Keeping Your Lab Spotless

Essential Solutions for a Clean Workplace

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MP BIOMEDICALS

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How to Choose the Ideal Laboratory Cleaning Product?

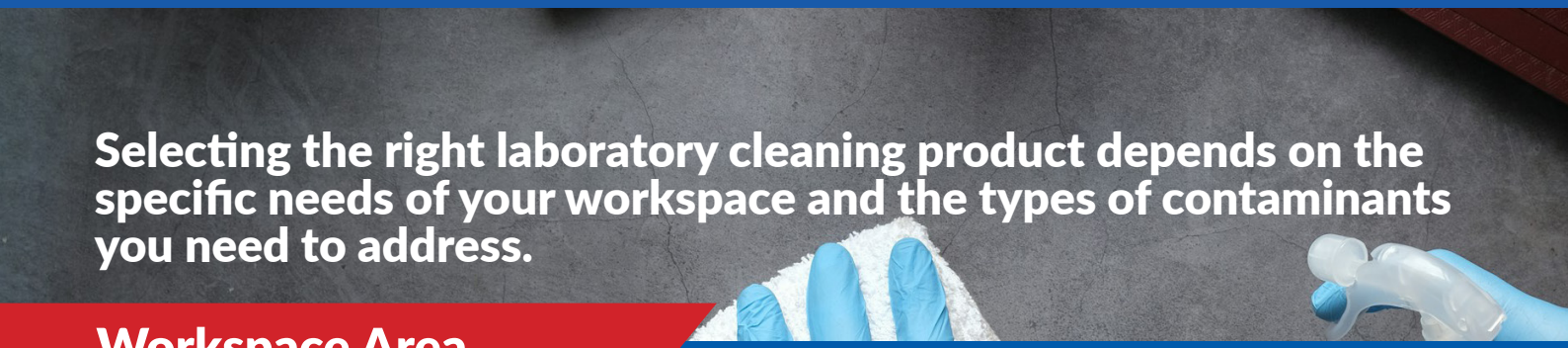
In the dynamic realm of scientific research and experimentation, maintaining a clean and sanitized laboratory environment is paramount. Contaminants such as mycoplasma, nucleases, and microbial pathogens can compromise the integrity of experiments, jeopardize research outcomes, and undermine the reliability of results.

Our suite of advanced cleaning agents and antimicrobial sprays is meticulously formulated to address these challenges, ensuring the highest standards of hygiene and safety in your lab. Whether you're working in cell culture facilities, incubator rooms, or water bath setups, our products are designed to deliver exceptional performance, reliability, and peace of mind.

From mycoplasma removal agents to specialized nucleic acid cleaning sprays, each of our solutions is backed by cutting-edge science and provide you with a clean and microorganism-free environment.

MP Bio's Cleaning Solution Offer:

- Fast and Effective Removal of multiple contaminations
- Environmental friendly
- Residue-free rinsing
- Concentrated for easy dilution
- Versatility for various surfaces
- Consistent quality from lot to lot
- Non-toxic formulation for tissue and cell cultures



Selecting the right laboratory cleaning product depends on the specific needs of your workspace and the types of contaminants you need to address.

Workspace Area

The selection of a laboratory cleaning product should consider where it will be used within the workspace. Different areas may have varying degrees of contamination or require specific cleaning protocols. For instance, benchtops and countertops might accumulate spills, residues, or biological contaminants, necessitating a more potent cleaning solution. In contrast, delicate instruments or sensitive equipment might require a gentler, non-corrosive cleaner to avoid damage.

Material Compatibility

Compatibility between the cleaning product and the surface or equipment being cleaned is crucial to prevent damage. Many laboratory surfaces are made of materials like stainless steel, glass, or plastics, each requiring different cleaning agents. For example, while a strong acidic cleaner might effectively remove mineral deposits from glassware, it could corrode metal surfaces. Similarly, using a harsh solvent on plastic equipment may cause it to degrade or become brittle over time. Selecting a cleaning product specifically formulated for the materials in your lab helps ensure both cleanliness and longevity of equipment.

