



## **NHR ORGANIC OILS LTD**

### **5L & 20L Copper Still Distillation Kits**

#### **SAFETY TIPS**

Distillation can be dangerous if you are inexperienced and do not pay full attention when using the alembic.

First and foremost, allow yourself enough space to work in. Your distillation area should be well lit, clean and well ventilated so that the vapours can circulate and will not accumulate.

Before starting the process of heating your still, please ensure that there is nothing obstructing the pipes which could cause a pressure build-up in the still. The alembic helmet should be placed loosely on top of the pot, so that it may easily come off should pressure build up occur.

If this is your first time distilling, please make sure you research basic distilling rules.

Be careful not to overfill your alembic. As a general rule do not fill your pot more than  $\frac{3}{4}$  of its capacity. This will allow enough room for vapours to collect in.

Monitor the temperature at all times. Do not allow the liquid in the alembic to boil uncontrollably. The heat source should be at a high strength at the beginning of the distillation and reduced when reaching boiling point. Try to maintain the liquid at a slow boil or simmer and be careful not to let your still run dry.

#### **CLEANING AND MAINTENANCE**

Before using your copper still for the first time, we recommend that you process a distillation of water to clean away any residue that may have been left behind from the manufacturing process.

It is important to clean your still after each use, so that it lasts you a lifetime.

If you use your still just once a year, please make sure that it is carefully cleaned before putting it away for next year's distillation. The cleaning process will eliminate any sulphuric acids or other harmful substances that have collected on the walls of your still. You can carry out a cleaning distillation with a mixture of rye flour and water. Simply fill 40% of your pot's capacity with a water and 5% rye flour mixture. Complete distillation as you normally would. If you use your still frequently, you do not have to clean it out with rye flour and water. A single distillation using only water will be fine.

With regular use and with time, copper oxidizes and will gradually turn a dark shade of red. Should you wish to polish the exterior, please use an appropriate non-toxic polish, and it is important to not use abrasive materials. You can also clean your pot with one of two traditional methods: rub

with a cloth dipped in a salt and lemon solution; or use the ashes from the wood fire (if you used this as your heating source) on a damp cloth.

During the distillation process, essential oils will stick to the walls of the pot and copper coil, and will start to form a sticky crust. You should always clean your still with warm to hot water to eliminate any grease that sticks to the alembic.

Please note that alembics used to produce essential oils should not be used for alcoholic spirits as well. Oils will naturally impregnate into the copper and can influence the spirits which may become improper for human consumption.

## **SEALING METHOD**

The copper stills are handcrafted and therefore always unique with no two ever made identical. Each lid is made to fit into each pot, but there might be a little slack between the separate parts. To prevent any vapours from escaping, a very simple technique can be used to seal the alembic. Mix rye flour with some water to make a soft dough in a small recipient. Then using your fingers, rub the mixture into the joints of all parts where leaking could occur. Should a leak occur when vapours start to rise, simply add some dough to that particular area.

Another method is to use silicon tape, or any other sealing tape that will sustain high temperatures. Careful not to tape the alembic joints excessively as the idea is to seal off escaping vapours while still allowing the alembic helmet to pop off if an obstruction in the piping causes excessive pressure to build up.

## Instructions for 5L & 20L Copper Still Distillation Kits



- A** Column Filter
- B** Maximum Water Level
- C** Boiler
- D** Condensing Container
- E** Water Overflow Outlet
- F** Distillate Outlet (behind)
- G** Water Inlet

1. Before each distillation, sterilize the internal parts of your still by allowing hot steam to pass all the way through until it comes out of the distillate outlet **F**. Fill the boiler **C** with water, ensuring you do not exceed the maximum level as indicated by **B**. Keep the condensing container **D** empty of water. Heat the still and bring the water to a rolling boil.
2. After steam sterilization, distil water until it is clear, tasteless and has a neutral PH. Use a rubber hose to connect inlet **G** to a water supply. For best results use a slow constant trickle of water. Connect outlet **E** to a rubber hose to allow excess water to flow out. The water can be recycled by collecting in a bucket and reconnecting to the water inlet via a water pump in a loop system. Alternatively, you can block the inlet **G** and place water and ice into the condensing container **D**. More ice can then be added if required and the outlet **F** will allow excess water to flow out.
3. You are now ready to distil your plant material by placing it into the column filter **A**.
4. When the water boils, steam will pass through the plant material and distillate oil and water can be collected from the distillate outlet **F**. (Please note we do not provide an oil separator.)
5. After distillation, wash well with mild soap and hot water (it is important that the inner cooling cone is washed well) and make sure there are no obstructions in the pipes. Dry with a cotton or lint free cloth; never leave copper parts in contact with liquids or vapours for extended periods of time. After thorough washing and drying, we recommend that the still is placed near a heat source to help any residual water to evaporate quickly. Store in a dry place.