



DIVE-SHIELD – The essential dimension in dive safety.
The first product set to provide healthcare benefits to the dive community as well as help protect the very aquatic life that we as divers value & are so privileged to experience.

DIVE-SHIELD – Created by divers for divers.
My name is Lee Garner. As a Dive Instructor also involved in medical research, I am aware of the bacterial issues long associated with diving practice yet basically overlooked.
I chose to research solutions to this aspect of dive safety.

DIVE-SHIELD – Enabled by innovative new technology, this anti-bacterial system has been specifically designed for the unique challenges diving presents to our health & kit.

DIVE-SHIELD – I am proud to share with you the first and only, safe and effective, treatment for dive equipment that makes available genuine dive health benefits to all divers.

Join me in the Dive-Shield Dive Health Initiative.

Dive Safe

Lee Garner



Introducing the DIVE-SHIELD dive health initiative – Raising the standard of dive safety.

DIVE-SHIELD – The three way protective system.

1. DIVE-SHIELD is a range of innovative anti-bacterial products designed specifically for the unique and demanding requirements of healthcare protection in an aquatic environment.
2. DIVE-SHIELD products have also been specifically designed to maintain and protect dive equipment such as BCDs and neoprene suits from premature degradation.
3. DIVE-SHIELD safeguards aquatic life. The unique formulations do not taint the marine environment and help inhibit site to site transfer of bacteria on divers and their equipment.

DIVE-SHIELD – Delivers more benefits than might be imagined.

The Scuba Dive Market has never before had access to a safety technology that operates in such a way as to protect in equal measure, the diver, his/her equipment, and the marine environment itself.

For the Diver

DIVE-SHIELD helps protect the diver by sterilizing equipment that intimately interfaces with his/her body to address the ever increasing threat of bacterial/fungal/viral infection. The source of these problems can be human, from equipment, or environmental (e.g. marine life, pollution, site-specific bio-life, etc)...

DIVE-SHIELD delivers...

- Safety – with non toxic formulations
- Convenience – portable with quick and simple delivery
- A bacterially inert localized area, e.g. the mouthpiece
- Reliable, dependable results – with strong efficacy
- Cost effectively
- Additional healthcare and experiential benefits
- Without *any* of the disadvantages inherent in traditional 'cleaning' chemicals

For Dive Equipment

DIVE-SHIELD helps protect dive equipment from the ever increasing threat of damage due to bacteria, algae or mould driven material degradation; again irrespective of the source of infection, be it human, equipment, environment (marine life, pollution, cite specific bio-life, etc)...

DIVE-SHIELD delivers...

- Safety – with non toxic formulations

- Convenience – portable with quick and simple delivery

- A bacterially inert localized area, e.g. the mouthpiece

- Reliable, dependable results – with strong efficacy

- Cost effectively

- Affording additional equipment condition and longevity benefits

- Without *any* of the disadvantages inherent in traditional 'cleaning' chemicals

For The Marine Environment

DIVE-SHIELD helps protect the aquatic environment that it will inevitably be exposed to when it is applied to divers and their equipment.

Direct effect: Traditional chemical products taint the aquatic environment with their chemical components. DIVE-SHIELD has no environmental impact, other than that intended: to defeat pathogenic (i.e. bad) bacteria, algae, fungi and mould.

Indirect effect: DIVE-SHIELD can help prevent potentially disastrous site to site transmission of bacteria, algae, fungi and mould. By keeping the diver and equipment clean divers who travel to a variety of locations will no longer transfer problem bacteria, etc, from site A to site B to site C.

These are issues of genuine and considerable concern to the general diving community. PADI operate the AWARE program and also collaborate with National Geographic's dive program. DIVE-SHIELD is proudly associated with both these programs. Subscribers to the DIVE-SHIELD safety initiative also support DIVE-SHIELDS donation commitments to these environmental programs.

The Technology

Innovative technology is the enabler that makes it possible to create new markets where traditional antibiotics, antibacterial, sanitizing or cleansing materials would be ineffective, unsafe or otherwise inappropriate.