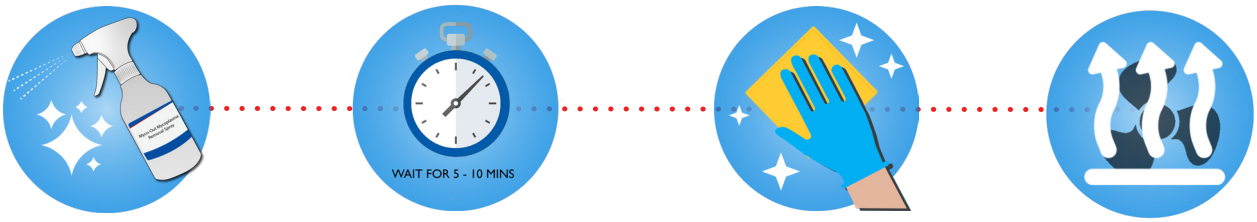
Safety Considerations

Safety should always be a top priority when choosing a laboratory cleaning product. This includes not only the safety of lab personnel but also environmental considerations. Ideally, the detergent should be non-toxic, non-corrosive, and environmentally friendly. This reduces the risk of accidents or exposure to harmful chemicals for laboratory staff while also minimizing the impact on the environment. Additionally, selecting products that are biodegradable or have minimal environmental impact helps promote sustainability practices within the laboratory.

MYCO-OUT MYCOPLASMA REMOVAL SPRAY

Effective Eliminate on:

- MYCOPLASMA
- BACTERIA
- VIRUS
- FUNGAL SPORES



Spray evenly on lab equipments/ area

Wait for 5-10 minutes

Wipe off with clean and dry paper towel

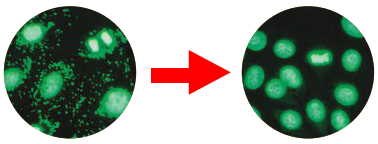
Ventilate and dry for 2-3 minutes

✓	Easy to Use: User-friendly, ready-to-use spray, eliminating the need for tedious methods like fumigation and alcohol wiping.
✓	Fast and Non-Toxic: The Mycoplasma-specific peptide surfactant derived from Bacillus subtilis works in just 5 – 10 minutes without harming cells.
✓	Highly Effective: Efficacy studies confirm its effectiveness in removing Mycoplasma from surfaces like laminar flow cabinets coated with Mycoplasma-positive HeLa cell culture.
✓	Broad Antimicrobial Spectrum: It eliminates Mycoplasma and inactivates various microorganisms, including bacteria, viruses, and fungal spores.
✓	Safe to Use: The product is safe for users and the environment.

Mycoplasma Removal Agent (MRA)

Mycoplasma Removal Agent (MRA) is effective in eliminating various types of mycoplasma from contaminated cultures and preventing recontamination of cured cultures.

Content: The product contains 50 µg of a 4-oxo-quinoline-3-carboxylic acid derivative per mL of water.



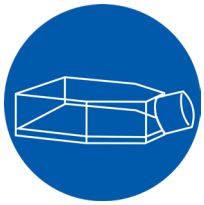
BEFORE AFTER

Features

- **Strong Anti-Mycoplasma Activity:** Effective against various types of mycoplasma
- **Prevents Recontaminations:** Recontamination is not detected while preventative doses of MRA are in use.
- **Convenient Usage:** Simply add to contaminated cell cultures and incubate for a week.
- **Preventative Measure:** Helps avoid mycoplasma contamination but should not replace good cell culture techniques.

1. Treatment of Contaminated Cultures:

- Add MRA at a concentration of 0.5 µg/ml and incubate for a week.
- For example, add 0.1 ml of MRA to 10 ml of media in a 25 cm^2 flask.



2. Media Replacement or Culture Transfer:

- Use a medium containing MRA at the same concentration for media replacement or culture transfer.

3. Post-Treatment Verification:

- Transfer cell cultures several times without MRA and confirm no regrowth of contaminating mycoplasma.

4. Detection of Mycoplasma:

- Use a Mycoplasma detection kit (e.g., MP's Mycoplasma Hoechst Stain Kit, catalog number 3030000, or Immu-Mark Myco-Test Kit, catalog number 3020000).

5. Preventing Contamination from Serum or Trypsin:

- Add MRA at a concentration of 0.1 µg/ml to the media.

Sample Data

Note that the level of infection, cell type and mycoplasma strains may influence specific results. Each researchers should use the sample data as a guide from which to determine the effective MRA concentration needed with their specific cell line and mycoplasma strain.

