



Kerry Food Ingredients (Cork) Limited  
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## PRODUCT SPECIFICATION

### PRODUCT DETAILS

Product Name	WHIRLFLOC T
Kerry Code	20267876
Legacy	5B00573

Product Description	An extract of red seaweed specifically formulated to coagulate unstable proteins in brewery worts. The product is produced in a self dispersing tablet form for ease of use.
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### INGREDIENT LISTING

Processed euchema seaweed (E407a), Adipic Acid (E355), Sodium Bicarbonate (E500), Sodium Hydrogen Carbonate [E500(ii)], Talc [E553(b)], Silicon Dioxide (E551), Fatty Acids (E570).

### USAGE / APPLICATION INFORMATION

Used as a processing aid in the manufacture and production of beer to coagulate unstable proteins in brewery worts.

#### WHIRLFLOC T OPTIMISATION

- 1) Take about 4 Whirlfloc T tablets and crush in mortar and pestle. Prepare solution by dissolving 1.5gms of crushed tablets in 1 litre warm (40-80oC) water. Note: Whirlfloc T does not fully dissolve, this method is sufficient to extract the active components into solution.
- 2) Dose 300 ml clear glass bottles: 0, 2, 3, 4, 5, 6, 7, 8, 10, 12, 16, 20 mls.  
(1 ml per 300 ml = 5 mg/litre).
- 3) Draw wort near to the end of kettle boil period.
- 4) Immediately add 300 mls wort to each of the predosed bottles.
- 5) Allow to stand for 30 minutes.
- 6) Observe clarity of wort and compactness of sediment throughout the range of treatment rates.
- 7) Cool down either by leaving overnight, or immediately in cold water.
- 9) Allow the cold wort to clarify.
- 10) Observe wort clarity and sediment compaction/volume.

#### INTERPRETATION:

Optimum treatment is achieved when the resulting wort is clear with compact cold break sediment. Typical treatment rates are 25 - 50 mg/litre. However if the wort pH is found to be low (less than pH 5.0 )dose rates of up to 120 mg/litre have been found necessary.

#### APPLICATION:

Whirlfloc T tablets are added directly into the kettle, ideally 10 minutes before the end of the boiling period. It is useful to routinely collect a small sample of each treated wort after cooling and check/record clarity. This enables the effect of changes in raw materials e.g. malt, to be monitored.

Kerry Code	20267876
Spec Version:	001
Spec Status:	Commercialised Kerry Approved

Issue date:	06/11/2017
Revision Date:	13/12/2017

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### KEY PARAMETERS

Test	Min	Max	Units
Fining efficiency	Pass		

### MICROBIOLOGICAL DATA

Total Viable Count	<5000 cfu/g
Enterobacteriaceae	<100 cfu/g
Yeasts & Moulds	<100 cfu/g
E. coli	Absent/25 g
Salmonella	Absent/25 g



