

BioSON™

MULTI-PURPOSE ENZYMATIC DETERGENT

BioSON™ is an ultra-concentrated universal device detergent. Designed to enhance the cavitation of cleaning bubbles when used in ultrasonic baths. This unique formula contains four enzymes that rapidly break down bioburden. It contains antimicrobial additives to reduce the odours and bacterial aerosols created by the bath. It can also be a very effective instrument pre-soak and multi-purpose detergent. Pleasant citrus scent.



DIN 02208709

BACTERICIDAL & FUNGICIDAL

FASTER



Multi-Purpose

Mixes instantly for use in ultrasonic and washing machines, also for floors and carpets. Concentrated formula for easy storage.



Efficiency

Replaces other specific ultrasonic cleaners like tartar and stain remover. Quicker, effective detergent.



Universal Detergent

Effective against STAPH, Pseudomonas aeruginosa, Salmonella choleraesuis & more.

SAFER



Non-Toxic

Contains no quats, phenols or aldehydes. Does not contain recently noted hormone disrupting surfactants based on Nonyl-phenyl Ethoxylates.



Non-Corrosive

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



Enzymatic Formula

BioSON™'s four Enzyme formula destroys harmful debris ensuring proper disinfection.

KINDER



Chelating Agent

BioSON™'s chelation technology works to separate the debris helping to prolong the effectiveness and useful life of the solution.



Environmentally Friendly

Contains natural source biodegradable surfactants and complies with all sewer regulations.



Eco-Friendly Disposal

Leftover solution can be used in drains or plaster sinks to reduce microbes and unpleasant odours.

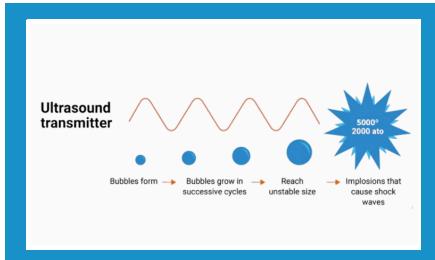


ULTRASONIC



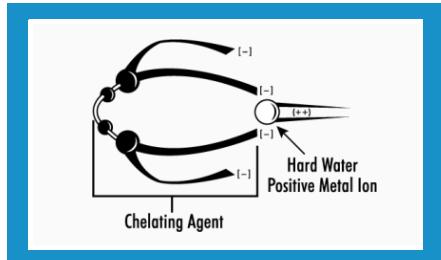
Ultrasonic cleaning works by high-frequency sound waves transmitted through liquid to scrub clean the surface of immersed items. The high-frequency sound waves (40 kHz) agitate the liquid solution of BioSON™ and cause the cavitation of solution molecules.

CAVITATION



Cavitation in ultrasonic units is the formation and collapse of tiny bubbles in a liquid due to alternating high and low-pressure cycles from high-frequency sound waves. This acoustic cavitation process creates powerful micro-jets and shockwaves as the microscopic bubbles implode, which effectively dislodge contaminants from the surfaces of objects submerged in the liquid.

CHELATING AGENTS



Chelation is a process where a chelating agent in BioSON™ binds itself to the metal atoms on the instruments being cleaned. It then pulls the foreign matter to the bottom of the container making it easier to dispose of and lengthening the life of the Ultrasonic solution. Competing brands that do not use a chelating agent catalyst require their solutions to be changed more often.

HOW TO USE

BEGIN BY CAREFULLY DISPENSING BIOSON™ FROM THE ECOPACK™ SPIGOT DIRECTLY INTO A MEASURING CUP.

1



Dilution Ratio: 1:40
Add 25mL of BioSON™ to up to 1.0L of warm water in the ultrasonic bath. Set timer for 10 minutes.

2



Dilution Ratio: 1:80
Add 12mL for every 1L of water into Carpet Steam cleaners to freshen carpets

3



Dilution Ratio: 1:100
10mL for every 1L of water for washing floors and walls.

4



Dilution Ratios: 1:200
Small load 125 mL (1/2 cup)
Medium load 250 mL (1 cup)
Large load 500 mL (2 cups)
Compatible with HE (High Efficiency) washing machines.

5



Soak the items below for 30 minutes prior to washing.
Dilution Ratios:
Clothing
25mL for every 1L of water.
Heavily Soiled Items
50mL for every 1L of water.

6



When to change solution:
Once solution becomes cloudy or every 5 days

PRODUCT SPECIFICATION DATA

Item Number	Product Description	Packaging
02-SON2-001	BioSON™ 1L Bag-in-Box	1 Box
02-SON2-005	BioSON™ 5L Bag-in-Box	1 Box

CUSTOMER REVIEWS



"We use BioSON™ in our office as an ultrasonic solution. We love its multi-purpose function. Pre-soaking blood stained scrubs with BioTEXT and then washing with BioSON™ always results in our clothes coming out clean, disinfected and smelling fresh. BioSON™ is our go-to detergent for all areas of our office."

