

Tristel™

TRISTEL DUO OPH

Rapid and reliable
high-level disinfection
for ophthalmic devices.



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Summary

Tristel OPH Combination Pack includes **Tristel DUO OPH** – a chlorine-dioxide based high-level disinfectant for ophthalmic devices – and **Tristel DRY WIPES**. It is designed to provide fast, effective and compliant reprocessing at the point of care, achieving high-level disinfection in 2 minutes without a water rinse.

Devices

- Diagnostic lenses
- Reusable tonometer prisms
- Ultrasound A-scan probes
- Ultrasound B-scan probes
- Slit lamps
- Pachymeters
- Retinal imaging cameras



Microbiology

Tristel DUO OPH is a high-level disinfectant proven effective against a wide range of microorganisms in 2 minutes, including:



- *Clostridioides sporogenes*
- Adenovirus Type 5
- Coronaviruses
- Influenza A Virus (H1N1)
- Herpes Simplex Virus (HSV) Type 1
- *Aspergillus brasiliensis*
- *Candida albicans*
- *Pseudomonas aeruginosa*
- *Staphylococcus aureus*
- Vancomycin-resistant Enterococci (VRE) *Enterococcus faecium*

Application

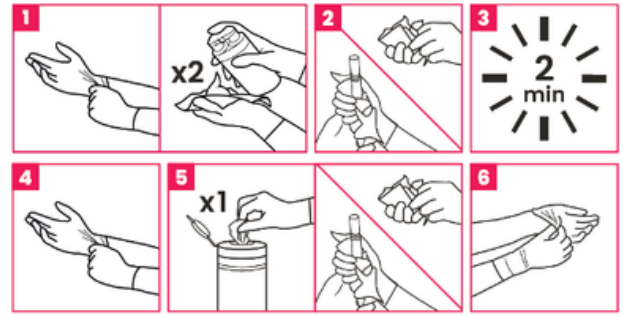
Step 1 – If using Tristel OPH Combination Pack for the first time, please ensure setup has been completed prior to completing step 1. Clean your hands and apply clean gloves, then dispense two doses of Tristel DUO OPH onto a Tristel DRY WIPE.

Step 2

Smaller devices: For smaller devices, lay the wipe in the palm of your hand and apply two doses of Tristel DUO OPH. Place the device directly into the foam and use the wipe to ensure all areas of the device are covered.

Larger devices: Use the wipe to spread the foam over the surface of the medical device and ensure that all areas are covered. Pay particular attention to any crevices, ridges, or indentations.

Step 3 – Ensure the device remains wet for a minimum contact time of **2 minutes**. Discard the used wipe and gloves in accordance with local regulations. Do not re-use.



Step 4 – **Clean** your hands and put on new gloves.

Step 5 – Pull **one** Tristel DRY WIPE out of the tub and close the cap tightly. **Wipe the device once over** to remove residues and dry it. Pay close attention to indentations and joins along the device.

Step 6 – Discard the used wipe and gloves in accordance with local regulations. Do not re-use. Store the medical devices in accordance with hospital protocols to prevent damage or recontamination.

Compatibility

Tristel DUO OPH has been tested and proven to be compatible with the instruments of major manufacturers, including:

- Accutome by Keeler
- DGH Technologies
- Ellex
- Haag-Streit
- Keeler Accutome
- Laboratoires Thea
- Natus Medical
- Neolight/Phoenix Technology Group
- Nidek
- Ocular Instruments
- Quantel Medical
- Reichert Technologies
- RxSight
- Sonomed Escalon
- Tagaki
- Tomey
- Volk
- Zeiss

Safety

At the 100% concentration strength, Tristel DUO OPH is non-mutagenic, non-clastogenic in maturing erythrocytes and non-oral toxic. It is classified as a slight irritant to the skin and an eye irritant in direct contact. Any potential residues remaining after reprocessing with Tristel DUO OPH are not irritating to dermal and eye tissues.



