% soil/bioburden)	60 seconds
Mycobacterium	Mycobacterium terrae (ATTC 15755) (5% soil)	60 seconds

Note: Initial Formulation Batch (aged 60 days) tested on 60 replicates as indicated in AOAC method 955.15 for confidence level of 95%. Each Production Batch is tested with 10 replicates (0% failure) to monitor ongoing quality control specifications for each product.

* Testing performed at Nucro-Technics Laboratory, 2000 Ellesmere Road, Unit 16 Scarborough, Ontario

All other tests performed at Micrylium Laboratories, 117 Dolomite Drive, North York, Ontario



1. IDENTIFICATION										
Product Name		BioMERS™		Manufacturer	Micrylium Laboratories Inc.					
Registration	CAN DIN	02210711			5000M Dufferin Street, Toronto, Canada, M3H 5T5 www.micrylium.com					
	US FDA	D142278								
Indication		Immersion disinfectant / cleaner		Phone	416-667-7040					
				Fax	416-667-0071					
Emergency Phone #		CHEMTRAC		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					
Transparent, Liquid	Orange	Orange,Peppermint, Eucalyptus	-25°C	81°C	23°C					
Density g/ml @ 25°C										
.864										
pH										
9.5										
Kinematic Viscosity@ 23°C										
2.24 mm ² /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.										
Effective Date: 2025/10/31			Document: MERS 2.0							