<b>ALLERGEN DATA</b>	
<b>Allergen</b>	<b>Present Yes/No</b>
Beef and products thereof	No
Carrot and products thereof	No
Celery and products thereof	No
Cereals containing gluten(1)	No
Chicken meat and products thereof	No
Cocoa and products thereof	No
Coriander and products thereof	No
Corn/maize and products thereof	No
Crustaceans and products thereof	No
Egg and products thereof	No
Fish and products thereof (3)	No
Glutamate and products thereof	No
Milk and products thereof (including lactose)	No
Mustard and products thereof	No
Nuts (other than peanuts) and products thereof(2)	No
Molluscs and products thereof	No
Legumes and products thereof	No
Lupin and products thereof	No
Peanuts and products thereof	No
Pork and products thereof	No
Sesame Seeds and products thereof	No
Soybeans and products thereof	No
Sulphur Dioxide/Sulphites > 10ppm	No
Wheat and products thereof(4)	No
Definitions conform with EU Regulation (EU) No 1169/2011 as amended, US Food Allergen Labelling and Consumer Protection Act (FALCP) and ALBA-list. (1) i.e. wheat, rye, barley, oats, spelt, kamut or their hybridised strain (2) Nut allergens: Almond <i>Prunus dulcis</i> (Rosaceae) Beech nut <i>Fagus</i> spp. (Fagaceae), Brazil nut <i>Bertholletia excelsa</i> (Lecythidaceae), Butternut <i>Juglans cinerea</i> (Juglandaceae), Cashew <i>Anacardium occidentale</i> (Anacardiaceae), Chestnut (Chinese, American, European, Seguin) <i>Castanea</i> spp.(Fagaceae), Chinquapin <i>Castanea pumila</i> (Fagaceae), Coconut <i>Cocos nucifera</i> L. (Arecaceae (alt. Palmae)), Fibert/Hazelnut <i>Corylus</i> spp. (Betulaceae), Ginko nut <i>Ginkgo biloba</i> L.(Ginkgoaceae), Hickory nut <i>Carya</i> spp.(Juglandaceae), Lichee nut <i>Litchi chinensis</i> Sonn. (Sapindaceae), Macadamia nut/Bush nut <i>Macadamia</i> spp.(Proteaceae), Pecan <i>Carya illinoiesis</i> (Juglandaceae), Pine nut/Pinon nut <i>Pinus</i> spp. (Pineaceae), Pili nut <i>Canarium ovatum</i> (Burseraceae), Pistachio <i>Pistacia vera</i> L. (Anacardiaceae), Sheanut <i>Vitellaria paradoxa</i> (Sapotaceae), Walnut (English, Persian, Black, Japanase, California), Heartnut, <i>Juglans</i> spp.(Juglandaceae) (3) Isinglass is used as a fining agent in beer and wine. It is exempt from declaration, as defined in Annex II of Regulation (EU) No 1169/2011 as amended. (4) i.e. common wheat, durum wheat, club wheat, spelt, semolina, Einkorn,emmer, kamut and triticale	



<b>SUITABILITY DATA</b>	<b>Yes = Suitable, No = Unsuitable</b>	<b>Comment/Certification Status</b>
Vegetarian (Ova-lacto)	No	
Vegan	No	
	<b>Certified / Not Certified</b>	<b>Comment</b>
Halal	Not Certified	Suitable
Kosher	Not Certified	Suitable

<b>NUTRITION INFORMATION</b>		
<b>Nutrient</b>	<b>Typical Value</b>	<b>Unit</b>
Energy	1,577	kJ/100 g
Energy	377	kCal/100 g
Total Carbohydrates	40	g/100 g
Total Fat	1	g/100 g
Protein	1	g/100 g
Moisture	5	g/100 g
Ash	53	g/100 g
<b>Data Source</b>		
Values quoted are typical and should be used for guidance purposes only.		

<b>PROCESS SUMMARY</b>
Kerry has implemented and maintains food hygiene standards and HACCP Plans in line with the requirements of food legislation. The Carrigaline, Co Cork site is certified against the requirements of FSSC22000 and ISO14001.

<b>RECOMMENDED SHELF-LIFE &amp; STORAGE</b>	
Transport & Storage Conditions:	Product must be maintained in cool, dry conditions below 20°C.
Shelf life (original package):	730 days (24 months)

<b>PACKAGING</b>	
Pack Size (Net)	Kg
Pack Type Inner	MDPE Polyliner
Pack Type Outer	Cardboard Box

<b>HEALTH &amp; SAFETY DATA</b>
As per Safety Data Sheet (SDS). SDS available on request.



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### **LEGISLATION & WARRANTY STATEMENT**

We warrant that the product is manufactured in accordance with the specification and is manufactured and packaged in compliance with all EU food and food safety legislation applicable to products of this nature at time of manufacture and sale by us.

We make no further warranty in relation to the product or as to the suitability of the product for any specific purpose or application. The user should satisfy itself as to the suitability of the product as an ingredient in a specific application or for any use whatsoever. The information supplied in this specification sheet is in accordance with our product formulation, is also based on manufacturing plant data and on data provided by our raw material suppliers and is accurate to the best of our knowledge at the date of issue of this specification. Local national regulations should also be consulted by user in relation any specific application and in relation to appropriate ingredient declarations as legislation may vary from country to country.

### **CONFIDENTIALITY**

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