

# TECHNICAL INFORMATION SHEET:

## PGA POWDER – FOAM CONTROL

**PRODUCT NAME:**

PGA POWDER

**Description**

PGA (Propylene Glycol Alginate) Powder is a specially prepared food grade propylene glycol alginate derived from brown seaweed. It is used as a beer and cider foam stabiliser.

**PRODUCT CODE:**

PGA

**COMMODITY CODE:**

13023900

**Benefits****PACKAGING:**

1 KG

- Protects beer foam against contaminants at dispense e.g. dirty glasses
- Enhances foam stability of beers with a naturally high level of foam inhibitors
- Improves foam cling to side of glass
- Improves measured head retention value in beers

**Guidelines for use**

- Check that the product is within its shelf life before use
- Carry out optimisation trials to determine the correct rate of use,
- Remember that PGA Powder solutions are temperature sensitive
- Use the product quickly after making up the solution
- Read the Safety Data sheet prior to use

**TECHNICAL SUPPORT**tel: +44 (0) 115 978 5494 | e: [techsupport@murphyandson.co.uk](mailto:techsupport@murphyandson.co.uk)**REGULATORY COMPLIANCE INFORMATION**

Refer to the **Product Specification Sheet** or contact us on  
tel: +44 (0) 115 978 5494 | e: [compliance@murphyandson.co.uk](mailto:compliance@murphyandson.co.uk)

**HEALTH & SAFETY INFORMATION**Refer to the **Safety Data Sheet (SDS)**

## Principle

Propylene glycol alginate is a molecule possessing both hydrophilic and hydrophobic portions, thus modifying bubble wall characteristics. PGA concentrates at the surface of the bubble with the hydrophobic end interacting with gas molecules inside the bubble and the hydrophilic part in contact with water molecules outside the bubble in the liquid forming the bubble wall. There is less attraction between the hydrophobic groups than there is between the water molecules in which the PGA is dissolved, so the surface tension at the bubble surface is reduced, stabilising the foam structure.

## Application and rates of use

The solution of PGA Powder should be added to beer after final filtration and not in combination with any other additions. This product requires special equipment to prepare, please purchase PGA Solution if unsure.

### Preparing the product before use

Before it can be used, the product must be dissolved in water:

- Set up a mixing tank with a high shear mixer (e.g. Silverson, Greaves)
- Fill the mixing tank with water at a temperature of between 30 and 40°C
- Turn on the mixer
- Add to the tank the PGA Powder at a rate of 20g/litre of water
- Mix until the tank contents appear to be homogeneous
- Filter the solution

An addition to beer of 0.2 litres/hl of a 2% solution of PGA Powder will ensure retention of beer head. To enhance the beer head, use a rate of 0.4 litres/hl. The maximum recommended addition of such a solution is 0.5 litres/hl.

## Optimisation

Optimisation of PGA dose is difficult on a small scale without expensive equipment. As with many things in brewing trial and error using different doses within the recommended rates of use is the best way to determine the optimum dose to use. However, there is a basic test which can be carried out which will offer useful information towards optimisation:

Add a range of doses of dissolved PGA solution to fixed volume of beer (e.g. 2, 3, 4 and 5ml in 500ml of beer in 1000 ml beakers

Pour beer from one beaker to an empty one from a set height.

Repeat ten times

After the repeat pouring, measure the head height

Then measure time taken for the head to collapse (to at least 50%)

## Storage and shelf life

- Keep in original container
- Keep containers sealed when not in use
- Recommended storage conditions are a cool dry place between 5°C to 20°C
- Do not freeze
- The shelf life at the recommended storage temperature is one year

<b>PRODUCT</b>	PGA SOLUTION	<b>PRODUCT CODE</b>	PGA
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<b>WRITTEN BY</b>	E Wray	<b>AUTHORISED BY</b>	RJ Haywood