




# THE SERUM SYSTEM

REMEDATION POWERED BY HYDROGEN TECHNOLOGY



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# THE SERUM SYSTEM

The Serum System is a suite of products designed to compliment each other in the restoration and remediation of structures and contents.

The products offer a wide range of solutions for the restoration industry including:

 <p>WATER DAMAGE RESTORATION</p>	 <p>MOULD REMEDIATION</p>
 <p>FIRE AND SMOKE RESTORATION</p>	 <p>CRIME SCENE &amp; TRAUMA CLEANING</p>
 <p>ODOUR CONTROL</p>	 <p>CARPET AND UPHOLSTERY CLEANING</p>
 <p>TILE AND GROUT RESTORATION</p>	 <p>SURFACE PROTECTION</p>
 <p>VEHICLE &amp; EQUIPMENT CLEANING</p>	



# THE SERUM MOULD REMOVAL SYSTEM

REMEDICATION POWERED BY HYDROGEN TECHNOLOGY

## WHAT IT IS

Designed with safety, speed, and success in mind, the MINI Eliminator is a mobile application system that combines a uniquely formulated and stabilised hydrogen peroxide solution (Serum 1000) with an accelerator at precise ratios at the time of application.

This chemical reaction generates millions of hydroxyl radicals, producing a powerful removal agent that releases mould and organic contaminants from porous and semi-porous materials, lifting the contaminants to the surface ready for final removal via HEPA vacuuming.

- The accelerated hydrogen peroxide ( $H_2O_2$ ) is an oxidation cleaner that reduces surface tension, penetrating deep into substrates, simultaneously releasing organic contamination and removing associated staining from porous and semi-porous materials.
- Accelerated Serum 1000 is green and environmentally friendly.  $H_2O_2$  degrades to water ( $H_2O$ ) and oxygen ( $O_2$ ).
- Accelerated Serum 1000 degrades to water ( $H_2O$ ) and oxygen ( $O_2$ ) and Potassium Acetate  $CH_3CO_2K$ .
- Less than 0.5% of surfactant is left behind. This surfactant is on the US EPA's GRAS list (Generally Regarded as Safe). No residues or toxins are left behind.



## HOW IT WORKS

1. The primary protocol described in mould remediation standards is the physical removal of mould contamination from the structure, system and contents. The state of the fungal particulate does not matter.
2. Serum 1000 is designed to wet the surface of the contaminated material, breaking the surface tension, penetrating the biofilm, and oxidising the protein points in the associated enzyme's structure. This destroys the enzymes, including mycotoxins and dislodges fungal particulate and other organics from the substrate and biofilm, releasing and lifting the contaminants to the surface.
3. After applying the product, the organics are released and captured via profuse foam which lifts them to the surface. The material must then be allowed to dry. In the right conditions, this can happen in as little as an hour.
4. Thorough HEPA vacuuming is then undertaken to remove all the organics from the surface of the material.



# THE SERUM MOULD REMOVAL SYSTEM

## KEY BENEFITS

- ✔ Biodegradable and environmentally friendly. Rapidly breaks down to harmless compounds
- ✔ Removes mould and organic contaminants, deodourises AND improves appearance
- ✔ Decreased project costs and increased profitability
- ✔ Reduces labour by over 50% on most projects  
No Sanding, Scrubbing or Media Blasting
- ✔ No residue, harmful chemicals or other toxins are left behind
- ✔ Light weight, low pressure (35 PSI) + Low volume (0.45 GPM) = Easy to use

## HOW TO USE THE SERUM MOULD REMOVAL SYSTEM

### STEP 1:

#### Engineering Controls: Containment and Air Filtration

Ensure the remediation area is properly isolated and controlled. I.e. air exchange between the remediation and non-remediation (external) areas must be controlled. Exhausting air outside the remediation area or structure and ensuring that make up air entering the remediation area does so through a HEPA filter is a good example.

### STEP 2:

#### Debris Removal And Surface Preparation

All non-restorable materials and excess surface soiling should be removed from the remediation area. Debris such as dirt or sawdust should be removed from all surfaces in the remediation area.

