



Head Office: The Old Grammar School, 3-7 Market Square, Amersham, Bucks. HP7 0DF  
Tel: (44) 1494 434600 Email: [foodnettechnical@foodnet.ltd.uk](mailto:foodnettechnical@foodnet.ltd.uk)

Technical Specification		
<b>Product:</b> Straight Cut Water Chestnuts	<b>Last Update:</b> 31/01/2020	<b>Product Code:</b> WAT005

**PACK SIZE** 1 x 10kg;

**ORIGIN:** China

**GENERAL** The product shall be prepared from fresh sound raw material that is free from all toxic residues and taints and shall comply with all current UK/EU Food Legislation. The product is intended to be used as ingredient that is further processed and heat-treated before final consumption.

**INGREDIENTS** Water Chestnuts 100% Declare as: Water Chestnuts  
(*E. tuberosa*)

**PROCESSING** The water chestnuts are harvested, chopped, blanched, sieved, inspected, and frozen and filled into bulk palletainers. The palletainers are then labelled and transferred to the cold store, where they are stored at -23°C until required for packing.

**PACKING** During packing, the water chestnuts are inspected before weighing and filling into blue poly lined cartons. The cartons are Best Before and Production date coded, checkweighed and metal detected, palletised and stretch wrapped before being returned to store at -18°C to await despatch to the UK at -18°C.

**QUALITY CONTROL** Checks are carried out on the following: -

Processing: -	Raw material Final Product Temperature
Packing: -	Metal detection Check weighing Final product physical defect levels Organolepsis Case quantity Case sealing Case coding and print quality

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## **DEFECT TOLERANCES**

### **Per 500g (Frozen)**

Clumps (> 3 pieces)	10% w/w
Foreign Matter	Nil
E.V.M.	1 piece
Major Blemish >6mm	5% w/w
Minor Blemish <6mm	10% w/w
Spot	5% w/w
Adhering Skin	3% w/w
Broken Pieces	5% w/w

### **Out of Size:**

Thickness >6mm	10% w/w
Thickness <4mm	5% w/w
Width (<15mm; >25mm)	10%w/w
Length ( > 40mm)	10%w/w

## **DEFINITIONS OF DEFECTS**

### **Foreign Material**

This includes any material not derived from the water chestnut plant or defined as EVM. Examples of Foreign Matter include insects, pieces of insects, wood, glass, stones, metal, toxic berries, seed or flower heads, snails, slugs or any other material which will render the product unacceptable.

### **EVM**

This includes any harmless vegetable matter other than water chestnut which is derived from the water chestnut plant or harmless vegetable material such as pieces of leaves.

### **Major Blemish**

This includes water chestnut slices that are blemished to the extent that the area affected is greater than 6mm in diameter, either as a single blemish or an aggregate of blemishes on the same slice.

### **Minor Blemish**

This includes water chestnuts slices that are blemished to the extent that the area affected is between 2mm and 6mm in diameter, either as a single blemish or an aggregate of blemishes on the same slices. Blemishes less than 2mm in diameter shall be ignored.

### **Adhering Skin**

Dice which have any water chestnut skin adhering.

### **Spots**

This includes slices with purple spots in the centre of the slice.

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### **Irregular Slices**

This includes slices which are more than 1½ times as long as they are wide.

### **Broken Slices**

This includes slices which are less than half their original size.

*The below minimum numbers of samples should be inspected and average result to be out-of-spec.*

Quantity Delivered (Kg)	Minimum samples to be taken (1Kg of product per each item)		
	10Kg Boxes	20Kg Bags	25Kg Bags
<1000	4	2	2
<2000	8	5	4
<5000	10	7	5
<10000	15	10	8
≤27000	20	15	12

### **ORGANOLEPSIS** (Carried out on a thawed sample.)

#### **COLOUR**

Regular white colour, typical of water chestnuts.

#### **FLAVOUR**

Typical of water chestnuts with no off flavours.

#### **TEXTURE**

Shal be crisp without woodiness.



Average sample

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#### **MICROBIOLOGICAL**

Organism	Target	Maximum
<i>TVC @ 30°C</i>	$5 \times 10^5$	$1 \times 10^6$
<i>Total Coliforms</i>	$5 \times 10^2$	$3 \times 10^3$
<i>E. coli</i>	Nil	$1 \times 10^2$
<i>Listeria mono</i>	Absent in 25g	$1 \times 10^2$
<i>Salmonella</i>	Absent in 25g	Absent in 25g

**ANALYTICAL** Product shall be blanched to give a negative peroxidase reaction (guaiacol test) between 50 and 60 seconds.

**WEIGHT CONTROL** The product shall be packed to minimum weight.

**METAL DETECTION** All cartons shall be passed through a metal detector. The system shall be tested at least every 2 hours using ferrous, non-ferrous and stainless-steel test pieces.

**BEST BEFORE DATE** The product shall be twenty-four months following the month of packing. Minimum BB date on delivery: 6 months.

