



PANAVISION EQUIPMENT CLEANING GUIDELINES

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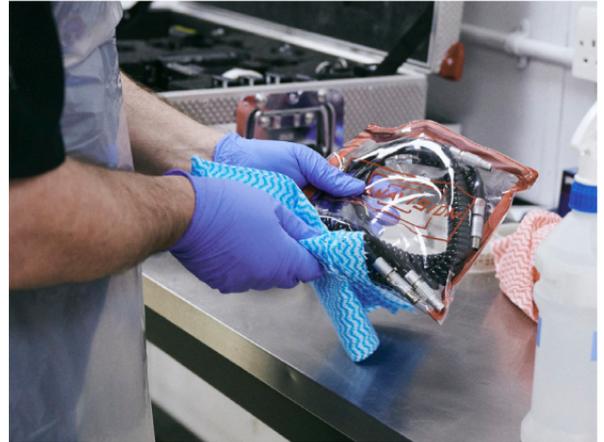
PANAVISION EQUIPMENT CLEANING GUIDELINES

Panavision and our entire family of companies are fully committed to the health and safety of our employees, customers and visitors. Our goal is to create and manage a safe workplace and environment while continuing to deliver the high quality of service and collaboration that you have always experienced with us.

The following document describes cleaning and disinfectant products and methods that can be safely used on Panavision equipment. Whether you are in our facility, on set, or out on location, it is our objective to provide you with the information needed to support your efforts to protect the health and wellbeing of those using our equipment, and to protect the equipment itself. We will continue to review and update our policies, practices, and procedures as new cleaning and disinfection measures become available within our industry.

In addition to this document, please visit our COVID-19 resource hub at www.panavision.com/covid, where you'll find up-to-date policies and procedures, facility status, and more.

As always, we welcome any input or feedback that you may have, and we appreciate your support.



GENERAL GUIDELINES

It is Panavision's objective to ensure that our employees, clients, facilities, and equipment remain safe during the COVID-19 pandemic. To help achieve this, all Panavision equipment will be processed by our technical staff before access is allowed or before it is shipped.

When the equipment is provided to production, it will become production's responsibility to ensure the equipment is processed as described in this document to mitigate any risk or damage to the equipment. This document is to be used in conjunction with, and does not supersede or serve as a substitute for, applicable local, state, federal, and/or industry safety guidelines. Disinfectant products should be used only in accordance with the instructions on their labels, and Panavision recommends that its customers only use products that are on EPA's "List N: Disinfectants for Use Against SARS-CoV-2 (COVID-19)"* (or another equivalent list) at this time. List N products include the necessary information to assure the product is applied and used correctly. Customers should contact a Sales and Marketing Representative if they do not have access to List N products, or for assistance resolving any perceived conflicts between these guidelines and product labels or requirements imposed by other applicable guidance documents.

The following Guidelines apply to equipment manufactured by Panavision. When using other equipment, refer to the equipment manufacturer's instructions to determine whether these methods are recommended.

Please note that where we have indicated in these Guidelines that UV-C or Ozone processes are safe to use on the classes of equipment identified as appropriate in this guidance, Panavision strongly cautions its customers that EPA does not review the efficacy of ozone devices. Customers should inquire with the manufacturer of any device they wish to use onsite to confirm that it is suitable for the desired uses.

FOGGING AND ATOMIZED SOLUTIONS MAY NOT BE USED DUE TO POTENTIAL TO DAMAGE EQUIPMENT.

These methods can cause serious damage to professional imaging equipment, such as camera sensors and internal electronics, and may be damaging to optical lens coatings, internal mechanics, and electronics. Also, based on the chemical solution being applied with the fogging and/or atomizing device, the chemicals used may leave a damaging residue that will mar and/or oxidize the surface materials.

