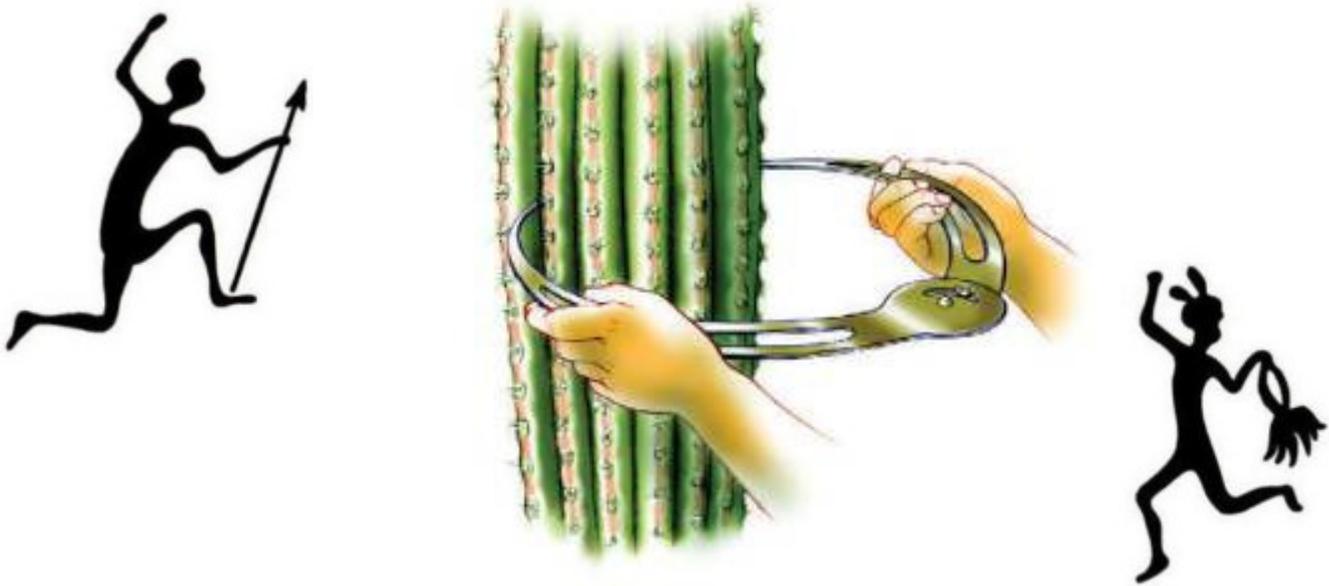


San Pedro

Mescaline Extraction



A Full Extraction Technique Guide with Pictures

Adapted by FrostyC from a post by 'mind' on De Hollandse Psychonaut Forums.

FORWARD

The isolation of mescaline from cacti containing this alkaloid is not difficult to perform and is perhaps one of the most rewarding alchemical processes that one can attempt. The chemicals required for this process are readily available and their purchase arouses no suspicion or interest on the part of government agencies.

[This may no longer be true, use reasonable caution when purchasing any chemicals].



Photo by RobMarley420

The equipment employed is not expensive or particularly complicated. Also, it can be constructed very easily from ordinary household items. The entire process can be carried out in any kitchen in a matter of hours by following the instruction below and in the final stages one can verify the success of the procedure by actually watching the crystals of mescaline precipitate in the solution.

- PEYOTE & Other Psychoactive Cacti by Adam Gottlieb 1977

Now to begin.

The raw material for the extraction was midwest suburban grown San Pedro. I ran approx 20 clay pots with an average diameter of 10 inches. The pots were started with 12-18 inch tip cuttings rooted in lime soil mix. The picture below shows the cacti wintering dormant inside. They are not growing indoors.



The cactus was harvested with a smooth sharp knife and a pair of heavy pruning shears when it was required to cut through woody joints. I left twelve-eighteen inch stalks in the pots in order to allow quick regeneration.