**TRACEABILITY INFO** Production date or Lot number printed on the label as well as customer order number and/or delivery date.

**STORAGE CONDITIONS** Keep frozen at - 18°C at all times.

**CARTON LINERS** Blue food grade polythene liner of a minimum thickness of 30µm.

**CARTONS** Corrugated fibreboard of glued construction, no metal staples to be used. Shall be sealed using blue adhesive tape.

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## **NUTRITIONAL INFORMATION**

This data conforms to the requirements of EC Council Directive 90/496/EEC

100g of uncooked water chestnuts typically contains: -

Parameter	Value / 100g	Methodology
Energy - kcal	46	McCance & Widdowson 6 <sup>th</sup> Edition
Energy - kJ	198	McCance & Widdowson 6 <sup>th</sup> Edition
Moisture	79.8g	McCance & Widdowson 6 <sup>th</sup> Edition
Carbohydrate	10.4g	McCance & Widdowson 6 <sup>th</sup> Edition
- as sugars	4.8g	McCance & Widdowson 6 <sup>th</sup> Edition
- as polyols	0.0g	McCance & Widdowson 6 <sup>th</sup> Edition
- as starch	5.6g	McCance & Widdowson 6 <sup>th</sup> Edition
Fat	0.2g	McCance & Widdowson 6 <sup>th</sup> Edition
- as saturates	Trace	McCance & Widdowson 6 <sup>th</sup> Edition
- as mono unsaturates	Trace	McCance & Widdowson 6 <sup>th</sup> Edition
- as poly unsaturates	0.1g	McCance & Widdowson 6 <sup>th</sup> Edition
Protein	1.4g	McCance & Widdowson 6 <sup>th</sup> Edition
Fibre	3.2g	McCance & Widdowson 6 <sup>th</sup> Edition
Sodium	12mg	McCance & Widdowson 6 <sup>th</sup> Edition
Vitamin A	0.0mg	McCance & Widdowson 6 <sup>th</sup> Edition
Vitamin B <sub>6</sub>	0.1µg	McCance & Widdowson 6 <sup>th</sup> Edition
Vitamin B <sub>12</sub>	0.0mg	McCance & Widdowson 6 <sup>th</sup> Edition
Vitamin C	5mg	McCance & Widdowson 6 <sup>th</sup> Edition
Vitamin D	0.0µg	McCance & Widdowson 6 <sup>th</sup> Edition
Vitamin E	0.0mg	McCance & Widdowson 6 <sup>th</sup> Edition
Thiamin	0.09mg	McCance & Widdowson 6 <sup>th</sup> Edition
Riboflavin	0.11mg	McCance & Widdowson 6 <sup>th</sup> Edition
Niacin	1.0mg	McCance & Widdowson 6 <sup>th</sup> Edition
Folic Acid	0.0µg	McCance & Widdowson 6 <sup>th</sup> Edition
Biotin	0.0µg	McCance & Widdowson 6 <sup>th</sup> Edition
Pantothenic Acid	0.0mg	McCance & Widdowson 6 <sup>th</sup> Edition
Calcium	8mg	McCance & Widdowson 6 <sup>th</sup> Edition
Phosphorus	70mg	McCance & Widdowson 6 <sup>th</sup> Edition
Iron	0.7mg	McCance & Widdowson 6 <sup>th</sup> Edition
Magnesium	14mg	McCance & Widdowson 6 <sup>th</sup> Edition
Zinc	0.0mg	McCance & Widdowson 6 <sup>th</sup> Edition
Iodine	0.0µg	McCance & Widdowson 6 <sup>th</sup> Edition
Potassium	530mg	McCance & Widdowson 6 <sup>th</sup> Edition

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### **GMO DECLARATION**

Does the product, or any of its ingredients contain any genetically modified material (whether viable or not)? YES / NO

Is the product or any of its ingredients not substantially equivalent as a consequence of the use of genetic modification? YES / NO


Is the product or any of its ingredients produced from, but not containing any genetically modified material? YES / NO

Have genetically modified organisms been used as processing aids or additives used in connection with the production of the food or any of its ingredients? YES / NO

Have genetically modified organisms been used to produce processing aids or additives but where such genetically modified organisms are not present in the processing aid as used in connection with the production of the food or any of its ingredients? YES / NO

Name: Gianluca Oberto

Job Title: Technical Manager

Signature: 


Date: 31<sup>st</sup> January 2020

### **IRRADIATION POLICY**

I confirm that the product supplied by Foodnet Limited under this specification has not undergone any irradiation treatment or process. I further confirm that no ingredient or processing aid used in conjunction with this product has undergone irradiation treatment.

