

## SUPPLEMENTARY INSTRUCTIONS FOR USE OF VIGO KEEVING KIT

Stock Code: 94426



In addition to the translation of the French instructions provided by Sanico and the Safety Data Sheet for Calcium Chloride, these supplementary instructions must be read by the user in full before use.

The 1000 litre Vigo Keeping Kit consists of 14ml of CPME solution (concentrated pectin methyl esterase) and 500g of hydrated calcium chloride flakes. A 1ml syringe is provided for accurate measurement of the CPME dose.

The purpose of keeing is to reduce the nutrient level in the apple juice used to make cider. With a reduction of nutrients it is possible to make a relatively stable cider with residual sweetness. The products in the keeing kit make it possible to induce a process that can occur naturally.

The calcium chloride flakes contain about 25% water by weight. Dissolve the flakes in warm water and make up the total volume to 1 litre. This will give a standard 40% calcium chloride solution. The maximum recommended addition is 400mg per litre (400 parts per million). Therefore add no more than 100ml of the 40% solution per 100 litres of cider apple juice.

### **Instructions for use**

Opinion regarding the method of use of these products for keeing varies from maker to maker. For good guidance regarding the practice of keeing we strongly recommend that you refer to Craft Cider Making by Andrew Lea and his website [www.cider.org.uk](http://www.cider.org.uk)

We provide a translation of the original French instructions (by Sanico) for the CPME solution and a flow diagram outlining the sequence of the keeing process. Please note that this diagram does not indicate that the apple pulp should have been allowed to stand for 12-24 hours to macerate before pressing. This is an essential part of the process, to liberate pectin from apple cell walls. The advice below is given in addition to the French instructions.

The CPME enzyme should be added to the container in which the juice will be poured or pumped after pressing. In this way it will be well mixed. The recommended dose for the enzyme solution is 1.0ml to 1.5ml per 100 litres of juice, although larger doses may be required at temperatures below 10°C. The kit provided contains 14ml of solution. (For small volumes of juice use the syringe provided to measure the dose.) The manufacturers recommend that the enzyme is pre-mixed with 10 to 20 times its volume of water or juice to aid dispersion in the bulk juice.

After pressing the juice and mixing with the enzyme, the readiness of the juice for calcium chloride addition can be tested. Take a sample of one litre of the treated juice in a clear container, add 1ml of 40% calcium chloride solution and mix well by shaking or stirring for two minutes. Inspect the juice to see if there is visible flocculation of the tannins: a cloud of fine suspended particles or the appearance of coloured or translucent grains. If flocculation is apparent after about one minute the calcium chloride can be added. If not, repeat the process after a further, 3, 6 or 12 hours, depending on the temperature of the juice. Thoroughly mix the calcium chloride solution into the juice.

The *chapeau brun* crust is formed by precipitated solids being brought to the surface by CO<sub>2</sub> released at the start of fermentation. Because both the population of wild yeasts and the nutrient levels are low, there may be a delay of days or even weeks before the formation of the *chapeau brun* crust.

Instructions for the rest of the process are given in the translation from the French.

### **Shelf life**

Calcium chloride powder has an indefinite shelf life and should be stored in a sealed container away from strong odours.

CPME solution has a limited shelf life and should be stored in a tightly sealed container - in a refrigerator. The loss of potency is likely to be in the region of 1-2% per month of storage, meaning that after 12 months of compound loss the potency may be in the region of 80%-90% of the original strength.

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