

# Using a Natural Remedy to Improve Indoor Air Quality Onboard the Vessels



# Introduction

Sustainability in Shipping is not just about environmental protection, but also about creating a sustainable environment on board with better health and safety for the crews and passengers.

Marine HVAC systems and ductwork are ideal breeding grounds for many types of viruses, bacteria, mould, and Legionella, especially in hot or humid conditions.

In addition, common moulds and yeasts can produce allergenic effects and unpleasant odours. While odours are merely disagreeable, repeated exposure to certain types of mould and the allergens that they produce can lead to both acute, short-term and chronic, long-term health problems in your crew and passengers.

So, the cleanliness of air-conditioning systems on board your vessels are crucial to the health and well-being of both passengers and crew.

According to the Maritime Labour Convention (MLC), 2006 Guideline B3.1.2 - Ventilation 2b, it is required that all air conditioning systems should be designed to facilitate easy cleaning and disinfection to prevent or control the spread of disease. Therefore, a proper duct air treatment system is crucial in maintaining a healthy air quality onboard the vessel.

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## Keeping risks of infection low

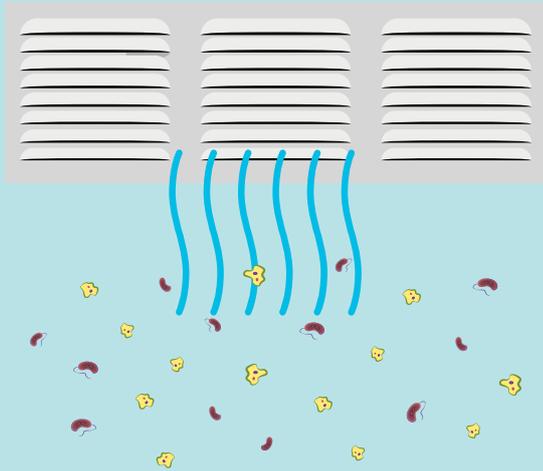
Mould and yeast should be viewed and treated as potentially allergenic, with measures taken to prevent your crew and passengers onboard from continuous exposure to high concentrations of spores. A duct air treatment unit is primarily used in air conditioning systems to improve the air quality onboard a vessel by inhibiting the growth of mould, killing bacteria and inhibiting viruses, as well as eliminating unwanted scents at the root, rather than masking them.



Growth of mould, fungus and mildew in the air conditioning systems

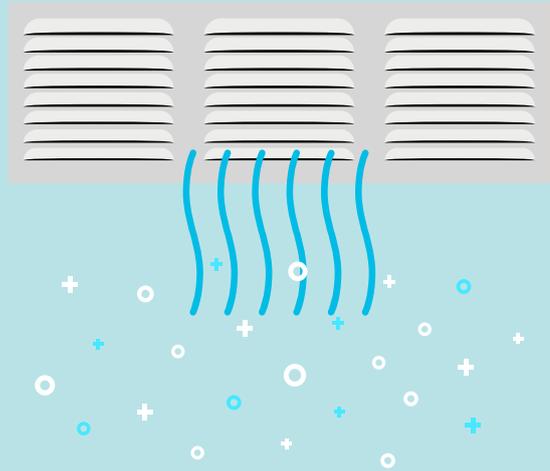
# Why use Tea Tree Oil in Duct Air Treatment?

**Without DAT**



Without the DAT, germs, bacteria and harmful particles will pass through the ducting system into the indoor environment and living quarters.

**With DAT**



The DAT gel block can be placed anywhere within the air-conditioning system. Tea tree oil vapour from the block will be released into the ducting system, sterilising and santising the air passing through the duct diffuser and then into the indoor environment and living quarters.

Australian Tea Tree Oil has been used for decades in its pure form as the active ingredient in formulated products to maintain the health of millions of people throughout the world.

The Unitor™ Duct Air Treatment (DAT) is a natural, biodegradable, non-toxic gel block consisting of complex polysaccharides, surfactants, purified water, and most importantly, pure Australian tea tree oil, a natural remedy that is safe to use.

Tea tree oil's naturally occurring anti-fungal, anti-viral, anti-bacterial, anti-inflammatory, anti-septic and anti-carcinogenic properties complement our duct air treatment solutions to effectively disinfect the impurities in the air conditioning systems to prevent or control the spread of disease as required by MLC2006. There have been more than 900 peer-reviewed studies conducted on tea tree oil, showing the safety and efficacy of this natural essential oil<sup>1</sup>.



Unitor™ Duct Air Treatment (DAT), typically placed inside the fan section of a air-conditioning unit

By inhibiting the growth of mould, killing bacteria and viruses<sup>2</sup>, and eliminating the root causes of unpleasant smells instead of just masking them, Unitor™ DAT improves the indoor air quality onboard vessels and ensures the health of crew and passengers.

It is suitable for use in all air conditioning systems including ducted systems, air handling units and packaged air conditioner units.

References:

<sup>1</sup><http://www.attia.org.au>: Australian Tea Tree Industry

<sup>2</sup>[www.elsevier.com/locate/antiviral](http://www.elsevier.com/locate/antiviral) Activity of Melaleuca alternifolia (tea tree) oil on Influenza virus A/PR/8: Study on the mechanism of action

## Benefits of natural oils vs synthetic oils

One of the key benefits of Unitor™ DAT is the use of pure tea tree essential oils, which eliminates the risks of obtaining synthetic or adulterated oils.

As an associate member of the Australian Tea Tree Industry Association (ATTIA), Wilhelmsen only uses ATTIA COP certified pure Australian tea tree oil, grown sustainably in the Tweed Valley in New South Wales.

Each batch of tea tree oils is tested to ensure compliance with the chemical composition of tea tree oil defined by international standards<sup>1</sup>.



### Why do we recommend pure natural tea tree oil?

There are synthetic or adulterated tea tree oils available in the market. Those oils may contain some impurities and there is little to no scientific evidence to support their safety or effectiveness. It is more beneficial to opt for pure natural tea tree oil which complies with the ISO 4730, and most importantly is comprehensively proven to be safe and highly effective in disinfection and sanitization.

It is of utmost importance to safeguard the cleanliness of your vessel and the health of your crew. The Unitor™ DAT uses pure tea tree oil which is a natural and healthy way to remove unpleasant odour, bacteria, and freshen up your indoor air quality.

Wilhelmsen Ship Service uses only comprehensively proven ingredients that are safe and effective, ensuring that our products efficiently clean and promote the safety of everyone onboard your vessels.

Scan now



for a closer look

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