### STEP 3:

#### Drying – Controlling Material Moisture Content

Excess moisture content in materials will dilute the product and act as a barrier, inhibiting penetration. Ensuring that materials such as timber frames are appropriately dry is necessary to ensure the maximum release and extraction of organic contaminants from these materials.



# THE SERUM MOULD REMOVAL SYSTEM

## STEP 4:

### Application, Cleaning and Completion

- When using the Serum MINI Eliminator, where possible set the sprayer outside the remediation area or as close to the exit as possible.
- Start applying Serum 1000 from the furthest point away from the exit, working your way back towards the exit.
- When applying to vertical surfaces, work from the bottom to the top with the spray nozzle approximately 15cm from the surface.
- Start applying methodically from left to right, slightly overlapping the spray strokes.
- When applying to elevated or ceiling surfaces, ensure that you plan the application so you don't need to walk back under treated areas before the product dries.
- Some areas of extremely dense or heavy contamination may need to be brushed with a stiff bristle brush or other method of aggressive cleaning/agitation. Normally, only a few strokes of the brush or brief aggressive cleaning will be required.
- These areas may also require reapplication to ensure all organics have been released and lifted to the surface.
- Dry the materials to the required drying goal. Mechanical drying can be used to expedite this process if required.
- Use a HEPA vacuum with a brush head attached to thoroughly vacuum every part of the surfaces in the remediation area.
- HEPA vacuuming is the most important step in the Serum Mould Removal Protocol. Serum 1000 has released all contamination to the surface and **MUST** be REMOVED by HEPA vacuuming.
- HEPA rated air filtration and the containment controls must be maintained throughout the entire process as a minimum requirement.





# THE SERUM MOULD REMOVAL SYSTEM



## CONSIDERATIONS, SAFETY AND PPE

1. Accelerated Serum 1000 may cause damage to painted surfaces, particularly plasterboard sheeting and other surfaces, particularly where any paint or finish is already damaged or compromised.
2. Accelerated Serum 1000 is most effective when used to remediate timber frames, followed closely by other materials such as concrete and masonry. When remediating materials other than hardwood timber, concrete and masonry, such as plasterboard sheeting and other, more sensitive building materials, it is recommended to start with Serum SBC (Surface Bloom Cleaner), moving onto Serum 1000 (unaccelerated) with caution for more stubborn sections.
3. Serum 1000 is an oxidising agent. Materials vulnerable to corrosion should be isolated or protected from the solution.
4. Appropriate PPE will protect you from mould and microbial related exposure and the product you are using to remediate the area.
5. Applicable PPE includes:
  - Respiratory and eye protection. E.g. Full-face respirator with twin filters (particulate and acid gas/organic vapour protection).
  - Coverall, chemical resistant gloves, and boot covers.



**PROTECTION:** To protect the surface just cleaned, Serum 2000 Step 2 Polymer Coating is recommended and will help keep surfaces cleaner longer, while allowing them to breathe.

# THE MINI ELIMINATOR

## CUSTOM DESIGN & PRECISION ENGINEERING

REMEDATION POWERED BY HYDROGEN TECHNOLOGY

The Serum MINI Eliminator is a mobile system designed to control, combine, and apply two specific chemicals to surfaces with minimal wastage. The system is designed to simultaneously dislodge and remove mould, organic matter, as well as associated staining and odours quickly using minimal labour.

### KEY FEATURES

- **Durable Construction** - all wetted metal parts are made of Grade 316 Stainless Steel and all plastic components are made of chemical-resistant polypropylene.
- **Lightweight Construction** - for easy maneuverability.
- **Low Pressure Output** - minimises wastage and provides additional safeguards for the operators ensuring the efficient, controlled, and safe operation.
- **Extendable** - the standard 15-meter application hose with stainless steel quick coupling connectors, is extendable up to 30 meters by adding an additional 15 meters of hose. The MINI Eliminator is able to combine and pump the products at the correct ratio and application pressure using up to 30 meters of application hose.
- **Energy-Efficient** - operating on a 110 VAC motor, The MINI Eliminator uses less than 1 amp and is suitable for use with small generators or portable power supplies, including being able to run off of a vehicle battery.
- **Designed for Safety** - protection measures include color-coded suction tubes and a closed-loop system for safe and precise chemical mixing.
- **Continuous Operation** - the systems motor is activated by the trigger-controlled spray wand, eliminating the need to switch the system off during periods of inactivity.



