INSTRUCTIONS FOR
PROHIBITION LIQUEURS & SPIRITS

We recommend you use a plastic fermenting container instead of the traditional glass version which may crack if shaken under pressure. If you wish to use a glass fermenting container, DO NOT SHAKE UNDER PRESSURE.

TO MAKE A MAXIMUM AMOUNT OF ALCOHOL YOU MUST BE ABLE TO MAINTAIN A CONSTANT ROOM TEMPERATURE BETWEEN 18ºC and 22ºC (64º - 72ºF). See helpful hints on reverse for more details about temperature.

It is essential all equipment is sterilised before use. We recommend you use Ritchie Steriliser/Cleaner.

1. Calibrate your fermenting container first by accurately adding 4.7 litres of cold water and then marking the level. See helpful hints on reverse for more details.
If your fermenting container does not hold 4.7 litres then please see "Problems" section, point (5) on the reverse.

2. Add 2 litres of cold water to your fermenting container, add 1 litre boiling water then add exactly 1600gms (3lb 8oz) of granulated white sugar together with the contents of the **Sucrose & Citric** sachet. Shake until completely dissolved. (Boiling water should not be added direct to a glass demjiohn without a plastic funnel. Even then, it is better to dissolve the sugar first in a jug which will reduce the temperature from 100ºC to around 55ºC, cool enough to add direct (without a funnel).

3. Carefully sprinkle the **Yeast** sachet contents into half a cupful of luke warm water which has first been adjusted to between 35º-40ºC (95º-104ºF). Leave to stand for 10 minutes without stirring then mix gently with the end of a fork to wet any dry yeast remaining on the surface. Leave for a further 5 minutes. Now **slowly** fill cup with cold water, stirring all the time, it is important this is done slowly to avoid temperature shock when warm yeast comes into contact with the cold water. Add this mixture to the fermenting container rinsing out any remains with a little cold water. Now add the contents of the **Yeast Nutrient** sachet. Top up to the 4.7 litre graduation mark with cold water and shake well.

4. Now fit an airlock (half fill with cold water) and leave the fermenting container at a constant room temperature between 18ºC and 22ºC (64º to 72ºF), for 2 to 3 weeks to ferment. **You will not produce over 20% alcohol unless you can maintain this constant temperature, do not use Heat Trays or Brewbelts unless they are thermostatically controlled.** See helpful hints for more advice on temperature control.

From 20ºC up to 25ºC (68º - 77ºF) there is a gradual reduction in the overall alcohol produced with final gravities ranging from 980 through to approximately 992. However, above 25ºC (77ºF) there is a profound reduction in the performance of the yeast, for example at 27ºC (81ºF) the final gravity is likely to be 1005-1020.

Do not continue to instruction 5 until there are no more bubbles in the liquid **AND** the liquid has started to lose its cloudy appearance. If you have a hydrometer, the specific gravity should drop below 990, and under ideal conditions will be as low as 980. See helpful hints for more advice on how to tell fermentation is complete.

5. At the end of fermentation, syphon all the liquid from the sediment into another clean container(s). Do not leave any liquor behind even if it means transferring a little of the sediment. Rinse out the fermenting container and return the liquor to it.

Now shake the **Charcoal** sachet until no lumps remain, carefully cut open sachet and pour contents into

fermenting container. Also add the contents of the **Stabiliser** sachet. The fermenting container should now be shaken on at least 6 separate occasions during the next 3 days (the airlock should be replaced after shaking). It is important this is done properly - if it isn't then excessive off-flavours will remain in the liquor.

6. After the 3 days shaking, add the contents of the **Kieselsol** sachet and swirl fermenting container contents **gently** for about 20 seconds. Replace airlock and leave to stand for 1 day before adding the first of the two **Chitosan** sachets (the second sachet will be added below). Again, swirl fermenting container contents **gently** for about 20 seconds, **DO NOT SHAKE VIGOROUSLY.** Replace airlock and leave in a cool place for 3 days to begin clearing.

7. After 3 days of clearing, (don't worry if not clear yet) carefully syphon all the liquor from the black sediment into a clean container(s) taking care to leave as much of the sediment behind as possible. Rinse out the fermenting container and return liquor to it. Now add the extra **Chitosan** sachet (if the liquid is brilliantly clear, this isn't necessary) and swirl the fermenting container **gently** for about 20 seconds. Replace airlock and leave in a cool place until brilliantly clear. If sediment sticks to sides of the jar, twist jar sharply first clockwise then anticlockwise, this may need to be done 2 or 3 times during this final stage. Brilliantly clear liquor is usually obtained in about 1 week.

8. When brilliantly clear syphon the liquor into a clean container(s) taking **great care** not to disturb or transfer any of the sediment. Rinse out the fermenting container and return the liquor to it. Now add the bottle/sachet of Flavouring and sugar based on the tables below.
The quantities suggested below are based on the sweetness levels of the commercial equivalent. However, these may be too sweet for your palate so we suggest adding say three quarters of the sugar, completely dissolve the sugar by continuing to stir and shake until all the granules have gone. Taste the liquor and if not sweet enough, keep adding further small amounts until the sweetness levels are to your palate. It is worth remembering that it is always possible (even weeks later) to make your liquor sweeter, but you can never make them dryer.