+ MYCOPLASMA POSITIVE (CONTAMINATED)

- MYCOPLASMA NEGATIVE (DECONTAMINATED)

Duration treated with MRA: 7 days

		Duration of cultures (days)			
Human-derived cell-A (Human melanoma	mL for every table	**0**	**7**	**14**	**21**
	0.39	**+**	**-**	**-**	**-**
	0.2	**+**	**-**	**-**	**-**
	0.1	**+**	**-**	**+**	**+**
	0	**+**	**+**	**+**	**+**

		Duration of cultures (days)			
Human-derived cell-B (Human lung carcinoma)	Concentration of MRA (ug)	**0**	**7**	**14**	**21**
	0.39	**+**	**-**	**-**	**-**
	0.2	**+**	**-**	**-**	**-**
	0.2	**+**	**-**	**+**	**+**
	0.1	**+**	**+**	**+**	**+**
	0	**+**	**+**	**+**	**+**

7X Cleaning Solution

Features

- Critical cleaning for most surfaces and materials
- Maximum efficacy with no residues
- Lot-to-lot consistency
- Verification with published papers
- Non-Toxin and Environment-friendly

Discover the Power of 7X Cleaning Solutions

Safe, Effective, and Environmentally Friendly

Our range of 7X cleaning solutions, including 7X, ES 7X, 7X PF, and O-Matics, is specifically designed for the safe and effective cleaning of laboratory instruments and glassware.

- **Environmentally Friendly:** ES 7X is a phosphate-free, biodegradable version of the original formula, ensuring safety for both your lab and the environment.
- **Instant Solubility:** Completely soluble in water at any concentration, without agitation.
- **Powerful Dispersing Agents:** Reduces agglomerates to individual particles and keeps them suspended, preventing redeposition on surfaces.
- **Superior Wetting Agent:** Penetrates and cleans minute crevices that ordinary cleaners can't reach.
- **Quick Draining:** Ensures laboratory equipment and glassware drain completely in seconds, preventing solute molecule deposits that could interfere with experiments.
- **pH Neutral:** Compatible with alkalis and acids, maintaining near-neutral pH to avoid etching delicate glassware and reducing weight loss and breakage.
- **Ideal for Cell Culture Labs:** Minimizes chemical contamination that could affect cell growth in tubes or flasks.

- Elevate your laboratory cleaning with 7X solutions - where safety, efficacy, and environmental responsibility meet.

WHICH 7X™ SHOULD I USE?

7X Cleaning Solution	ES 7X Cleaning Solution	7X O-Matic Cleaning Solution	ES 7X O-Maric Cleaning Solution
What soil needs to be cleaned? Bioaccumulation, proteins, oils, blood, tissue, pigments, fermentation residues, gels, starches, etc			
✓	✓	✓	✓
What surface needs to be cleaned?			
Stainless steel			
✓	✓	✓	✓
Glass			
✓	✓	✓	✓
PTFE and other plastics			
✓	✓	✓	✓
Porcelain/ ceramic			
✓	✓	✓	✓
Which cleaning method can be used?			
Machine			
		✓	✓
Manual			
✓	✓	✓	✓
Soak			
✓	✓	✓	✓
Ultrasonic			
✓	✓	✓	✓
Which detergent is phosphate free (i.e. eco-friendly)?			
Phosphate free			
	✓		✓
What is the pH range and type of 7X?			
pH range			
6.0-7.5	6.5-7.5	9.0-11.0	6.5-7.5
Detergent type			
Anionic	Anionic	Non-ionic	Non-ionic
Foam level			
Regular	Regular	Low Foam	Low Foam

Nuc-Off Nucleases Removal Spray

- Non-toxic spray designed to remove nucleases
- Offers fast and direct application, with results achievable in just 5 minutes.
- Compatible with various materials, including glassware, plastic, lateX, and stainless steel.

Nuc-Off Sprays are effective, ready-to-use solutions designed to remove DNase, RNase, and nucleic acids without compromising the stability of DNA and RNA. A small amount of residual product will not affect subsequent experimental results, making it a reliable choice for sensitive applications.
These sprays are non-toxic, non-corrosive, and non-irritating, providing a safe alternative to DEPC in certain scenarios. Their safety profile makes them suitable for various laboratory environments and applications.
To use Nuc-Off Sprays, simply spray the product directly onto the surface of the object. After waiting for 5 minutes, wipe it off with clean tissues. This product can be applied to a wide range of equipment, including pipettors, thermocyclers, centrifuges, benches, racks for test and centrifuge tubes, as well as most materials such as glassware, plastic, latex, and stainless steel.

Performance comparison of MP Biomedicals Nuc-Off Nucleases and DNA Removal Spray and Competitor T solution in removing RNase and DNase.