* See <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2-covid-19>



CLEANING AND DISINFECTING GUIDELINES BY EQUIPMENT PRODUCT TYPE

CAMERA BODIES

Visibly dirty surfaces should be pre-cleaned using clean and filtered compressed air or nitrogen regulated to a pressure not to exceed 30psi, including approved can air. Wiping equipment down with de-ionized water or an aqueous solution mixed with alcohol not to exceed 70% alcohol is an accepted pre-clean solution to wipe down surfaces with embedded debris. Do not spray any of the solutions onto the surfaces that need to be cleaned as a precaution to prevent incursion into sensitive equipment. Do not use Bleach based or Hydrogen Peroxide based solutions as a pre-cleaning substance.

After pre-cleaning visibly dirty surfaces, with the camera powered off and the sensor cap securely in place, hand-apply an ethyl alcohol or quaternary ammonium chloride-based solution found on EPA's "List N" with a microfiber wipe or lint-free cloth.

Isopropyl Alcohol	Quaternary Ammonium	Ethyl Alcohol	Bleach Solution	UV-C	Ozone	Fogging/Atomizing
✓	✓	✓	✗	✓	✗	✗



CAUTION

- DO NOT SPRAY SOLUTIONS DIRECTLY ON THE CAMERA.
- DO NOT USE UV-C WITH SENSOR EXPOSED (MAY DAMAGE SENSOR).
- DO NOT USE ANY FOGGING DEVICE OR ATOMIZED SOLUTION AS IT MAY PENETRATE AND CAUSE INTERNAL DAMAGE TO THE SENSOR AND ELECTRONICS.
- DO NOT USE OZONE (MAY DAMAGE SENSOR).
- DO NOT USE ABRASIVE FABRICS OR COMPOUNDS.



CLEANING AND DISINFECTING GUIDELINES BY EQUIPMENT PRODUCT TYPE

LENSES AND ELECTRONICALLY ASSISTED FILTERS & OPTICAL COMPONENTS

Visibly dirty surfaces should be pre-cleaned using clean and filtered compressed air or nitrogen regulated to a pressure not to exceed 30psi, including approved can air. Wiping the lens down with de-ionized water or an aqueous solution mixed with alcohol not to exceed 70% alcohol is an accepted pre-clean solution to wipe down surfaces with embedded debris. Do not spray any of the solutions onto the surfaces that need to be cleaned as a precaution to prevent incursion into sensitive equipment. Do not use Bleach based or Hydrogen Peroxide based solutions as a pre-cleaning substance. Additionally, do not use unregulated, unfiltered and dried compressed air to blow off the gear.

After pre-cleaning visibly dirty surfaces, use a List N ethyl alcohol-based disinfectant solution, applied with a microfiber wipe or lint-free cloth, on external metal and plastic surface areas.

Optical glass elements and lenses should be made free of any dust or debris by using pressurized air no greater than 30PSI, then wetted per label instructions with a List N ethyl alcohol solution, and wiped dry with a lint-free lens tissue and/or cotton swab after the appropriate contact time.

Acetone is not a disinfectant but can be used as a final cleaner for optics after other Panavision-approved products are used. Avoid soaking elastomer-mounted elements with acetone. Excessive acetone could prematurely wear out the elastomer locating the element and cause element displacement. When using acetone on optics, do not saturate the elastomer holding the element.



Isopropyl Alcohol	Quaternary Ammonium	Ethyl Alcohol	Bleach Solution	UV-C	Ozone	Fogging/Atomizing
✓	✗	✓	✗	✗	✗	✗

CAUTION

- OPTICAL LENS CAPS SHOULD BE IN PLACE WHILE CLEANING EXTERNAL SURFACE AREAS.
- DUST AND ABRASIVE MATERIAL CAN AND WILL DAMAGE THE OPTICAL GLASS AND GLASS COATINGS.
- DO NOT SPRAY SOLUTIONS DIRECTLY ON THE EQUIPMENT.
- DO NOT USE UV-C (MAY DAMAGE OPTICAL COATINGS).
- DO NOT USE ANY FOGGING DEVICE OR ATOMIZED SOLUTION (MAY DAMAGE OPTICAL COATINGS AND CAUSE INTERNAL DAMAGE).



