

Ingredient Safety

Chemicals

The word chemical itself should not be scary at all. It simply refers to a substance or compound either found in nature or artificially derived. This means even water is a chemical, as it is a compound of hydrogen and oxygen.

Chemical Sunscreen

The word chemical itself should not be scary at all. When it is used in reference to sunscreens, it is simply referencing that chemical sunscreens perform a chemical reaction. The chemical actives absorb the UVA/UVB rays and then release them as heat. The molecules get used up during this process, thus creating the need to reapply more sunscreen. The chemical reaction is what protects skin from UVA/UVB damage.

Reef Safe / Reef Friendly

More than 60 percent of coral reefs are at risk of being impacted by marine pollutants. Oxybenzone and Octinoxate are two active ingredients that have been identified to have potential adverse impact on coral reefs. Hawaii has implemented a ban on these ingredients that goes into effect January 2021, and other regions are beginning to implement similar bans.

Nanoparticles

Titanium Dioxide and Zinc Oxide (minerals) particles are measured and either fall in the nano or non-nano range. There is concern that nano-sized particles (small nano-sized particles) are unsafe for marine life and that they can be absorbed into the body, but the scientific community has not reached a conclusion on this. Australian Gold uses non-nano particles to avoid these risks.

Titanium Dioxide

In the EU, Titanium Dioxide has gotten some bad press because of the risk of inhalation. If nanosized particles are sprayed from an aerosol can into the air and inhaled, they can lead to respiratory problems and reach other parts of the body through the lungs. It is not recommended to use nanoparticles in sprayable formulations. For this reason, we do not put minerals in our continuous sprays and we only use non-nano minerals in our lotions. Source: Scientific Committee on Consumer Safety

Active Ingredient Absorption

In May 2019, a small clinical trial was performed to lay a foundation for a future study to determine whether certain active ingredients (Avobenzone, Oxybenzone, Octocrylene, and Ecamsule) are absorbed into the blood stream. They did find that they are entering the blood stream under the study conditions, which are not representative of how sunscreens are used (e.g. amount applied, sun exposure, etc.). It was a preliminary study and a full trial needs to be completed. It will be quite some time before a full trial is done. It is unknown if there are negative effects of these ingredients entering the blood. [Click here](#) to read the clinical trial.