In **no case**-should any aluminium cookware, containers, or utensils be used at any point during the processing or retrieval of Mescaline.

The harvested cacti were washed and scrubbed with a stiff vegetable brush, using liquid detergent, then rinsed well. It was then sliced lengthwise into quarter strips and fed into a 1/2 hp garbage disposal. A siphon stream of Distilled or RO Water acidified with 20 mls of concentrated H₂SO₄ (Sulfuric Acid) per 5 gallons was used to assist the processing.



^ Sorry about the mess. You see the 1/2 HP garbage disposal (courtesy of OneDiaDem) mounted in a printer stand with the discharge tube going into a 7 gallon food grade plastic bucket. You can see the end of some cacti columns on the coffee table in the rear of the photo.



^ The consistency of elephant snot with lots of chopped grass for body. Needs water to process through the disposal though.



^ A whole stalk disappears down the hatch. I found it was better to feed in sliced strips than entire stalks like this, this popped the motor protection circuit and required a cool down.



^ That started out as a stack weighing 50lbs at the start of this grind.



^ Poking it on through... That's a good shot of the raw material I had to work with. The coffee table is 4-1/2 feet long, most stalks go from end to end (or pretty close) that harvest is a 4 year grow from 20 pots. There is a lot still unharvested, but I got enough.



^ Now we are rolling. The plastic carboy contains RO water acidified with about 20 ml of concentrated H_2SO_4 to aid the grinding and extraction. Cutting the cactus into strips also speeds the process and lightens the load on the disposal.



^ The raw product: foamy elephant snot with chopped grass. 🤢





The raw acidified cactus pulp was poured into a stainless steel pot and placed in a large pressure cooker where it was brought to 15 lbs steam for 45 mins to break down the plant cells, denature the slimy proteins, and release the juice.

The cooking process used a "double boiler" arrangement to prevent scorching the cactus pulp. The pressure cooker had several inches of water in it, the stainless steel pot containing the cactus pulp sat in the water on a stand-off plate, so it cooked in a water/steam bath. This slowed the cooking time, but prevented scorching the goodies.

Once the cooking was completed, the hot pulp was dumped into a dress shirt rubberbanded around a 5 gallon bucket to filter and the free liquid was strained off. After draining, the shirt was carefully removed without dumping pulp, and the whole works was then transferred into a wine press. The shirt was left in place as a filter, the arms were cut back, and extra material was folded over on top and covered with the press plate. The pulp was slowly squeezed down to about 1/3 of it's original volume.

Cactus requires chopping, heat, and pressure, and a lot of all of it, to give up the goods.

The first liquid extraction produced 23 gallons of strong juice.

The squeezed pulp was dumped into a plastic cooler and 10 gallons of RO Water was added with about 40 mls of concentrated H₂SO₄. The pulp was allowed to soak and rehydrate for 48 hours and then the pulp was cooked, strained and pressed a second time.



After the second pressing all that was left of the solid plant material was blocks of fiber which were discarded. The second liquid extraction yielded 11 gallons of liquid.

All strained and filtered liquid from the acidic water extraction process (34 gallons) was boiled down and combined. I used a 10 gallon stainless steel brew pot on a jetted out turkey fryer for the boil-down. It puts out nearly two feet of flame and boils off water at about 2 gallons an hour. A vented hood ducted out the smell into the dead winter night.

Cactus Syrup Photos by Shroomvator



My boil-down resulted in ~5 gallons of Pedro syrup which was then strained into a 25 liter glass jug (carboy). To this syrup bottle was added 3 pounds of sodium hydroxide (lye, NaOH) slowly with plenty of agitation, then I added 1.5 gallons of xylene to set up an extraction. This process requires no defatting I discovered, the only oily plant material coming into the solvent is yellow chlorophyll and it does not de-fat effectively. There is a much easier process I discovered. 😊



^ 25 liter extraction bottle.

Cactus syrup on the bottom, a curdy layer of emulsion (it had just been shaken), solvent on top.