**SPEED - SAFETY - SUCCESS**



# SERUM 1000

## FORMULATED HYDROGEN PEROXIDE

REMEDATION POWERED BY HYDROGEN TECHNOLOGY

An advanced hydrogen peroxide solution formulated for the restoration industry. Serum 1000 can be accelerated during application using the Serum Mini Eliminator to achieve unparalleled stain and contamination removal.

### KEY FEATURES

- **Formulated 20% Hydrogen Peroxide** - Surface and substrate cleaner engineered to simultaneously extract mould and remove staining from materials.
- **Super Surfactants** - The surfactants and wetting agents incorporated into Serum 1000 dramatically reduce surface tension and increase wetting properties allowing unparalleled penetration of materials such as timber. It does this so successfully, organic matter can be drawn out of hardwood timber at an average depth of 3-5mm.
- **Inhibits Recontamination** - The process changes the static charge of a surface which modifies that surface, extending the time it takes for recontamination to occur.
- **Odour Counteractant** - Effectively oxidises and removes staining and odours from materials affected by fire and smoke, blood and bodily fluids, all categories of water and microbial growth.
- **Versatile** - Serum 1000 can be used on a multitude of materials including timber frames, decks, patios, docks, wooden fences, concrete, masonry and house siding (note: caution advised for painted surfaces).
- **Environmentally Friendly** - Degrades into Water and Oxygen
- **Saves Time & Money** - By taking the hard work out of remediation and cleaning processes, using Serum 1000 means getting to the next job sooner, reducing labour hours and project completion times.



### USAGE - WHEN AND WHERE

- **Water Damage:** Serum 1000 can be used as a cleaner after water damage, following the removal of gross organic load and drying.
- **Smoke and Odour Removal:** Serum 1000 can remove light to medium smoke and soot following fire damage. Materials heavily affected by smoke particulate should be pre-cleaned with Serum SR Smoke Remover, followed by the application of Serum 1000 to facilitate the final, detailed clean and odour elimination.
- **Mould and Stain Removal:** Serum 1000 dislodges fungal particulate from porous and semi-porous materials, lifting these organics to the surfaces via the foaming action. Source removal is then achieved by capturing and removing the fungal particulate through methodical HEPA vacuuming.
- **Crime and Trauma:** Protein based organics respond effectively to Serum 1000. Apply Serum 1000, allow to dwell for at least 2-3 minutes and then remove using an appropriate method. Always follow the ANSI/IICRC S540 Standard for Trauma and Crime Scene Cleanup.



# SERUM ACCELERATOR

## SUPERCHARGER

REMEDATION POWERED BY HYDROGEN TECHNOLOGY

Serum Accelerator is a powerful additive designed to elevate the performance of Serum 1000 to unparalleled levels. (This is not a standalone product.)

### KEY FEATURES

- **Hydroxyl Radicals** - Building upon the already exceptional cleaning and stain removal capabilities of Serum 1000, the Accelerator generates millions of hydroxyl radicals to supercharge its efficacy.
- **Stain Removal** - Serum Accelerator enhances the cleaning power of Serum 1000, intensifying the foaming action and significantly boosting its stain removal and aesthetic improvement capabilities across all applicable surfaces.
- **Integrated Application** - Each 1-gallon (3.8 litre) bottle of Serum Accelerator precisely accelerates five gallons (18.9 litres) of Serum 1000. A ratio of 1:20. Note: for customised acceleration levels, a ratio of 1:43 must be used. Once accelerated, Serum 1000 has a shelf life of approximately 1.5 to 2 days.
- **pH Booster** - Notably, any runoff resulting from applying Accelerated Serum 1000 maintains a pH of 9,
- **No Residues or Toxins** - the only by-products generated are water, oxygen, and potassium acetate, a harmless food additive. Residues left behind by most cleaners aid recontamination by increasing the adhesive properties of the surface as well as providing a potential food source for microbes. By leaving behind less than 0.5% of residue, final cleaning is easier and recontamination is less likely.



