



SUPERCritical CO₂ FLUID EXTRACTION

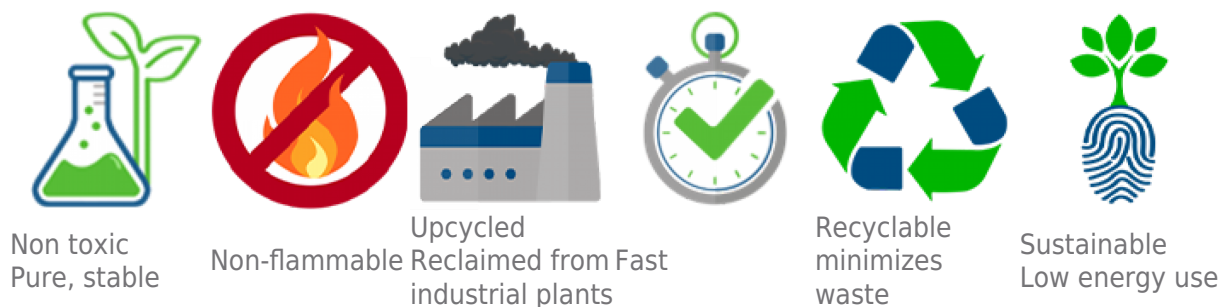
Supercritical fluid extraction of liquids and solids (SFE)



Eco-friendly extraction of compounds without organic solvents.

Supercritical Fluid Extraction (SFE) with CO₂ is a clean, safe and pure alternative to extraction through organic solvents for cannabis and plant-based extraction, as well as for pharmaceutical industries.

De Dietrich Process Systems is the exclusive distributor and agent in Europe, Middle East and Africa of [Thar Process](#), a pioneer and leader in this technology.



ECO-FRIENDLY PROCESS

With the adequate temperature and pressures, carbon dioxide migrates into a supercritical phase where it behaves as a gas and a liquid, and becomes an effective solvent.

Supercritical CO₂ extraction is eco-friendly as it reduces the need for organic solvent. What's more, It is recyclable.

Finally, CO₂ effectively preserves the chemical composition of extracts and don't leave residues on the extract.

CO₂: CHEAP AND UPCYCLED SOLVENT

CO₂ is a cheap solvent that can be upcycled, meaning captured from existing industrial processes.

Supercritical CO₂ fluid extraction is also an energy efficient process.

SAFE

Compared to organic solvent, supercritical CO₂ is a pure and stable solvent. It is non-flammable. Supercritical CO₂ extraction is completely free of controversial organic solvent. CO₂ can also be certified organic.



FROM LABORATORY TO INDUSTRIAL SCALE EQUIPMENT

With the equipment developed by Thar process, you can extract from 10 kg to 10 metric tons per day.

Solutions designed by Thar Process are focused either on extraction speed (SuperFast™) or on

extraction efficiency (SuperPressure™).

TUNING AND SCALING-UP THE TECHNOLOGY

The best conditions for each customer's needs are tailored and optimized with laboratory and pilot scale trials. They will be performed with the help of Thar Process in De Dietrich's Tech Lab facility in France, with dedicated equipment.

PLANT-BASED AND PHARMACEUTICAL APPLICATIONS

Supercritical CO₂ extraction (SFE) main applications are:

- CBD and cannabinoid industry, for pharmaceutical or nutraceutical industries
- EPA / DHA industries (omega-3)
- Natural extraction for Flavors, Fragrances and cosmetics
- Vegetable oil industries

Questions? We are here to help.

If you'd like to talk with a sales representative about purchasing De Dietrich Process Systems's products and services, you can reach us here.



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