^ Closeup of the solvent layer on the extraction bottle.

Yellow tint is from chlorophyll picked up by the solvent (along with freebase mescaline.)



^ Siphoning solvent off from the extraction bottle for precipitation.



^ Into an empty solvent can for holding and pouring.



^ Solvent poured into a glass precipitation bottle. Notice it's clear.
At this point I diluted concentrated sulfuric acid with 2 parts of distilled water and began introducing squirts of dilute (but still very strong) acid from a dropper into the solvent.



^ Diluted sulfuric acid has been introduced into the solvent and the bottle has been shaken.
Mescaline sulfate crystals precipitate out of solution.



^ It's snowing!!! It's snowing!!!! 🤪



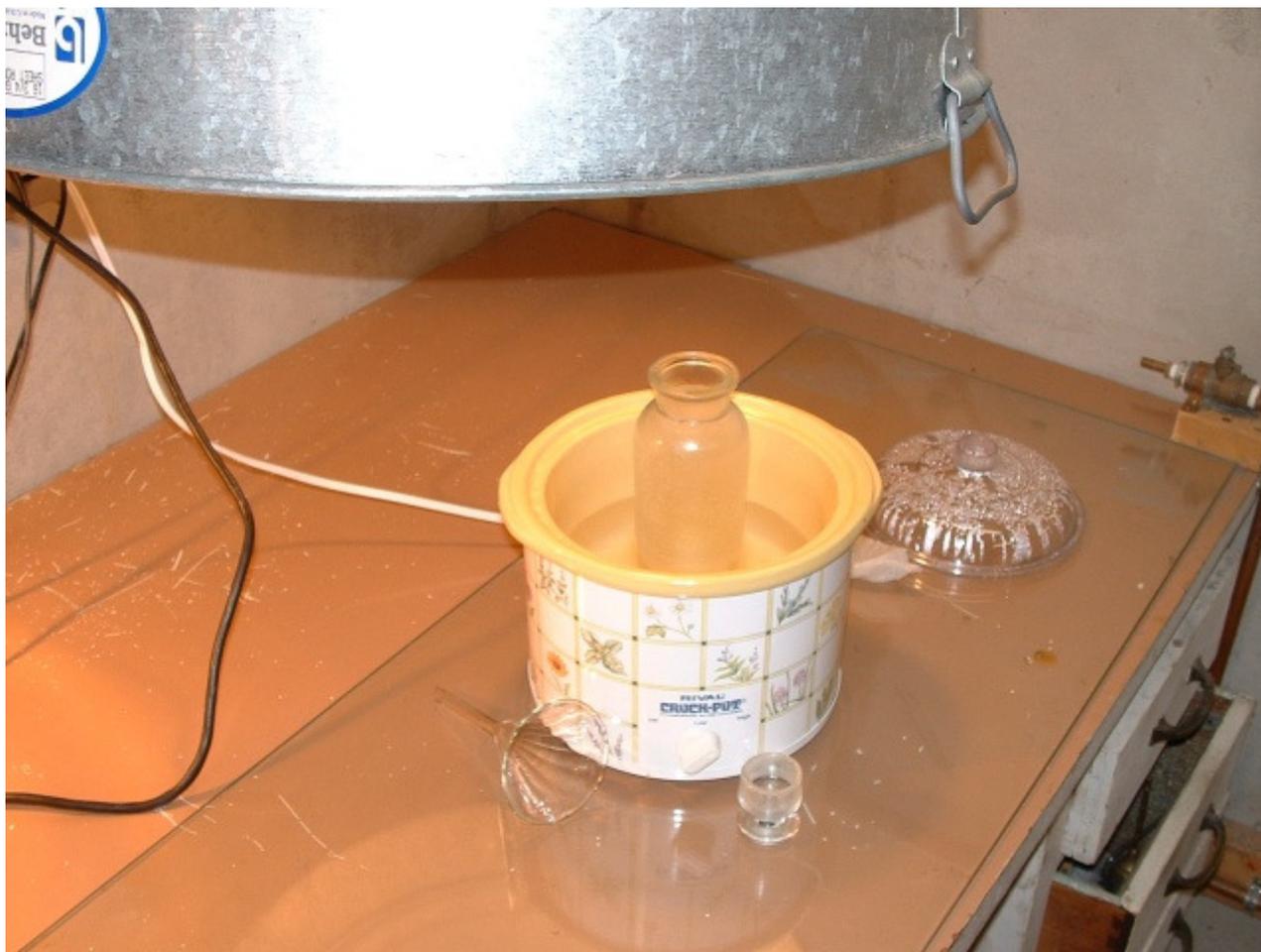
^ Clumps of mescaline sulfate drop to the bottom.



