

# Case Study - Carbon Dioxide Count Reduction - Singapore

*Summary of test reports from NOVO Environmental Technologies Services on marine service vessel and a public transit building area.*

**Purpose** - Two GermXit user clients contracted with NOVO Environmental to independently conduct air quality testing on board the Singapore Coast Guard vessel, Sandbar Shark and also in an crew break room at the Singapore Transit Line - Kranji Road SMRT depot.

**Description** - Comparative studies of air samples were carried out in both areas, measurements were taken of bacteria level, fungal counts and carbon dioxide counts before and after GermXit was deployed in the areas.

**Final results** - Carbon dioxide levels were reduced in one case from over 1,150 ppm to 450 ppm and the other case from 1,050 ppm to 575 ppm, reductions of 60% and 45%. Bacteria reduced by over 60% and fungal count by over 90% in the SMRT test. (Results in the second test were negated by an outside agent.)

***“...after activation of air purification system “GermXit”, the air quality in the Crew Room had improved...”*** - NOVO Environmental Technologies Services Pte., Ltd.

Reduction of carbon dioxide is a critical factor in improving indoor air quality and the fact that the introduction of GermXit Gel alone resulted in significant reduction is important to note.

***“The total bacterial counts reduced from 1,444 cfu/m<sup>3</sup> to 525 cfu/m<sup>3</sup>; The total fungal counts reduced from 169 cfu/m<sup>3</sup> to 6 cfu/m<sup>3</sup>; The carbon dioxide level reduced from 1,050 ppm to 575 ppm;”*** - NOVO Environmental Technologies Services Pte., Ltd.



*To learn more about GermXit tea tree oil gel and how it will completely change the way you think about indoor air quality in your building or your home - please call us at numbers below or email [contact.us@germxit.com](mailto:contact.us@germxit.com)*



## Global use-

GermXit is now in use onboard a number of FSO ships and almost 100 oil and gas rigs and platforms around the globe. Additionally GermXit is used in hundreds of homes, factories, hospitals, hotels, shopping centers and schools throughout Asia, Africa and the Middle East.

## About GermXit and Tea Tree Oil-

IAQ Technologies is a commercial ventilation cleaning service with offices in Melbourne, Australia and Bangkok Thailand. Regular cleaning of ducts and air handling systems is an essential maintenance item in any commercial building but IAQ wanted to go one step further. An effective air treatment system was needed to finish the job and keep working between cleanings so, GermXit was developed. Tea tree oil was chosen because of its proven effectiveness, it is all natural and it is renewable.

IAQ chemists infused tea tree oil in a water based gel designed to evaporate. As water in the gel evaporates; the tea tree oil itself is carried in an airborne vapor that permeates the entire area where it is deployed. Either forced air (fans, HVAC) or simple air movement circulates it. Within hours the tea tree oil is doing its job controlling germs, yeasts, molds, fungi and bacteria - which in turn controls odors, insects and other pests. There is even strong evidence showing tea tree oil controls a number of viruses. As long as GermXit is maintained in an area, undesirable organisms are controlled. The tea tree oil is always in the environment.

### What is Tea Tree Oil?

*By definition it is a broad spectrum antimicrobial, natural antiseptic, bactericidal anti viral, essential oil. Tea Tree Oil is effective against mold/mildew/bacteria/pollen/fungus/yeast.*

### What is Melaleuca Alternifolia?

*It is the Latin name for the tree that produces the essential tea tree oil from its leaves.*

### How does Tea Tree Oil work?

*It destroys the spores membrane - the spore (mold/mildew/bacteria/pollen/ fungus/yeast, becomes inert.*

United States National Institute of Health - [nih.gov](http://nih.gov)

- [www.ncbi.nlm.nih.gov/pubmed/10735256](http://www.ncbi.nlm.nih.gov/pubmed/10735256) (What it does)
- [www.ncbi.nlm.nih.gov/pubmed/16854063](http://www.ncbi.nlm.nih.gov/pubmed/16854063) (How it does it)
- [www.ncbi.nlm.nih.gov/pubmed/10399193](http://www.ncbi.nlm.nih.gov/pubmed/10399193) (What it is effective against)
- [www.ncbi.nlm.nih.gov/pubmed/9791953](http://www.ncbi.nlm.nih.gov/pubmed/9791953) (What it is effective against-expanded)

More information -

<http://www.teatree.org.au> (educational) <http://www.ncbi.nlm.nih.gov/pubmed?term=tea%20tree%20oil> (for 446 labs/white papers)

*To learn more about GermXit tea tree oil gel and how it will completely change the way you think about indoor air quality in your building or your home - please call us at numbers below or email [contact.us@germxit.com](mailto:contact.us@germxit.com)*