Standards & Guidelines

- New Zealand follows AS/NZS 5369:2023 Standards for the Reprocessing of Reusable Medical Devices in Health Service and Non-Health Service Organisations.
- Tristel DUO OPH is compliant to these New Zealand standards.
- Optometry Australia Infection Control Guidelines review reprocessing of reusable equipment, and confirm Tristel DUO OPH as a Class IIb medical Device disinfectant compliant to AS/NZS 5369 standards.
- RANZCO guidelines for the Prevention of Nosocomial Epidemic Keratoconjunctivitis - EKC have been updated to reference that 'as per the TGA standard, medical devices should be cleaned with high-level disinfectants (HLD) for example, Standards Approved Chlorine Dioxide Chemistries' (Tristel DUO OPH).
- AHS (Alberta Health Service) Canadian guidelines recommend Tristel DUO OPH for point of care high level disinfection.
- CDC no longer recommends both 3% hydrogen peroxide and 70% Isopropyl for tonometer disinfection because these chemistries have been associated with adenovirus.

Regulatory

Tristel DUO OPH is registered as an instrument grade high-level disinfectant for medical devices on the Australian Register of Therapeutic Goods (ARTG). Products such as alcohol-based solutions or sodium hypochlorite preparations are commonly used in practice but are not included in the ARTG as high-level disinfectants for medical devices.

Clinical Evidence

An outbreak resulted in **78 infections**, with **17% of patients developing severe complications, such as corneal infiltrates**¹.

Adenovirus spread through contaminated ophthalmic devices during ROP exams, infecting 23 infants. Four died from respiratory symptoms².

Over **400 EKC cases** were reported, with at least **45 patients developing severe complications, including keratitis**³.

Studies show that commonly used **low-level disinfectants are ineffective against Adenovirus**, underscoring the critical need for robust disinfection protocols to prevent outbreaks and ensure patient safety⁴.

University of Marseille **outbreak of Adenovirus-D8 in NICU** affecting neonates, parents, and nurses. The outbreak was associated with handling and existing quaternary disinfection for a RetCam. **15 cases in neonates, presenting as conjunctivitis, 2 in healthcare workers, 18 in parents. Following implementation of new controls including DUO OPH for RetCam, no further cases were observed** after⁵.