### USAGE - WHEN AND WHERE

- **Mould and Organic Contaminate Staining** - Aids in the removal of staining from mould and other microbial contamination, lightening and cleaning timber, concrete, or other structures where Serum 1000 is used.
- **Smoke Staining** - Aids in the removal of smoke and soot staining from structures where Serum 1000 is used.
- **MINI Eliminator** - Suitable for use with the Serum MINI Eliminator as a cleaning and stain removal booster.

Serum Accelerator should not be used as a stand alone product and only deployed when it is combined with Serum 1000.

# SERUM 2000

## LONG LASTING SURFACE PROTECTION

REMEDICATION POWERED BY HYDROGEN TECHNOLOGY

Serum 2000 is a revolutionary bio dispersant polymer coating that provides long-lasting surface protection by repelling organic molecules. Infused with siloxane, Serum 2000 is formulated to establish robust bonds with materials, without creating a moisture barrier and allowing materials to breath.

### KEY FEATURES

- **Molecular Bonding** - Serum 2000 is formulated to chemically penetrate and attach to fibres at the molecular level of both non-porous and porous materials, providing a protective film that is breathable. Breathability is critical to the materials future integrity. Should a future loss occur from non-protected sections of the material, moisture will not be retained.
- **Repels Organics** - The polymers that reside on the siloxane backbone are charged to repel organic molecules, safeguarding against future organic contamination.
- **Super Binders** - The charged polymers combined with proprietary Super Binders create a long lasting, often permanent stain and odour prevention system for the treated material.
- **Invisible** - Serum 2000 dries clear in approximately 1 hour and can be applied to any surface not harmed by water. An optional blue tint is available as an added measure for quality control purposes.
- **Economical** - Coats and protects up to 25m<sup>2</sup>/ltr.
- **Resilient** - Serum 2000's lifespan varies based on exposure to environmental factors. When applied to materials such as structural framework that will be protected by external cladding and internal linings, the expected life span is greater than 10 years. The lifespan is not affected by humidity.



### USAGE - WHEN AND WHERE

- **Structural Timbers** - Designed to protect recently remediated timber frames.
- **All Materials** - Can be applied to any surface not harmed by water. Life-span varies/reduces when the surface being treated is exposed to frequent contact with water and/or other outdoor environmental conditions.



#### OPTIONAL WARRANTY

Guarantee your work! Serum Products LLC offers limited 10 year warranty on Serum 2000



# NEW CONSTRUCTION MOULD

REMOVE

## BAD WEATHER RUINING YOUR CONSTRUCTION SITE?

**Perfect for large projects, the Serum Mould Removal System removes mould from timber frames using a well documented, biodegradable, accelerated hydrogen peroxide solution.**

**There is no need for labour intensive wiping, sanding, scraping or blasting. The purpose built application system maximises coverage and reduces job completion time.**





# NEW CONSTRUCTION MOULD

PROTECT



## PROVIDE PEACE OF MIND

**Serum 2000 provides total long term protection, preventing stains and odours caused by organic loads.**

**Serum 2000 uses charged polymers that chemically attach to the surface for lasting protection.**



# SERUM SBC

## SURFACE BLOOM CLEANER

REMEDATION POWERED BY HYDROGEN TECHNOLOGY

Serum SBC (Surface Bloom Cleaner & Stain Remover) is the perfect solution for effectively cleaning surfaces affected by “mould bloom” or mould and mildew growth. Formulated with a lower percentage of hydrogen peroxide, Serum SBC is suitable for more sensitive materials such as plasterboard and painted surfaces.

### KEY FEATURES

- **Formulated 7.9% Hydrogen Peroxide** - A lower concentration for more sensitive surfaces and ease of use. Convenient F-Style bottle for easy decanting.
- **Easy Application** - Designed as a convenient spray and wipe product, Serum SBC eliminates mould and organic contaminants, dust and dirt effectively removing associated odours and residual stains.
- **Odour Counteractant** - Oxidises and eliminates odours.
- **Environmentally Friendly** - Degrades into water and oxygen.
- **Sensitive Surfaces** - Suitable for more susceptible surfaces and those with painted finishes, Serum SBC transforms and rejuvenates contaminated surfaces, restoring dulled finishes and leaving behind a fresh and clean space.