^ Returning the exhausted solvent back to the extraction bottle.
A pound of lye (sodium hydroxide, NaOH) has been added & gently worked into the syrup previously.



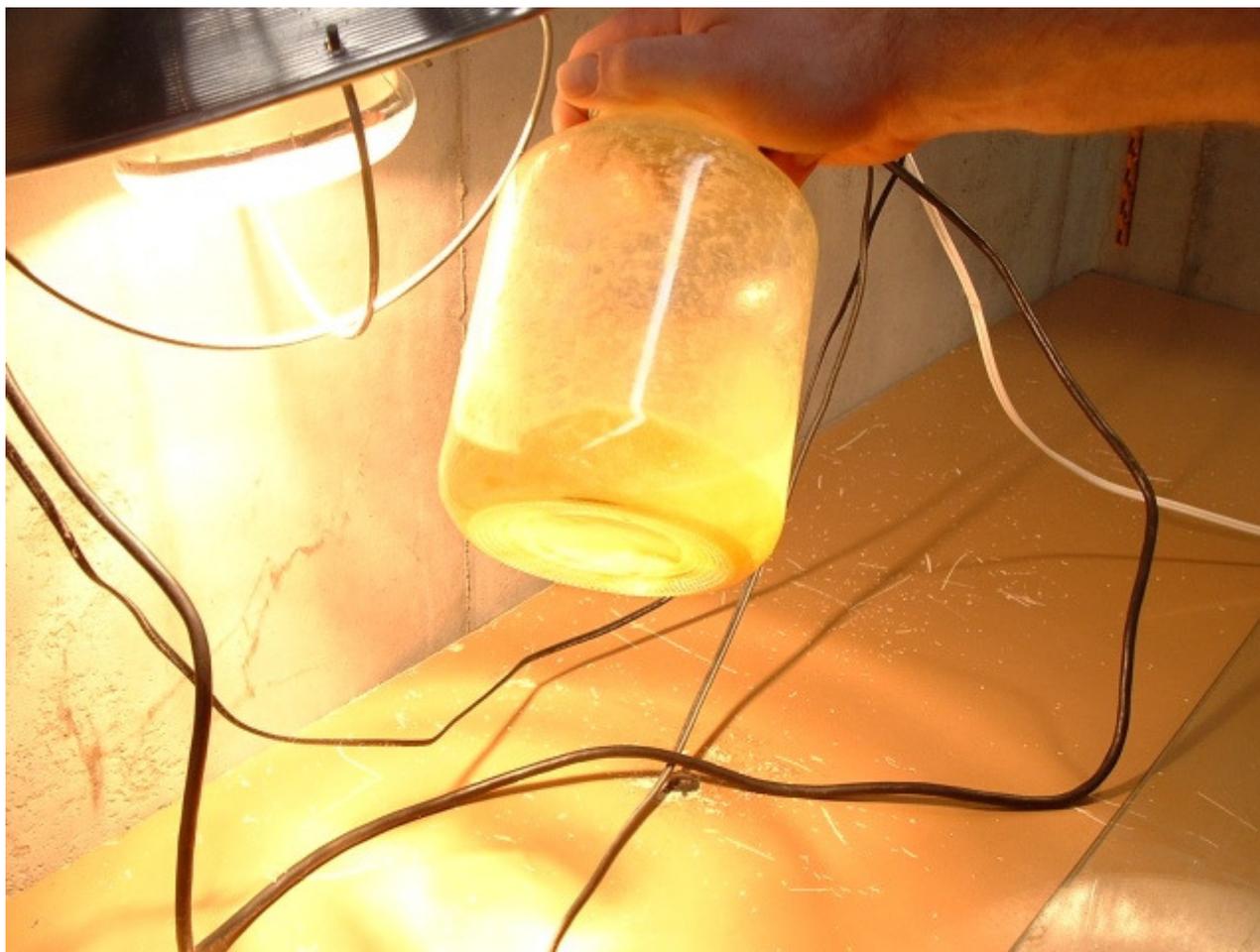
^ Rolling the extraction bottle on carpet to mix the solvent and syrup up for the next day's precipitation.