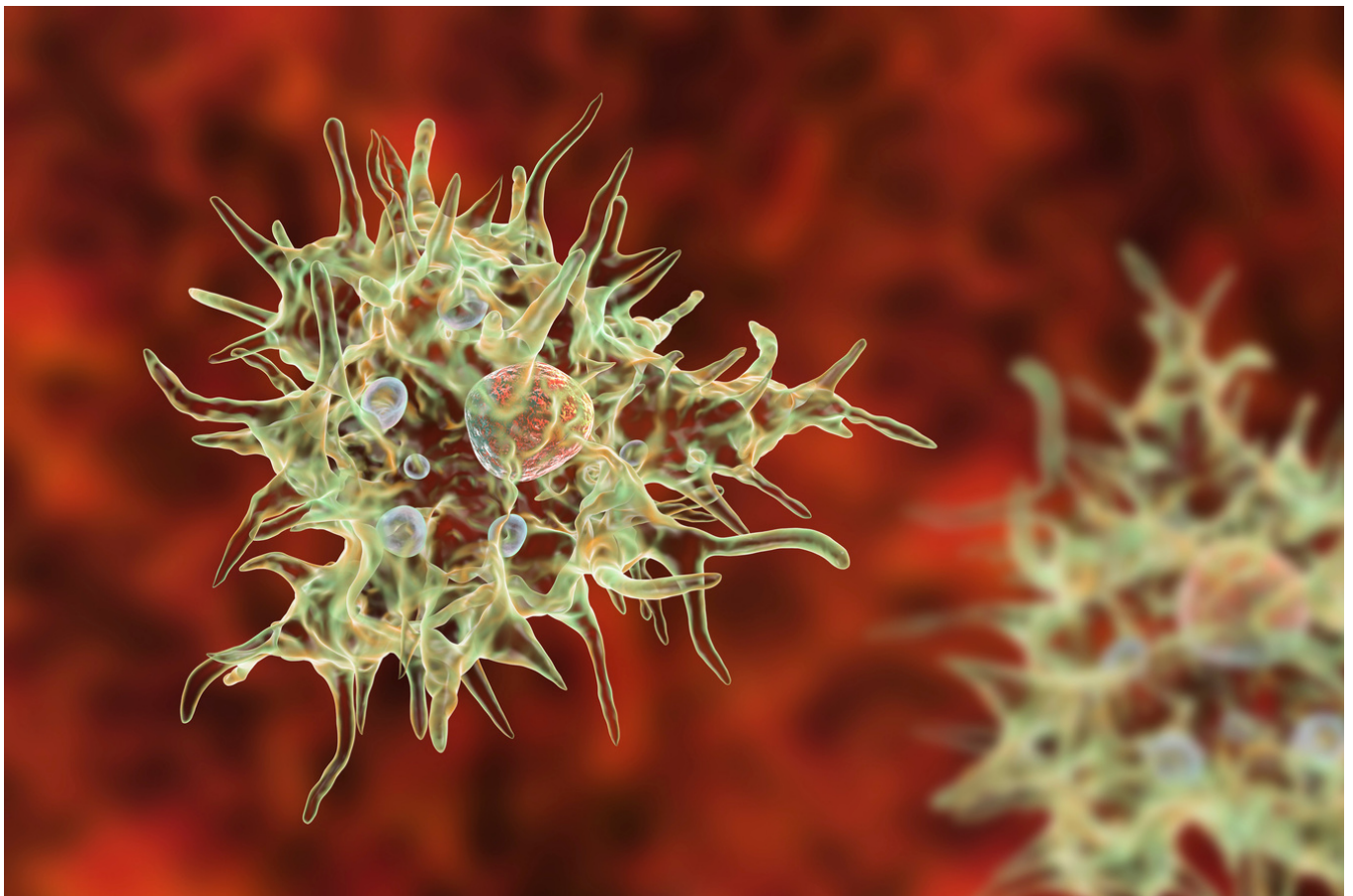
1 Killerby, M. E., Stuckey, M. J., Guendel, I., et al. (2018). Epidemic keratoconjunctivitis outbreak associated with human adenovirus type 8 — U.S. Virgin Islands, June–November 2016. MMWR, 67(22), 627–630.

2 Sammons, J. S., Graf, E. H., Townsend, S., et al. (2019). Outbreak of adenovirus in a neonatal intensive care unit: Critical importance of equipment cleaning during inpatient ophthalmologic examinations. Ophthalmology, 126(1), 137–143

3 Centers for Disease Control and Prevention. (2013). Adenovirus-associated epidemic keratoconjunctivitis outbreaks — Four states, 2008–2010. MMWR, 62(32), 662–665

4 O'Yong, K., Killerby, M., Pan, C.-Y., et al. (2017). Outbreak of epidemic keratoconjunctivitis caused by human adenovirus type D53 in an eye care clinic — Los Angeles County. MMWR, 67(48), 1414–1417.

5 C Sartor, I Ligi et al, Journal of Hospital Infection



Product Information

Companion Products	Pack Sizes
Tristel DUO WIPES – Low linting, dry wipes validated for application of disinfection and for removal of residue post disinfection contact time.	Tristel DUO OPH Combination Pack – One bottle of Tristel OPH – One cannister of DRY WIPES
Tristel CLEAN – A triple enzymatic for cleaning medical devices prior to disinfection.	

Training

Tristel DUO OPH is provided with detailed instructions for use which are developed to enable its safe and effective use. To assist users with understanding of Tristel products and their use, Tristel developed the Tristel 3T Training Platform, providing:

- Users with an on-demand online access to training videos and certificates.
- Online access for flexibility to integrate learning into busy schedules.
- Managers with easy to track records of team engagement and training status.

Other Resources

- Tristel DUO OPH Frequently Asked Questions
- Tristel DUO OPH Wallchart
- Tristel DUO OPH Microbiological Efficacy
- Tristel DUO Device Compatibility





For more information on the Tristel
OPH Combination Packs,
please contact us:

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