Rob P., Pet Plus Veterinary Clinic, Toronto, Ontario

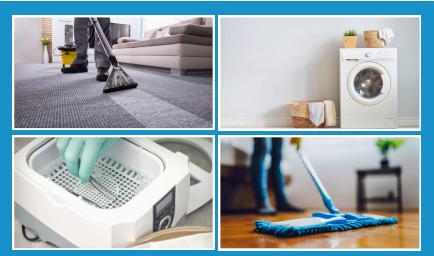




ENZYMATIC

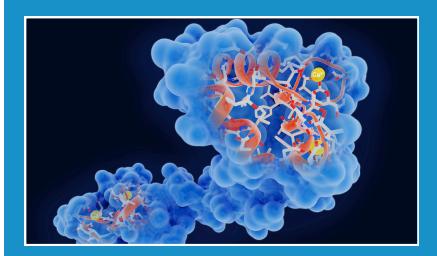
MULTI-PURPOSE DETERGENT

MULTI-PURPOSE



BioSON™ is recommended for all Ultrasonic cleaning applications as well as for general detergency and Enzymatic cleaning. Other applications include laundry, carpet and floor cleaning.

ENZYMATIC ACTION



BioSON™ four Enzyme-based formula contains Enzymes designed to destroy lipids, oils, proteins, cellulose, starches and carbohydrates.

THE CONCEPT



Our goal is to provide solutions, not just to kill or inactivate, but to clean, protect and minimize the impact of regular sustained usage (people, equipment, professional and natural environments). BioSON™ contains biodegradable surfactants, biological enzymes and naturally derived scents.

CONTACT TIME

Pathogen Type	Strain	Effective Contact Time
Bacteria	Salmonella choleraesuis (ATCC 10708)	10 minutes
Bacteria	Pseudomonas aeruginosa (ATCC 15442)	10 minutes
Bacteria	Staphylococcus aureus (ATCC 6538)	10 minutes
Bacteria	Escherichia coli (NCTC 10541) (10% soil)	10 minutes
Fungi	Trichophyton mentagrophytes (ATCC 9533)	10 minutes
Fungi	Trichophyton menghini (ATCC 12106) (10% soil)	10 minutes

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	BioSON™			Manufacturer	Micrylium Laboratories Inc.															
Registration	CAN	Class I		Address	5000M Dufferin Street, Toronto, Canada, M3H 5T5 www.micrylium.com															
	US FDA	D142279																		
Indication	Enzymatic detergent concentrate			Phone	416-667-7040															
Emergency Phone #	CHEMTRAC			Fax	416-667-0071															
	1-800-424-9300			CANUTEC	1-613-996-6666															
2. HAZARD IDENTIFICATION																				
Symbol Pictogram				Signal Word	Irritant															
				Symbol	Exclamation mark															
Hazard Classification	Not Applicable																			
Health Hazard	No Serious Health Hazards			Environmental Hazards	Biodegradeable															
Precautionary & Hazard Statements	<p>P102: Keep out of reach of children. P301: IF SWALLOWED: Drink large quantities of water or milk. P305: IF IN EYES: Flush eyes with large quantities of water.</p> <p>H302: Harmful if swallowed. H317: May cause an allergic skin reaction. H320: Causes eye irritation.</p>																			
3. COMPOSITION																				
Chemical		CAS #		LD-50 (Oral, mg/kg)		Concentration (%)														
Chlorhexidine Gluconate		18472-51-0		2,000 (Rat)		1.70%														
4. FIRST AID MEASURES																				
Inhalation	If breathing is difficult, remove individual to fresh air.			Ingestion	Drink large quantities of milk or water to dilute. Do not induce vomiting.															
Skin Contact	If irritation occurs, rinse area thoroughly			Eye Contact	Flush with plenty of water for 20 minutes.															
Most Important Symptoms and Effects (Acute and Delayed)																				
Not Applicable.																				
Indication of any Immediate Medical Attention and Special Treatment Needed																				
Not Applicable.																				
5. FIREFIGHTING MEASURES																				
Non-flammable.																				
6. ACCIDENTAL RELEASE																				
Use a paper towel to absorb and dispose with domestic garbage.																				
7. HANDLING & STORAGE																				
Store in a cool, dry, well-ventilated location. DO NOT mix with bleach or peroxides. Storage and Transport: 0°- 30°C																				
8. EXPOSURE CONTROLS/ PERSONAL PROTECTION																				
No specific measures required.																				
9. PHYSICAL AND CHEMICAL PROPERTIES																				
Physical State	Colour	Odour	Solidification point	Boiling point OECD 103	Flash Point	Density g/ml @ 25°C	pH	Kinematic Viscosity												
Transparent, Liquid	Light Blue	Citrus	-8°C	105°C	N/A	1.05	10.0	80 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	Not found to be dermal sensitizer			Acute Oral	N/A															
Ocular Irritation	0.0 severity after 7 days			Acute Inhalation Toxicity	N/A															
Reproductive Hazards	None			Carcinogenicity	None															
12. ECOLOGICAL INFORMATION																				
Surfactants are readily biodegradable in soil and water.																				
13. DISPOSAL CONSIDERATIONS																				
Domestic.																				
14. TRANSPORT INFORMATION																				
Not Applicable.																				
N/A	Land			Sea	Air (IATA)															
	N/A			N/A	N/A															
	N/A			N/A	N/A															
	N/A			N/A	N/A															
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: SON 2.0														