^ The wet precipitation bottle is placed in a crock pot to dry off the solvent. That upside down wash tub is actually my vented hood which deals with the vapors. 😊



^ Mescaline sulfate crystals coat the glass walls too.



^ The one pint precip bottles take too long when working with over a gallon of solvent a day... This 50 oz apple sauce jar finds itself coated with mescaline too. 😊

At the end of every precipitation, I added another pound of lye to the syrup/solvent extraction bottle and worked it several times over a period of hours before setting it up to settle overnight for the next days precipitation.

Some more detailed notes on the handling the precipitate:

Once the solvent is poured off the mescaline sulfate (and it matters not what drug salt you are working with really) you will end up with solvent wet bottles (highly flammable guys) containing a slurry of water, acid, and salted out drugs in the bottom.

The best way to dry these is in a hot water bath under an exhaust hood to vent the fumes. There are cheap ingenious ways to work around (I once did this in a dorm room and dried/vented the bottles with a two holed rubber stopper, some plastic tubing, and an aquarium pump which exhausted out a crack in the window. The bottles were heated with hot water ferried from the bathroom down the hall.)

A crock pot and a ventilated hood are the best.

The precipitate on the bottom of the bottle is likely to go into solution upon heating. It will darken too as extraction residue (like my yellow pigment) oxidizes from exposure to acid, heat, and air. I let the precip bottles stay in the hot water bath for about an hour under moving air before I am ready to wash the precip bottles out.



A wash bottle is filled with distilled water and placed in the crock pot. Hot water from the wash bottle is sprayed into the precip bottle to dissolve all the solids. The warm precip bottle is capped and shaken thoroughly, then the liquid is emptied into an glass storage bottle. The precipitation bottle is then washed again with a few mls of hot water and all the rinse water is collected. The idea is to use as little water as possible, and all water used must be Deionized or distilled or you will have problems later.

Now every day I collected more washed solution from my precipitation bottles. To help control the liquid growth I rested the wide mouth glass storage bottles containing my collected precipitate solution in the crock pot set on low. I had a bucket of water set nearby and a syphon hose going into the crockpot to maintain the water level. This keeps the collection bottles heated, driving off much of the water and makes highly acidic concentrate. It also drives off solvent residue and solidifies gum. This accomplished a complete defatting and concentration without the use of another chemical step and it worked beautifully. Gentle application of heat over a day or two. 😊

So I took all my jet black acidic concentrate. Combined it in a large beaker, and added strong ammonia to neutralize the acid. I added too much and make the solution very basic (it's called a titration, they are a little tricky, I had not done one in a while, and I was anxious)... No big deal, it makes things a little salty after you add acid back in to compensate. You want the pH at 7.0 - 7.2

BTW, I was working with 400 mls of very acidic concentrate. It took 200 mls of strong ammonia to neutralize the acid in the concentrate, and push it the other way making it basic.