### USAGE - WHEN AND WHERE

- **Mould Blooms:** Serum SBC is designed to be used in a variety of applications including normal mould and mildew that can occur in continually damp areas.
- **Most Materials** - Ideal for painted surfaces, plastics, wooden furniture and fabricated surfaces. Perfect for mould and urine affected tiles and grout, shower recesses and laundry tubs.
- **Crime & Trauma Clean Up** - Highly effective when used to remove protein-based organics such as blood and other residues encountered on trauma clean ups.



# SERUM SR

## SMOKE AND SOOT REMOVER

REMEDICATION POWERED BY HYDROGEN TECHNOLOGY

Serum SR (Serum Smoke Stain/Soot Remover) is a ground-breaking degreasing solution designed to eradicate heavy smoke build-up in structures damaged by fire.

### KEY FEATURES

- **Potent Formula** - Serum SR is a highly effective and aggressive smoke & soot removal agent.
- **Dissolves Residues**- Easily breaks down carbon deposits left behind after fire and smoke damage.
- **Dilution** - The dilution ratio can be adjusted depending on the thickness of the surface load. For light loads, 1 part SR to 10 parts clean water. For heavy loads, Serum SR can be used undiluted.
- **Formulated for Restorers** - The unique chemistry behind Serum SR leverages a small amount of caustic and a water-soluble solvent from the alcohol family. This allows Serum SR to dissolve, sequester, and rinse away stubborn smoke residues.
- **One System** - Once the smoke residues have been eliminated, Serum 1000 can be applied to complete the process by oxidising the remaining carbon responsible for smoke odours, resulting in a smoke and odour free environment.
- **Scalable** - Serum SR can be applied through the Serum Mini Eliminator for greater efficiency on large projects.
- **Versatile** - Serum SR can be used as a degreaser for a variety of purposes and materials.



### USAGE - WHEN AND WHERE

- **Fire Damage Restoration** - Serum SR is specifically designed for the restoration of fire and smoke damaged building materials and contents.
- **Grease and Grime** - Serum SR has a multitude of other uses where surfaces and spaces have been subject to heavy grease and oil accumulation including, degreasing equipment and engines, cleaning range hoods, and large scale commercial clean ups such as factories and commercial kitchens.





# SERUM CU

## CARPET AND UPHOLSTERY CLEANER

REMEDICATION POWERED BY HYDROGEN TECHNOLOGY

Serum CU (Carpet and Upholstery Soft Surface Cleaner and Deodorizer) is a precisely formulated 20% hydrogen peroxide solution enriched with surface active agents.

### KEY FEATURES

- **Formulated 20% Hydrogen Peroxide (Low pH)** - Organic loads respond to lower pH Hydrogen Peroxide better and Serum CU as a formulated Hydrogen Peroxide cleaner is designed to be more aggressive creating more active radicals to interact with the enzymes present in the organic load.
- **Stain and Odour Removal** - Removes organic loads and oxidises stains from soft and hard surfaces.
- **Reduces Surface Tension** - Unique formulation that effectively breaks surface tension, allowing deep penetration into the substrate of fibres.
- **Residue Free** - As it evaporates from carpets or fabrics, it leaves behind nothing but water and oxygen, ensuring a fresh and clean scent without any residue.
- **No Rinsing Agent** - Serum CU does not require a rinsing agent and does not cause browning or wicking.



### USAGE - WHEN AND WHERE

- **Carpet, Fabric & Upholstery** - Stain and odour removal
- **Fire and Smoke** - Removal of odour and light staining
- **Pet Urine Stains & Odours** - Carpets, fabrics, upholstery, even the skirtings!
- **Crime/Trauma** - Removal of protein-based organics and associated odours.



Always test fabric and upholstery for colorfastness in an inconspicuous area to determine compatibility with Serum CU. Serum CU may bleed naturally dyed wool or delicate fabrics.



