



PURPOSE:

This document is a standard operating procedure (SOP) intended for Abstrax Tech's valued customers. This SOP is meant to establish the proper guideline for general compounding of tinctures using Abstrax terpenes for flavoring. Keep in mind this SOP is a guideline and the exact percentage of terpenes appropriate for your particular product can vary from 0.5% to 17%. This protocol is intended to be carried out by trained professionals in a licensed facility that is properly suited for this SOP. This procedure is best utilized in a designated formulation area in the licensed laboratory. All the personnel and facility safety requirements should be inspected before procedure begins. It is the responsibility of the staff formulation chemist to carry out this task. It is the primary responsibility of the formulation chemist and secondary responsibility of the compliance officer to verify the SOP is followed accurately, precisely, and yields a quality product with completed data and samples made for quality control (QC) testing. This document is not to be shared.



PERSONNEL AND FACILITY REQUIREMENTS:

Employees must have the following personal protective equipment (PPE) to be in the formulation area:

- Powder-free nitrile gloves
- Lab issued safety glasses or goggles
- Lab issued lab coat
- Long pants
- Closed-toed shoes
- Hair net (including beard net, if employee has facial hair)
- Respirator or mask (optional)

Employees must have these tools and materials on site to fulfill this SOP:

- Pyrex Mixing Beaker (Volume of beaker = double the mass (g) of your final product)



- Hot Stir Plate
- Magnetic Stir Bar
- Scale (5000g MAX, 0.01g precision)
- Stainless Steel Micro-spatula
- Smaller Pyrex beaker for terpene transfer
- Mixer with clean attachments (homogenizer optional)
- Cannabinoid Oil / CBD Isolate (Oro)
- Abstrax Terpene Blend
- Pipette Pump
- Glass Pasteur Pipette
- Infrared (IR) thermometer gun

LOCATION:

Formulation room (non-classified area). Note: This room is not meant to contain any amount of flammable solvent unless specifically stated in SOP. Only diluted isopropyl alcohol is allowed specifically for cleaning purposes. Any by-products must be bottled and stored properly according to this SOP. Keep solvents away from formulation area to avoid cross contamination. Be sure to check on room filtration to avoid cross contamination from outside conditions.



PROCEDURE

Pre-Filling Procedure

1. Have all materials CLEAN and available before starting the blending process.
 - a. Cleaning: clean beakers and tools with isopropyl alcohol, wipe clean with lint-free towel, then heat gun the beaker and/or tool until dry.
IMPORTANT: The last step of cleaning all beaker and tools is to rinse with Reverse Osmosis (RO) or (DI) Water. Dry the water by wiping with a lint-free towel followed by the heat gun.
 - i. Warning: Do not use heat gun on any flammable solvents.
2. Look at your quantity of cannabinoid oil, desired terpene formulation, and cutting agent (if used). Calculate how much is required from each and weight to make sure there is enough for this batch formulation.
3. Tare the beaker
4. Heat the oro in a forced air oven set to 190°F. This will require 30-60 minutes. For immediate heat up procedure use the procedure below for a utilizing a microwave. Use the IR thermometer gun to monitor temperature. (Never heat terpenes in a microwave)
 - a. Make the sure the vessel the oro is in is at room temperature. NEVER heat a vessel straight out of the fridge or freezer it has a high chance of fracturing and leaking the oro into the microwave.
 - b. Heat the oro in a microwave safe vessel (glass or pyrex) without



the lid in the microwave for 1.5 minutes at power level 8. Heat for additional 30 second increments as needed to make the oro have the desired viscosity/fluidity.

- c. The goal is to get the oro to 140°F - 150°F. (or 60 °C – 65 °C if you are reading in celcius)
 - d. Warning: Be careful not to overheat cannabinoid solution, degradation/isomerization can occur which would alter your final results.
 - e. When removing from the microwave be sure to wrap the oro container in a hand towel to reduce chances of being burned as well as keep the oro from cooling down too fast.
5. Pour the oro into the tared beaker to desired weight that has already been calculated and written down on the data sheet the exact weight of oro that was transferred.
- a. It's OK if this value is not exact! If the value is not exact more math is required to finish the flavoring process.
6. Weigh cutting agent portion in large beaker (for tinctures, generally MCT oil is used).
- a. Weigh and add cannabinoid portion.
 - i. For most oils, you may have to heat the substance in order to properly pour it. You may have to use a stainless steel spatula to scrape solid substance.
 - ii. For most isolates, use a weighing boat to pre-weigh powder.
 - iii. Your isolate and oil may need heat and stirring to dissolve in



your cutting agent. You can use hot stir plate, or mix by hand with spatula over heat to facilitate homogenization. Be sure to not allow your solution to reach above 65°C.

iv. Keep on heat and stir until all crystals are dissolved.

7. Weigh and add any other oils you wish in your formulation. Continue stirring to allow for thorough homogenization.
8. Cool to below 40°C. Once below 40°C continue stirring and add terpene flavoring components mixed thoroughly.
9. Tare tincture bottle on your calibrated scale, fill with desired amount of tincture formulation. Cap bottle with dropper tightly.



CONCLUSIONS:

This document is intended to establish the proper protocol for general compounding of Abstrax terpene formulations into cannabinoid tincture solutions. This protocol is intended to be carried out by trained professionals in a licensed facility properly suited for this SOP. This procedure is best utilized in a designated formulation area in the licensed laboratory. All the personal and facility safety requirements should be inspected before procedure begins. It is the responsibility of the staff formulation chemist to carry out this task. It is the primary responsibility of the operator and secondary responsibility of the compliance officer to verify the SOP is followed accurately, precisely, and yields a quality product with completed data and samples made for quality control (QC) testing.

*If you'd like to see more SOPs from Abstrax Tech please inquire online at Abstraxtech.com, Instagram @AbstraxTech, or contact us directly at info@abstraxtech.com.