	Function	Applications
Nuc-Off Nucleases Removal Spray	RNase & DNase ✓ RNA & DNA	Prevents degradation of DNA and RNA in samples. For DNA & RNA experiments
Nuc-Off Nucleases and DNA Removal Spray	RNase, DNase and DNA ✓ RNA	Inhibits degradation of DNA & RNA in samples, prevents DNA contamination. For qPCR experiments
Nuc-Off Nucleases and Nucleic Acid Removal Spray	RNase, DNase, DNA & RNA	Inhibits degradation of DNA & RNA in samples, prevents DNA & RNA contamination. For qPCR or other RNA experiments.

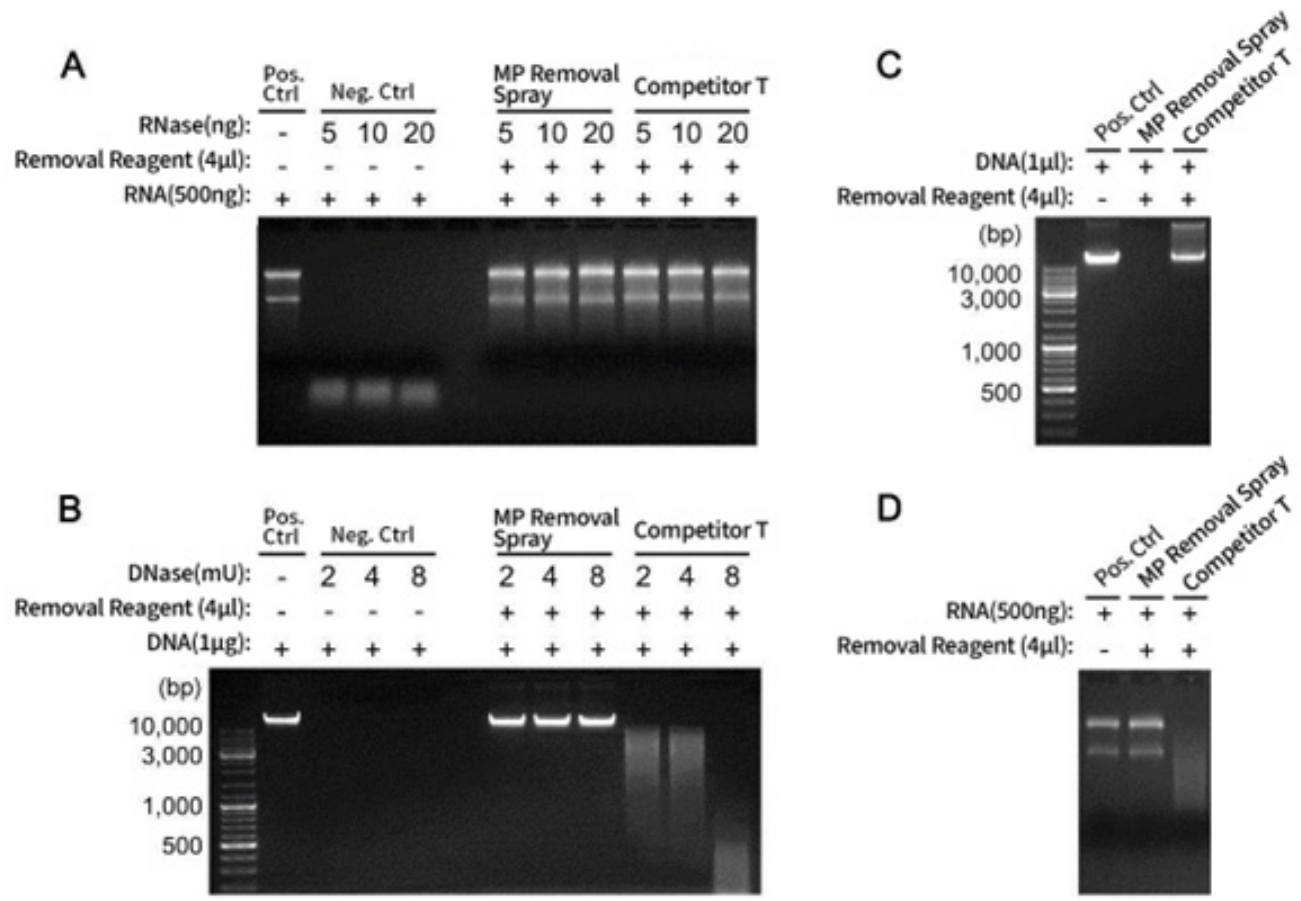
Performance comparison of MP Biomedicals Nuc-Off Nucleases and DNA Removal Spray and Competitor T solution in removing RNase and DNase.