DIVE-SHIELD is a niche market application of an innovative core antibacterial technology that employs a novel 'bacteria-busting' technique developed in medical research. Its unique mode of action smothers bacteria from the outside, denying them key nutrients and forcing them to lyse (i.e. die naturally) for want of food. This methodology has been the subject of independent research for the past eight years and has proven itself to be

stunningly simple, effective and safe; making traditional chemical agents appear pedestrian and even dangerous in comparison.

Crucially, this novel approach differs substantially from that of traditional antibacterial which defeat bacteria with a chemical attack designed to break through the cell wall and deliver a chemical payload that will make the cell non-viable. This old approach means that existing agents are unsuitable because they are toxic to man and the environment, cause side effects, adverse reactions and can affect the human immune response system.

It is also desirable to eliminate such chemical agents from accessing or interacting with dive equipment and, of course, the natural dive environment.

DIVE-SHIELD safely and effectively defeats all the bacteria, algae, fungi and molds associated with diving activity. This allows it to help protect the healthcare of the diver, the condition of his/her equipment (which will last longer than if not treated) and, at the same time, have absolutely no impact on the aquatic environment.

The Application

Market research shows that divers are increasingly aware and concerned of the risk they bear of exposure to infection. Yet, in the absence of suitable solutions there has previously been little that could be done. Equipment is still frequently cleaned with little more than a dip in water because there was no effective answer to this problem on the market. This lack of attention to real cleaning is generally the case, even with buddy-shared or, worse, training school or rental equipment, which inevitable passes through many hands!

Masks and regulators are still seldom cleaned (in the sense of leaving bacterially inert surfaces). Likewise buoyancy compensation devices (BCDs) and dive suits which receive scant attention – until they smell and/or have obvious mold present. The exception is the aware diver who will take protective measures. This will likely be professional divers who understand the issues.

DIVE-SHIELD products have been developed in response to the specific needs of the dive community for healthcare protection in increasingly worrying times. Bacteria are all-pervasive and are present in every aspect of our lives so people are exposed to, and carry more types (some rather unfriendly...), than ever before. The very nature of diving places participants at higher risk than the general populace.

Key initial products

DIVE-SHIELD 'ORAL' - (original concept product) – 100ml pump action spray.
[There is also a 1litre version for dive shop/school/resort use for their customers.]
This is intended as a portable, quick treatment product; to be sprayed on the mouthpiece of the regulator before the diver inserts it into his/her mouth. A quick liberal spray and the wet mouthpiece can be inserted into the mouth. The product has a distinct 'tell-tale' flavor which tells the diver that the mouthpiece has been treated (very useful in the case of rental shops...) and which advises the diver of a safe, treated mouthpiece.

DIVE-SHIELD 'BCD' – Buoyancy compensation device treatment; 30ml sealed single-use pot. After each dive event, such as a dive weekend, the BCD ends up with a combination of air and spit from the diver as well as some sea water inside. Usually drained of surplus water, these devices remain damp and bacteria and mold grow inside readily. Adding the DIVE-SHIELD BCD liquid will protect the inner sac from degradation in storage and keep it in safer/better condition for the next dive event (and serviceable for longer overall).

DIVE-SHIELD 'FOAMING MOUSSE' – Neoprene suit/kit cleaner; 200ml pump action foam head. Neoprene suits also degrade with use and require maintenance. This foaming mousse solution is designed to be rubbed on to the neoprene to kill any bio-presence that may reside there; (dive equipment is 'loaded' with chemicals during manufacture that some bacteria particularly like to live on.) Some divers also have an allergic reaction to neoprene because of certain proteins. DIVE-SHIELD FOAMING MOUSSE will optimally maintain the dive suit thereby protecting the divers' skin from bacterial infection and/or allergic response. It is also a fact of life that there are no toilets when diving and decompression stops may prevent a diver from returning to shore or a boat so inevitably divers will pee in their suits. Proper cleaning is appropriate when it is owned equipment; it is absolutely essential when considering using rented suits.