Name: Gianluca Oberto

Job Title: Technical Manager

Signature: 

Date: 31<sup>st</sup> January 2020

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## **FOOD INTOLERANCE**

<b>Food Intolerance Data</b>					
Does the material supplied contain any of the following? (NO) Absent, (YES) Present					
<b>Allergen</b>		<b>NO / YES</b>	<b>Reason for presence if YES</b>		
Milk & Milk Derivatives		NO			
Egg & Egg Derivatives		NO			
Animal Products (*)		NO			
Fish/Shellfish/Crustaceans/Molluscs		NO			
Cereals (**)		NO			
Gluten		NO			
Yeast/Yeast Extract		NO			
Soya/Soya Derivatives		NO			
Fruit & Fruit Derivatives		NO			
Beef & Beef Products		NO			
Pork & Pork Products		NO			
Lamb & Lamb Products		NO			
Poultry & Poultry Products		NO			
Legumes		NO			
Peanuts		NO			
Sulphite >10ppm		NO			
MSG		NO			
BHA / BHT		NO			
Benzoates		NO			
Glutamates		NO			
Azo & Coal Tar Dyes		NO			
Added Colour		NO			
Added Flavour		NO			
Preservatives		NO			
Antioxidants		NO			
Added Salt		NO			
Nuts/Nut Oils		NO			
Caffeine		NO			
Sesame Products		NO			
Garlic		NO			
Poppy Seeds		NO			
Mustard		NO			
Celery/Celery		NO			
Lupins		NO			
*Including any product derived from slaughtered animals, e.g. gelatine, rennet					
**Including wheat, corn, barley, rye, oats, etc.					
<b><u>Please be aware the manufacturing sites we supply this item from may handle allergens in production. Procedures are in place to prevent cross-contamination.</u></b>					
<b>Is this product Suitable for:</b>					
<b>Vegans</b>	Yes (Not certified)	<b>Vegetarians</b>	Yes	<b>Organic</b>	No
<b>Halal</b>	Yes (Not certified)	<b>Kosher</b>	Yes (Not certified)		

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### **FOOD ADDITIVES**

E. Number	Name	In Which Ingredient	Function in Ingredient	Function in Final Product	% In Final Product
None					

### **COSHH Data**

Treat as you would any frozen material i.e. if engaged in prolonged handling of the vegetables wear gloves.

Care should be used when lifting full cases of vegetables.

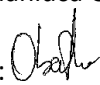
There are no other perceived COSHH implications regarding the use of frozen vegetables.

THE CONTENTS OF THIS SPECIFICATION ARE CONFIDENTIAL TO FOODNET LTD AND THE CUSTOMER, AND MAY NOT BE DISCLOSED TO ANY OTHER PARTY.

Signed on behalf of Foodnet Ltd:

Name: Gianluca Oberto

Job Title: Technical Manager

Signature: 

Date: 31<sup>st</sup> January 2020

Signed on behalf of the Customer:

Name:

Job Title:

Signature:

Date:

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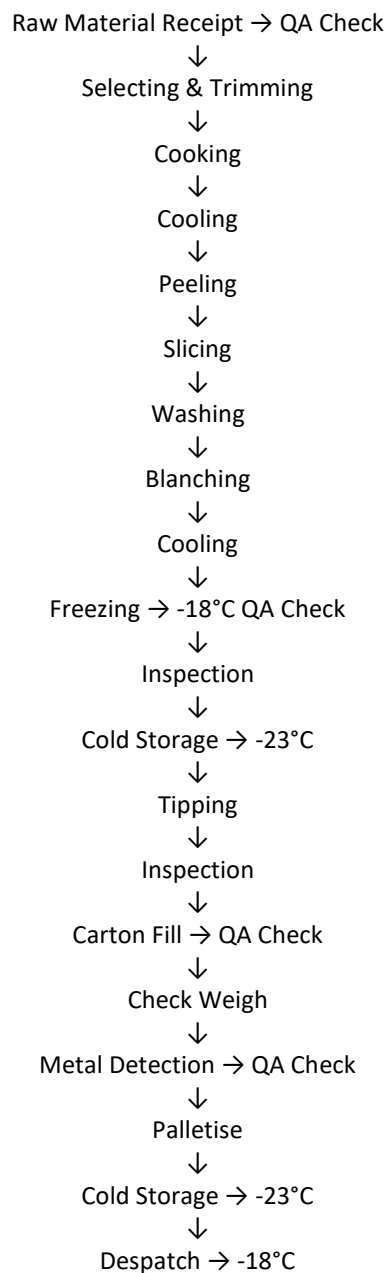
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## **PROCESS INFORMATION**

### **PROCESS FLOW CHART\***

\*Note: this is a generic flow chart which does not refer to any specific production site.

#### **SLICED WATER CHESTNUTS**



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### Issues & Amendments

Issue N°	Amend. N°	Date	Amendments	Compiled by
1	1	01/02/2016	New entry	G. Oberto
2	1	01/05/2017	Defect tolerances – minimum ref samples; Reviewed BB and Traceability info. Added Storage Conditions. Reviewed Food Intolerance table, Flow Chart and Amendment table.	G. Oberto
3	1	31/01/2020	3 Year update – general revision	G. Oberto

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