Our MP Removal Spray effectively eliminates RNase, preserving RNA integrity even at higher RNase concentrations, as shown by clear RNA bands in the gel electrophoresis results.

MP Removal Spray demonstrates superior DNase elimination, maintaining DNA integrity at all tested DNase levels.

MP Removal Spray does not compromise DNA stability. The gel electrophoresis results show that DNA remains intact after treatment, matching the positive control and outperforming the competitor.

Our removal spray is gentle on RNA, maintaining its integrity without degradation. The results are comparable to the positive control, ensuring that your RNA samples are safe and stable.



LabCare

For effective and safe inhibition and elimination of viruses, bacteria, fungi, mycoplasma, and molds in any lab surfaces

Microbial contamination is a major problem for current laboratories. Unwanted microorganisms pose a significant threat and can compromise cells, reagents, instruments, and equipment in our working areas. Aseptic techniques, such as the use of gloves, sterilized reagents, proper packaging, controlled airflow, and purified water sources, are crucial in mitigating the risk of contamination. However, even with stringent protocols in place, various sources of microbial contamination can still infiltrate your laboratory.

Comparison of all Key Products

	Catalogue ID	Pack Size	Usage Setting	Function	Prerequisite	Applications
Nuc-Off Nucleases Removal Spray 	112460450 112460451	450 mL, 1.8 L	• Bench tops • Pipettes • Racks • Gloves • Other instruments	Remove RNase and DNase without affecting RNA and DNA	Ready to use solution	DNA and RNA-related experiments. It prevents the degradation of DNA and RNA in samples.
Nuc-Off Nucleases and DNA Removal Spray 	112461450 112461451	450 mL, 1.8 L	• Bench tops • Pipettes • Racks • Gloves • Other instruments	Remove RNase, DNase and DNA without affecting RNA	Ready to use solution	Mainly for qPCR. It not only inhibits the degradation of DNA and RNA in samples, but also prevents the contamination by other DNA in surroundings.
Nuc-Off Nucleases and Nucleic Acid Removal Spray 	112462450 112462451	450 mL, 1.8 L	• Bench tops • Pipettes • Racks • Gloves • Other instruments	Remove RNase, DNase, RNA and DNA	Ready to use solution	qPCR or other experiments that must avoid RNA contamination. It not only inhibits the degradation of DNA and RNA in samples, but also prevents the contamination by other DNA and RNA in surroundings.
LabCare Cell Culture Room Antimicrobial Spray 	093051049 093051053 093051053X4	10 mL/ 45 mL/ 1.8 L	• Cell Culture Room	Elimination of viruses, bacteria, fungi, mycoplasma, and molds mainly in cell culture rooms	Ready to use solution	Alters microbial cell membrane permeability and inhibits key enzymes in microbial metabolism
LabCare Incubator Antimicrobial Spray 	093051149 093051153 093051153X4	100 mL/ 450 mL/ 1.8 L	• Incubator	Inhibition and elimination of viruses, bacteria, fungi, mycoplasma, and molds in incubators, biological safety cabinets, and ultra-clean benches	Ready to use solution	Alters microbial cell membrane permeability and inhibits key enzymes in microbial metabolism
LabCare Incubator Water Disinfectant Solution 	093051349 093051254	100 mL /500 mL	• Incubator water	Maintaining water cleanliness and preventing cross-contamination within incubators	1:500	Changes permeability of microbial cell membranes and inhibits key metabolic enzymes
LabCare Water Bath Disinfectant Solution 	093051349 093051354	100 mL /500 mL	• Water Bath	Inhibiting and removing microorganisms from water in water baths.	1:500	Changes permeability of microbial cell membranes and inhibits key metabolic enzymes
Myco-Out Mycoplasma Removal Spray 	093050853 093050853X4	450 mL/ 1.8 L	Mycoplasma sensitive areas • cell culture room • Biosafety cabinets, PCR...)	Targets mycoplasma species	Ready to use solution	Peptide surfactant to remove mycoplasma containing no toxicity and is biodegradable.

Maximize lab hygiene and efficiency with MP Biomedicals Cleaning Solution.

MP BIOMEDICALS

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