Types:	**Sugar Amounts:**
Amaretto	800gms
Apricot Brandy	750gms
Chocolate Mint	1050gms
Coconut Rum	350gms
Coffee Rum	800gms
Cherry Brandy	750gms
Orange	500gms
Cacao (chocolate)	800gms
Peach Schnapps	500gms
Sloe Gin	800gms
Scotch Mist	800gms

Whisky, Gin, Brandy, Rum and Vodka flavour does not need sugar.

The liquor is now ready for drinking, but will smooth considerably over the next few weeks. If you are making a liqueur the addition of 65ml - 100ml of Glycerol will improve mouth feel. Always store in a cool place.

PROHIBITION INSTRUCTIONS
HELPFUL HINTS FOR SUCCESS

Whilst the instructions are written to give maximum simplicity, it is important they are carefully followed. **This is not made like a wine kit, the key to success is to maintain a constant temperature of 20ºC (68ºF).**

THE "HOW TO" SECTION:

A) HOW TO CONTROL THE LIQUID TEMPERATURE
There are only 2 ways to keep the temperature at 20ºC (68ºF).
a) Use a theromostatically controlled heater and make sure the air temperature is below 20ºC (68ºF).
b) Keep a twice daily eye on the air temperature and move the fermenting container accordingly.

You will only make full strength liquor if the temperature is kept between 18º-22ºC (64º-72ºF).

B) HOW TO TELL WHEN FERMENTATION IS COMPLETE:
These are given in order of reducing reliability (1 is most reliable, 5 is the least).

1. Float a hydrometer in the liquor in a measuring cylinder. **Exactly** the same reading 3 days apart confirms fermentation has stopped (see "problems" below if above 990). If the reading is one point lower after 3 days then fermentation has not yet finished (it can be difficult to read 1 point on some hydrometers).

2. Airlock stops bubbling. You should be certain that there is no movement whatsoever through the airlock over at least 1 minute.

3. Liquor loses it cloudy appearance. This should be quite obvious if the fermenting container is regularly observed.

4. The liquor should taste dry. This indicates that all the sugar has been converted into alcohol. Be careful here though, if the liquor tastes sweet after 3 weeks from the start it can mean that fermentation has stuck (see the problems section).

C) HOW TO SYPHON: The trick is to purchase a good syphon tube with special attachment to prevent sediment being drawn up with the liquor. It is also important to have both hands free for the fermenting container being emptied and not needing one hand on the other end of the tube where the liquor is pouring into your second container. **Practice with water the first time.**

1. Set up fermenting container to be emptied on a firm work surface (best to do this before clearing so the sediment is not disturbed by moving the fermenting container to its syphoning position).

2. Set up the container to be filled below the work surface at a lower height but such that the end of the syphon tube will remain in the container even when the other end is moved further into the fermenting container (otherwise your floor and feet will get wet).

3. Place the end (with attachment) half way down the liquor (no more) and hold firmly with one hand. Continue

to suck the other end at a lower level until the liquor starts to flow over the top of the tube, then quickly place into the container (a second fermenting container is ideal). Now let go of the end where the liquor is pouring into your second container. Now concentrate on the fermenting container being emptied.

4. With one hand, gradually lower the attachment end of the syphon tube further down the fermenting container as the level drops. When about 3/4 empty, very carefully tilt the fermenting container so that the last of the liquor can be transferred,

Leave to re-settle if the sediment is disturbed.

D) HOW TO BOTTLE: Ideally, use second-hand spirit bottles with screw caps (these will not need to be sterilised). However, wine bottles can be used if you prefer. Wine bottles should be sealed with either plastic stoppers or straight/tapered corks. Corks and wine bottles should be sterilised first and corks inserted using a corking machine.

PROBLEMS?

1) Airlock stopped bubbling within 2 weeks. Fermentation will slow down dramatically after the first 2 weeks. Bubbles will hardly move through the airlock, but fermentation could still be taking place. Check whether fermentation is complete (see "How To" section above).

2) The specific gravity is not at 990. If you are sure fermentation is finished but the specific gravity is higher than 990 then this is due to poor temperature control. If the gravity is between 980 and 1020 we recommend you continue to instruction 5 (providing you are sure fermentation is complete) and keep a close eye on temperatures of your next fermentation. If the gravity is higher than 1020 we suggest you ring us immediately for more information. **Do not add any other make of Yeast or Nutrient.**

3) The liquor will not clear. If your liquor is not clear within 2 weeks of instruction 8 then please telephone or write to Ritchie Products Ltd. Rolleston Road, Burton-on-Trent, Staffs. DE13 0JT Tel: 01283 564161, so we can send additional ingredients to solve this problem. DO NOT ADD ANY OTHER BRAND OF FINING AGENTS, IF YOU DO, YOUR LIQUOR WILL PROBABLY BE RUINED FOREVER.

5) The fermenting container is not large enough to hold 4.7 litres. There should be at least 1cm space from the bottom of the neck to the liquid level to allow for frothing. If the volume is less than 4.7 litres when this is full then reduce the sugar by the 75gms (adding 1525 gms instead of 1600) and fill fermenting container as full as possible, allowing space for frothing.

If you have any queries or problems relating to your High Alcohol kit, please do not hesitate to contact us for advice :

Ritchie Products
Rolleston Road, Burton-on-Trent, Staffs. DE13 0JX
Tel: 01283 564161 Fax: 01283 537891
Email: info@ritchieproducts.co.uk Website: www.ritchieproducts.co.uk