Anyways... The hot water bath, the acid, the air... It oxidized the residues in the concentrate solution. The solution turned jet black with a rich mescaline smell and the oxidized gum, oil, and pigment began collecting on the glass walls of the heated storage bottles. Fresh moving air took away the volatiles. I let the solution cook for 36 hours. Then as soon as the acid solution was neutralized with the ammonia, the oxidized gum, oil, and pigment clumped up and collected like soot on the stir rod and the sides of the beaker... The crap precipitated out of solution and the concentrate cleared to a remarkable degree. I used a filter disk cut from a cotton/polyester shirt and caught big chunks of this burnt crap with a fast filter. 🤢🤢🤢

First time I have tried this, I was very pleased. Heating the precip concentrate solution for a good while really simplifies the cleanup.

Then I added activated carbon, boiled, let it sit until cool (overnight is better) and that picks up the rest of whatever... I got remarkably clean solution. Still had some yellow chlorophyll, the solution had exactly the same yellow tint as the solvent in the extraction bottle pictured above. That's pretty damned clean.

Once again: The trick is gently heating the dark mescaline concentrate solution in a crock pot (or by other similar means) for a day or two (steady, below boiling temps) in order to oxidize the unwanted crap. When you add ammonia to neutralize the excess sulfuric acid in the concentrate, the crap will precipitate out when the pH hits about 7.2. At this point a fast filter through cloth will pick up most the oxidized residue that did not stick to the beaker or stir rod. Polyester cloth filter material seemed to be a magnet for this crap.

To this cloth filtered solution I added a couple of tablespoons of activated carbon (partially powdered), stirred, boiled, stirred, let cool overnight. The solution was then slow filtered through fine paper to remove the carbon dust. This leaves the mescaline sulfate solution very clean.

Pop it in the freezer. As the solution drops to near freezing, light tan mescaline needles grow out in the yellow tinted solution. The slower you drop the temp, the larger the crystals get. Fast cool = small crystals (good for tooting) slow cool = long fat shards of mescaline (nice for show but need to be dissolved in water to dose). Anyway the cold crystals/solution needs to be fast filtered through cloth in order to get the liquid out from under the crystals. Once the solution is removed from the freezer or sub zero bath it begins to warm, as it warms mescaline sulfate that had been crystalized goes back into solution. The solution must be filtered ice cold, and the liquid has to be removed from the crystals QUICKLY before the liquid warms and the mescaline goes back into solution. The filtration can be done through cloth in a big funnel in the freezer, but I use a vacuum funnel...

In fact I use this exact rig minus the fancy vacuum machine (I use an Aspirator Pump.)

The right tools for the job. 😊



^ That is mescaline sulfate produced by this process and ready to use. The curly object on the plate in the upper right is the cloth filter disk used to separate solid mescaline from the liquid solution it was crystallized from.



^ Sorry I did not get the weight beam fully included in this pic. The scale was tared with the waxed paper on there, the weights actually read 17.7 grams.

First crystallization!!! I was so pleased! 🥳🥳🥳

Let's see... There is actually good detail in this photo too. The white bread plate is the same in both photos. The mescaline being weighed is minus the filter cloth and some loose needles... Still on the plate. The cloth disk was weighed previously at 1.0 gram, it was coated in mescaline and weighed in at 2.0 grams later, the loose needles totaled .25 grams.

You see my gas burner there right above the plate, this crystallization only required one brief lab boil. 😊 Above the gas burner is a 1 liter beaker with about 100 mls of raw mescaline solution. The color is correct, it looks like dark crude oil. The beaker is greasy with acid oxidized chlorophyll... That's what mescaline precip concentrate solution looks like.

The solution that passed through the vacuum filter was combined with the last of the precip and washed waste (filter papers etc)... The pH was adjusted again, a second dose of activated carbon, a hot filter... Then the liquid was boiled down to 300 mls and cooled again to produce another 13.7 grams of mescaline... And the solution still holds more I need to work out yet. It's a good process, low loss, high yield if you have the raw plant material to work with.