

# ALL ABOUT OZONE

Ozone is a natural gas found in the Earth's atmosphere. Ozone is created naturally in 2 ways. Firstly, UV rays entering the Earth's atmosphere create ozone when coming into contact with oxygen molecules and secondly during a phenomenon called "corona discharge" which takes place when lightning strikes occur in our atmosphere.

Oxygen molecules are made up of 2 oxygen atoms ( $O_2$ ). These oxygen molecules are split into individual oxygen (O) atoms which cannot exist alone without regrouping back into diatomic oxygen molecules ( $O_2$ ). During this recombination stage some atoms will regroup into loosely bonded tri-atomic oxygen molecules which are called "ozone" or " $O_3$ ".

Naturally occurring ozone is nature's defence mechanism against pollutants found in the Earth's atmosphere. Commercially, ozone is used to disinfect or sterilize contaminated water as well as to purify and deodorize air.

Ozone is the most powerful oxidizing agent found in nature and is widely used all over the world in hospitals, the bottling industry and municipal water treatment plants as well as commercial and domestic swimming pools and koi ponds.

Ozone attacks and kills bacteria and viruses 3000 times faster than chlorine yet it is safe for humans and the environment. This occurs when the highly unstable ozone molecules attach to other unwanted elements in air or water which has a neutralizing effect called "oxidization". Ozone kills bacteria, viruses and fungi as well as organic and inorganic matter through this process of oxidation.

An ozone generator produces ozone via the pulse injected corona discharge method through a mini-reactor (or detonator) and delivers the ozone to the swimming pool or koi pond via a venturi valve system.

An Ozonated pool or body of water will be free of any bacteria or virus as well as microbial carcinogens (cancer-causing elements) as a result of ozone's powerful oxidising abilities.

The end result is gin-clear, safe, toxin free water for any and all to enjoy.