CLEANING AND DISINFECTING GUIDELINES BY EQUIPMENT PRODUCT TYPE

ELECTRONIC COMPONENTS, MONITORS, FILTERS AND CABLES

Visibly dirty surfaces should be pre-cleaned using clean and filtered compressed air or nitrogen regulated to a pressure not to exceed 30psi, including approved can air. Wiping equipment down with de-ionized water or an aqueous solution mixed with alcohol not to exceed 70% alcohol is an accepted pre-clean solution to wipe down surfaces with embedded debris. Do not spray any of the solutions onto the surfaces that need to be cleaned as a precaution to prevent incursion into sensitive equipment. Do not use Bleach based or Hydrogen Peroxide based solutions as a pre-cleaning substance.

After pre-cleaning visibly dirty surfaces, electronics should be powered off and disconnected from power source. A List N denatured ethyl alcohol solution can be hand-applied to all surface areas with a microfiber wipe or lint-free cloth.

Isopropyl Alcohol	Quaternary Ammonium	Ethyl Alcohol	Bleach Solution	UV-C	Ozone	Fogging/Atomizing
✓	✗	✓	✗	✓	✓	✗



CAUTION

- DO NOT SPRAY SOLUTIONS DIRECTLY ON THE EQUIPMENT.
- DO NOT USE ANY FOGGING DEVICE OR ATOMIZED SOLUTION (MAY DAMAGE MONITOR DISPLAYS AND SURFACE MATERIAL, AND CAUSE INTERNAL DAMAGE TO ELECTRONICS).
- DO NOT USE ABRASIVE FABRICS OR COMPOUNDS.



CLEANING AND DISINFECTING GUIDELINES BY EQUIPMENT PRODUCT TYPE

TRIPODS, ACCESSORIES, CASES, AND CAMERA CARTS

Visibly dirty surfaces should be pre-cleaned using clean and filtered compressed air or nitrogen regulated to a pressure not to exceed 30psi, including approved can air. Wiping equipment down with de-ionized water or an aqueous solution mixed with alcohol not to exceed 70% alcohol is an accepted pre-clean solution to wipe down surfaces with embedded debris. Do not spray any of the solutions onto the surfaces that need to be cleaned as a precaution to prevent incursion into sensitive equipment. Do not use Bleach based or Hydrogen Peroxide based solutions as a pre-cleaning substance.

After pre-cleaning visibly dirty surfaces, a wide variety of disinfectant solutions and methods can be used for these types of equipment.

Any EPA-approved disinfectant product on "List N," with the active ingredients below, can be hand-applied with a microfiber wipe or lint-free cloth.

Isopropyl Alcohol	Quaternary Ammonium	Ethyl Alcohol	Bleach Solution	UV-C	Ozone	Fogging/Atomizing
✓	✓	✓	✓	✓	✓	✗



CAUTION

- ENSURE SENSITIVE PRODUCT TYPES ARE REMOVED AND NOT EXPOSED TO SOLUTIONS USED TO CLEAN THIS TYPE OF EQUIPMENT.
- DO NOT USE ANY FOGGING DEVICE OR ATOMIZED SOLUTION (MAY DAMAGE SURFACE MATERIALS AND CAUSE INTERNAL DAMAGE TO ELECTRONICS).
- DO NOT USE ABRASIVE FABRICS OR COMPOUNDS.
- *THE FOAM ISOLATION PADDING INSIDE THE EQUIPMENT CASES SHOULD NOT BE CLEANED WITH ACETONE OR SODIUM HYPOCHLORITE/CHLORINE-BASED BLEACH AS IT MAY DAMAGE THE FOAM MATERIAL.