# SERUM TG

## TILE, GROUT AND CONCRETE CLEANER

REMEDICATION POWERED BY HYDROGEN TECHNOLOGY

Serum TG (Tile, Grout, and Concrete Cleaner) is an exceptional solution designed to restore brilliance to grout and ceramic tile surfaces.

### KEY FEATURES

- **Acid Cleaner** - Serum TG has a pH of less than 1 making it a potent cleaner that can be rinsed with water.
- **Heavy Duty** - Designed for heavy duty cleaning of severely soiled tiles, grout and concrete.
- **Easy to Use** - Simply apply to the area to be cleaned, allow a few minutes dwell time, then agitate the targeted areas with an appropriate medium such as a stiff bristle brush and finish by rinsing with clean water. Repeat the process as required.
- **Safe and Effective** - Serum TG's non-flammable formulation contains no caustic agents, solvents, or mineral acids, ensuring safe and effective cleaning.
- **Restores and Rejuvenates** - Provides non-spotting results, enhances gloss, brightens tiles, and effectively removes body oils.



### USAGE - WHEN AND WHERE

- **Concrete Substrates** - Serum TG can be used to restore concrete surfaces affected by heavy soiling and the associated stains.
- **Bathrooms and Kitchens** - Serum TG is effective in removing grime, oil, mildew, and smoke staining from tiles and grout (porcelain and ceramic tiles) while restoring the aesthetic finish.
- **Hard Surfaces** - Serum TG is effective on a wide range of hard surfaces not etched by acid including water damage, mould, trauma and fire projects.



# SERUM TW

## TRUCK WASH

REMEDICATION POWERED BY HYDROGEN TECHNOLOGY

Discover the power of Serum TW (Truck Wash), an advanced cleaning solution designed to clean and protect.

### KEY FEATURES

- **2 in 1 Formula** - Serum TW is a vehicle wash formulated with wax and a polymer coating, designed to tackle the persistent challenge of magnetic road film.
- **Enhanced Protection** - Serum TW features an acrylic polymer that coats vehicle surfaces at a microscopic level, shielding it from environmental contaminants. The polymer and wax combination ensures long-lasting protection and shine, even in harsh weather conditions.
- **Effective Cleaning**- Designed to be used through a high-pressure washer with either hot or cold water, allowing for quick and efficient cleaning. Serum TW is specifically formulated to break down and lift stubborn magnetic road film, grime, and dirt buildup effortlessly.
- **Water Beading** - Serum SR's unique glass treatment causes water to bead and rapidly disperse, helping to maintain clear windshields.
- **Lasting Finish** - Leaves vehicles spot-free and restores shine even to the dullest painted surfaces. Serum TW keeps your vehicle cleaner for longer periods
- **Environmentally Friendly** - Biodegradable formula



### USAGE - WHEN AND WHERE

- **All Forms of Transport and Cartage** - Trucks, utilities, trailers and mobile equipment.
- **Enhanced Effectiveness Over Time** - With sustained use, the polymer coating accumulates, increasing the effectiveness of the formulas water replant properties and making removing stubborn soiling easier each time.



# PRICING

REMEDATION POWERED BY HYDROGEN TECHNOLOGY

Item	Size	SKU	Price (Exc. GST)
THE MINI ELIMINATOR	1120H x 545W x 740D (28kg)	8-101114	\$5,499.00
SERUM 1000	18.93L	5-215-05	\$329.50
SERUM ACCELERATOR	3.8L	5-730-02	\$144.99
SERUM 2000	18.93L	5-212-05	\$635.99
SERUM SBC	3.8L	5-686-04	\$89.95
SERUM SR	3.8L	5-674-04	\$99.50
SERUM SR	18.93L	5-674-05	O.R.
SERUM CU	3.8L	5-222-04	\$99.50
SERUM CU	18.93L	5-222-05	O.R.
SERUM TG	3.8L	5-671-04	\$99.50
SERUM TW	3.8L	5-682-04	\$64.99
SERUM STARTER PACK	1 x Mini + 4 x 1000 + 1 x Accelerator	8-101115	\$6,632.49

All Pricing current as of 01/04/2024





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