

## FULL SPECTRUM ALCOHOL PLANT EXTRACTION METHOD EXPLAINED

## ALCOHOL EXTRACTION VS. CO2 EXTRACTION

There are several profound differences between Co2 (Carbon Dioxide) and alcohol (food grade ethanol) extraction concerning polarity and bio-availability of a finished FULL SPECTRUM hemp product.

Co2 (Carbon Dioxide) is a liquid gas and only extracts the non-polar (oil-soluble) chemicals of the hemp plant. Alcohol, on the other hand, is a solvent that is made by plants to extract other plants, and is the only plant-derived solvent that maintains original plant chemical ratios after extraction. In other words, it can extract both non-polar (fat / oil soluble) and polar (water-soluble) constituents of the full spectrum plant profile.

Co2 (Carbon Dioxide) extraction results in a limited extraction of the plant in finished full spectrum hemp products. Since Co2 extraction results are non-polar, the extracts cannot be water soluble... and since pets bodies are made up of 60-70% water, fat-soluble or "non-polar" plant extracts must be digested by specific acids and natural enzymes to become bioavailable. The actives in oils can be degraded during this process.

In addition, Co2 extraction does not initially result in a finished product. Co2 extraction can leave unhealthy by-products in the final oil such as plant waxes, fats, and chlorophyll. When Co2 is used as the initial extraction method, the raw extract must be "winterized" by placing it in ethanol, heating and then finally freezing the finished product to remove these unwanted by-products. Since alcohol extraction (made by plants for plants) naturally results in both non-polar and polar (fat-soluble AND water soluble) extracts from the plant, it is capable of extracting a far superior and much broader scope of constituents, compounds and molecules that include the whole plants' medicinal oils, polysaccharides, carboxylic acids, and other beneficial plant chemical compounds.

Our method of extraction uses food grade alcohol, It resulting in a pure, whole, solvent-free finished product that keeps the plant extracts intact (both fat and water soluble compounds). Our test results for <u>each batch</u> we sell showing ZERO solvent residual are posted on our website with full transparency.

After rigorous research and consulting with pharmaceutical engineers, we chose the plant-based alcohol extraction method for all of our full spectrum hemp products which pulls both polar (water-soluble) and non-polar (oil/fat soluble) resulting in a safe, clean, pure, consistent, potent product every time.