DIVE-SHIELD 'NASAL SPRAY' – An amazingly effective 10ml nasal spray. This pump action product delivers anti-infective to the nasal cavity. This simple product is already used by many as a prophylactic. For example, a quick reassuring squirt helps protect in public places as varied as aircraft (recycled air) to office (unhealthy air conditioning), malls and buses. Divers need to maintain their health and avoid head colds and congestion. This product is your best ally for this. Eminently suitable for clearing the nose just prior to donning equipment. A real 'use anywhere' product to stay in top form for your diving!

DIVE-SHIELD 'LIP BALM' – A simple 20ml pot of flavored lip balm. The sea is a harsh environment and post-dive it is likely that one will have salt crystals on lips/skin. DIVE-SHIELD LIP BALM provides a pleasant tasting/feeling lip treatment that takes away that post-dive taste with a soothing yet antibacterial balm that protects from dry, chapped or cracked lips.

Collectively, these products help prevent...

Onward transmission of oral infections between users
Onward transmission of site specific bacteria from dive site A to dive site B
Acquisition of bacteria from kit storage or transit situations
Acquisition of bacteria during diving – from aquatic life; fish, reefs, etc
Acquisition of bacteria from pollution in dive site water
Acquisition of bacteria from special circumstances e.g. pro- divers such as police divers have to dive in everything including sewage, recover bodies, etc...
Premature degradation of equipment – all neoprene equipment but especially BCDs.
Head colds, sinusitis, congestion, etc that might otherwise prohibit a dive opportunity
Damage to, or infection of, lips or skin post-dive

The Market

Analysis of annual dive training accreditations and current active diver statistics from the three largest dive associations (PADI, NAUI & BSAC) indicate a global dive market of six to eight million divers. The forecasted future market is three to four times this size. Some are professional (career) divers but most are recreational (sport) divers. By any measure this is a very large market. It enjoys a membership of loyal (even fanatical...) participants willing to spend considerable disposable income on their sport in order to travel, participate in, acquire certification, enjoy and protect their dive experiences.

Research indicates awareness not only of the existence of post-dive conditions being acquired during diving (the infection incidence rates are considerably higher than for the general population) but equally a paucity of means to address this problem. Divers are also very aware of the need to protect the marine environment so a product that protects them without tainting the aquatic life is particularly welcome.

To capture what is an open market, DIVE-SHIELD is introducing a safety initiative to deliver the product set as the de-facto dive industry standard. This self-policing in the industry is far preferable to the alternative – the possible introduction of draconian health and safety measures applied by external regulators.

The DIVE-SHIELD product set is one that retailers will have to be certificated to stock and sell. Stockists will be recommended and non-stockists' details will also be published so that discerning divers can exercise choice. Divers will be able to see which dive schools, resorts, etc take an interest in their healthcare and those which don't.

The product set will be available, along with DIVE-SHIELD membership, via the internet. Individual divers will be able to subscribe to an annual membership to DIVE-SHIELD thereby securing annual access to discounted DIVE-SHIELD products as well as to a massive online dive resource, other goods and services, newsletters, competitions, etc.

The complete package is designed to raise the bar on safety standards, give excellent value to the divers and provide the company with loyal customers seeking ongoing repeat business.

The resource site can be found at: www.dive-shield.com

The membership registration site can be found at: www.diveshield.clubexpress.com

Memberships allow the whole dive community to be a part of the DIVE-SHIELD safety initiative, support environmental programs with us and enjoy all the benefits of the product set provided at discounted rates. Non-members can buy DIVE-SHIELD product but without discount and without any of the many value-add benefits available to members.

Membership rates

Dive centers, shops, schools, resorts – annual membership \$300.00

Professional divers – annual membership \$150.00

Sport/recreational divers - annual membership \$100.00

Non/trainee divers - annual membership \$50.00