ISOPROPYL ALCOHOL

SAFE TO USE ON

- Optics surfaces
- Exterior of lenses
- Camera bodies
- Electronic components
- Plastic surfaces
- Exterior of cases
- High-touch surfaces (phones, keyboards, tools, door handles)
- Other hard nonporous surfaces
- Cables
- Camera, lens, and electronic accessories
- Anodized surfaces

NOT SAFE TO USE ON

- Open or closed cell foam
- Soft porous surfaces (fabric pouches, carpets)
- Treated wood (lacquered, shellacked, etc.)
- Food items

IMPORTANT NOTES

- Isopropyl alcohol is safe on most hard, non-porous surfaces.
- Use only products on EPA's List N.
- Always read and follow all product safety and use label instructions for application, contact time, and drying process.



QUATERNARY AMMONIUM

SAFE TO USE ON

- Cases
- Hard nonporous surfaces
- Workstation tops
- High-touch surfaces (phones, keyboards, tools, handles)
- Surfaces not susceptible to oxidation (tripods, cables, etc.)
- Painted/plastic surfaces
- Carts
- Exteriors of monitors
- Test equipment (MTF, T-stop machine, projectors)

NOT SAFE TO USE ON

- Optics surfaces
- Cameras
- Electronic accessories
- Electronic components
- Food items
- Open or closed cell foam
- Soft porous surfaces (filter pouches)

IMPORTANT NOTES

- Quaternary ammonium based solutions are intended for use on a wide variety of non-porous surfaces. Use only products on EPA's List N.
- Always read and follow all product safety and use label instructions for application, contact time, and drying process.



ETHYL ALCOHOL

SAFE TO USE ON

- Optics surfaces
- Exterior of lenses
- Camera bodies
- Plastic surfaces
- Exterior of cases
- High-touch surfaces (phones, keyboards, tools, door handles)
- Other hard nonporous surfaces
- Cables
- Camera, lens, and electronic accessories
- Anodized surfaces

NOT SAFE TO USE ON

- Open or closed cell foam
- Soft porous surfaces (fabric pouches, carpets)
- Treated wood (lacquered, shellacked, etc.)
- Printed circuit boards and electronic contacts
- Food items

IMPORTANT NOTES

- Always read and follow all product safety and use label instructions for application, contact time, and drying process.
- Use only products on EPA's List N.
- Ethyl alcohol is safe on most hard nonporous surfaces.
- Avoid using ethyl alcohol solution to wipe down electronic contacts and PCB. Ethyl alcohol can leave a residue that can cause contamination.



SODIUM HYPOCHLORITE SOLUTION (BLEACH)

SAFE TO USE ON

- Workstation tops
- High-touch surfaces (phones, keyboards, tools, door handles)
- Workstation area
- Non-carpeted floors
- Surfaces not susceptible to oxidation (tripods, cables, etc.)
- Carts

NOT SAFE TO USE ON

- Anodized surfaces
- Electronic components
- PCB
- Electronic contacts
- Component metal surfaces
- Fabric
- Open or closed cell foam
- Paper products
- Camera bodies
- Optics surfaces
- Lens housings
- Machinery surfaces

IMPORTANT NOTES

- Diluted bleach solutions can be used if appropriate for the surface.
- Bleach can adversely affect people with asthma and should be used with caution. Always read and follow all product safety and use label instructions for application, contact time, and drying process and ensure proper ventilation before and after application.
- For List N products, follow all instructions on the label.
- Follow the manufacturer's application instructions for the surface, ensuring a contact time of at least 1 minute.
- Do not mix sodium hypochlorite with any other cleaners or disinfectant products.





TO LEARN MORE ABOUT OUR RESPONSE TO COVID-19 VISIT
[PANAVISION.COM/COVID](https://panavision.com/covid)

PANAVISION[®]

[PANAVISION.COM](https://panavision.com) | [INFO@PANAVISION.COM](mailto:info@panavision.com)