

# **DISCLAIMER**

For use by professionals only. By purchasing or operating any equipment in accordance with this operating procedure you, as the operator and consumer are assuming all risk and liability associated with operating equipment in accordance with this SOP.

WARNING: Failure to follow safety precautions of all equipment can result in hazardous consequences such as: Physical damage to yourself, others, surrounding property, etc. Material data safety sheets should be available in the laboratory on all chemicals used in this process.

The following personal protection equipment should be worn by all lab personnel during extraction and preparation:

# EXTRACTOR SOLUTIONS THCA

# **Recrystallization In Pentane**

FOR SLOW CRYSTALLIZATION OF LARGE DIAMONDS

STANDARD OPERATING PROCEDURES FOR THCA CRYSTALLIZATION (DIAMOND MINING) IN PENTANE. ~USING A VACUUM OVEN.

# **Personal Protection equipment**

- Splash goggles
- · Lab coat
- Breathing mask
- Gloves

# **Equipment & Tools**

- Mason jar or Diamond Miner
- Stirring tool PTFE or SS
- Vacuum oven







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## TIPS AND TRICKS

Impurities prevent the crystals from being able to form large structures. Run cold, Dewax and remediate your product to get the best results. Fast crystallization will generally give you smaller formations. Large formations can be made by slowly crashing out the THCa in solvent over the course of days or weeks. The hot tek SOP is only used for small formations. Covering the Pyrex dish with BPA/Phthalate free covering or lid will allow you to slow crystallization and give you bigger cleaner diamonds.

## RECRYSTALLIZATION IN PENTANE

1.Add one part crude oil/ THCa to 1.5 parts pentane OR add crude oil/THCa to pentane until THCa no longer dissolves.

- 2. Filter out undissolved THCa, At this point the liquid solution should be at super saturated levels where THCa will begin to crash out. (If mixing 1:1.5 THCa/Pentane, some pentane will need to be removed to reach proper saturation needed for growth. Burp the vessel by releasing excess vapor pressure until THCa no longer dissolves in the solution.) (Seed Miners. Once supersaturation levels are achieved and no more THCa will dissolve in pentane, Add pre-crashed THCa diamonds to the mixture as a seed. The precipitating THCa will bind to the seeds and help with large crystal growth.)
- 3. Close Diamond miner / lid of mason jar / cover pyrex dish to create a seal as to prevent vapor from escaping rapidly.
- 4.Place in vacuum oven at 97F for 1 to 2 weeks and follow steps 5-8.
- 5. Monitor Solution, We are trying to keep the saturation level in the zone that is ideal for growing large, clear crystals. If the saturation level of THCa is too high, The THCa will crash faster allowing for more impurities to form in between the lattice of the crystal structure. This fast crashing creates smaller, less clear diamonds. If the saturation level is too low the THCa will not precipitate and the solution will remain as a clear liquid. Check every 24 hours to evaluate the progress of the nucleation sites. \* a great way to evaluate saturation levels is to add a seed to the solution and see if it dissolves. If the seed is insoluble or shows signs of growth you are in the ideal saturation zone.
- 6.If the pentane solution is not crashing out THCa or is dissolving your seed, you will need to burp or release some solvent from the jars to reach the supersaturated levels needed for crashing.
- 7. It is recommended to mix the contents by moving the container so so that nucleated THCa can better interact with suspended THCa molecules rather than forming new nucleation sites.
- 8. Pour off the remaining pentane and terpene layer to separate the diamonds. re-crash remaining THC from terpenes layer or purge solvents for use with HTE.
- 9. Optional Wash large diamonds. Wash THCA diamonds with lukewarm water to remove terpenes from outer structure, then wash over a small amount of pentane to add clarity to the outer layer of the crystals.
- 8. Purge residual solvents in a vacuum oven at 100F.