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Product Specification

Horseradish Chopped 1-10mm

Date: 22nd February 2010

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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. The final product shall comply with all current U.K. and E.C. Food Legislation.

INGREDIENTS Horseradish 100% Declare as: Horseradish
(*Armoracia rusticana*, syn. *Cochlearia armoracia*)

PROCESSING The horseradish roots are delivered and held in chill store at 2°C until required for processing. During processing the roots are inspected, washed, peeled, chopped, washed, scalded, cooled in chlorinated water, inspected and frozen to -18°C or below) and stored in bulk at -23°C or below.

PACKING During packing the chopped horseradish is inspected before weighing and filling into blue poly lined cartons. The cartons are Best Before and Production date coded, check weighed, metal detected, palletised and stretch-wrapped before being returned to store at -23°C to await despatch to the UK at -18°C.

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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

DEFECT TOLERANCES Product shall be checked at least hourly against the following tolerances for defects: -

Per 1000g

Foreign Material	Nil
EVM	0.1% w/w
Attached skin fragments	1
Discoloured areas >1 sq.cm.	3
Discoloured areas <1 sq. cm.	5
Oversize (>15mm in any dimension)	10% w/w

DEFINITIONS OF DEFECTS

Foreign Material

This includes any material not derived from the horseradish plant or defined as EVM, such as insects, pieces of insects, wood, glass, stones, metal, sand, grit, plastic or any other material which will render the product unacceptable.

Extraneous Vegetable Matter (EVM)

Vegetable material derived from the horseradish plant other than the horseradish flesh e.g. pieces of leaf etc but does not include skin from the root. Vegetable material not from the horseradish plant will be counted as Foreign material.

Attached Skin Fragments

This includes pieces of horseradish skin which is adhering to the horseradish pieces.

Discoloured areas.

These are portions caused by bruising of the horseradish during harvest and are brown or buff. See table above for size definitions and tolerances.

Under / Oversize

See table above for size definitions and tolerances.

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ORGANOLEPSIS**COLOUR** Typical creamy white.**FLAVOUR** Characteristic horseradish flavour.**TEXTURE** Fairly uniform, firm with slight fibrousness.

Average Sample

MICROBIOLOGICAL

Organism	Target	Maximum
T V C @ 30°C	1×10^4	1×10^5
Total Coliforms	1×10^2	2×10^2
E. coli	Nil	1×10^1
Staph aureus	Nil	2×10^1
Salmonella	Absent in 25g	Absent in 25g
Listeria sp.	Absent in 25g	1×10^2

ANALYTICAL

N/A – unblanched material

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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 hourly using 3.5mm ferrous and 3.5mm non-ferrous and 4.5mm stainless steel test pieces.

CODING

Best Before End shall be twenty four months following the month of packing e.g. if packed 1st May 2010 then BEST BEFORE END MAY 2012 or BEST BEFORE 01/05/2012.

Production / Traceability Code Four figure International date code (Year number, Day number) plus factory identification code and shift code e.g. product packed 1 January 2010 = 0001 or 01/01/2010.

CARTON LINERS

Dark blue food grade polythene liner of a **minimum** thickness of 45µm.

CARTONS

Corrugated fibreboard of glued construction, no metal staples to be used. Shall be sealed using dark 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 horseradish typically contains: -

Parameter	Value / 100g	Methodology
Energy - kcal	59	McCance & Widdowson 5 th Edition
Energy - kJ	253	McCance & Widdowson 5 th Edition
Moisture	74.7g	McCance & Widdowson 5 th Edition
Carbohydrate	11.0g	McCance & Widdowson 5 th Edition
- as sugars	7.3g	McCance & Widdowson 5 th Edition
- as polyols	0.0g	McCance & Widdowson 5 th Edition
- as starch	3.7g	McCance & Widdowson 5 th Edition
Fat	Trace	McCance & Widdowson 5 th Edition
- as saturates	0.0g	McCance & Widdowson 5 th Edition
- as mono unsaturates	0.0g	McCance & Widdowson 5 th Edition
- as poly unsaturates	Trace	McCance & Widdowson 5 th Edition
Protein	4.5g	McCance & Widdowson 5 th Edition
Fibre	8.3g	McCance & Widdowson 5 th Edition
Sodium	8mg	McCance & Widdowson 5 th Edition
Cholesterol	0.0g	McCance & Widdowson 5 th Edition
Vitamin A	0.0µg	McCance & Widdowson 5 th Edition
Vitamin B6	0.15mg	McCance & Widdowson 5 th Edition
Vitamin B12	0.0µg	McCance & Widdowson 5 th Edition
Vitamin C	120mg	McCance & Widdowson 5 th Edition
Vitamin D	0.0µg	McCance & Widdowson 5 th Edition
Vitamin E	0.0mg	McCance & Widdowson 5 th Edition
Thiamin	0.05mg	McCance & Widdowson 5 th Edition
Riboflavin	0.03mg	McCance & Widdowson 5 th Edition
Niacin	0.5mg	McCance & Widdowson 5 th Edition
Folic Acid	0.0µg	McCance & Widdowson 5 th Edition
Biotin	0.0µg	McCance & Widdowson 5 th Edition
Pantothenic Acid	0.0mg	McCance & Widdowson 5 th Edition
Calcium	120mg	McCance & Widdowson 5 th Edition
Phosphorus	70mg	McCance & Widdowson 5 th Edition
Iron	2.0mg	McCance & Widdowson 5 th Edition
Magnesium	36mg	McCance & Widdowson 5 th Edition
Zinc	0.0mg	McCance & Widdowson 5 th Edition
Iodine	-	McCance & Widdowson 5 th Edition
Potassium	580mg	McCance & Widdowson 5 th 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: Alan Gosling Job Title: Technical Consultant

Signature:  Date: 22nd February 2010

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: Alan Gosling Job Title: Technical Consultant

Signature:  Date: 22nd February 2010

Where any answer is YES, see details below.

Product or Material	Details of Genetic Modification

I confirm I have made any necessary enquiries and obtained relevant written assurances from suppliers to verify the accuracy of the details provided above. I confirm the above data supplied is correct and can be used without reservation to advise customers.

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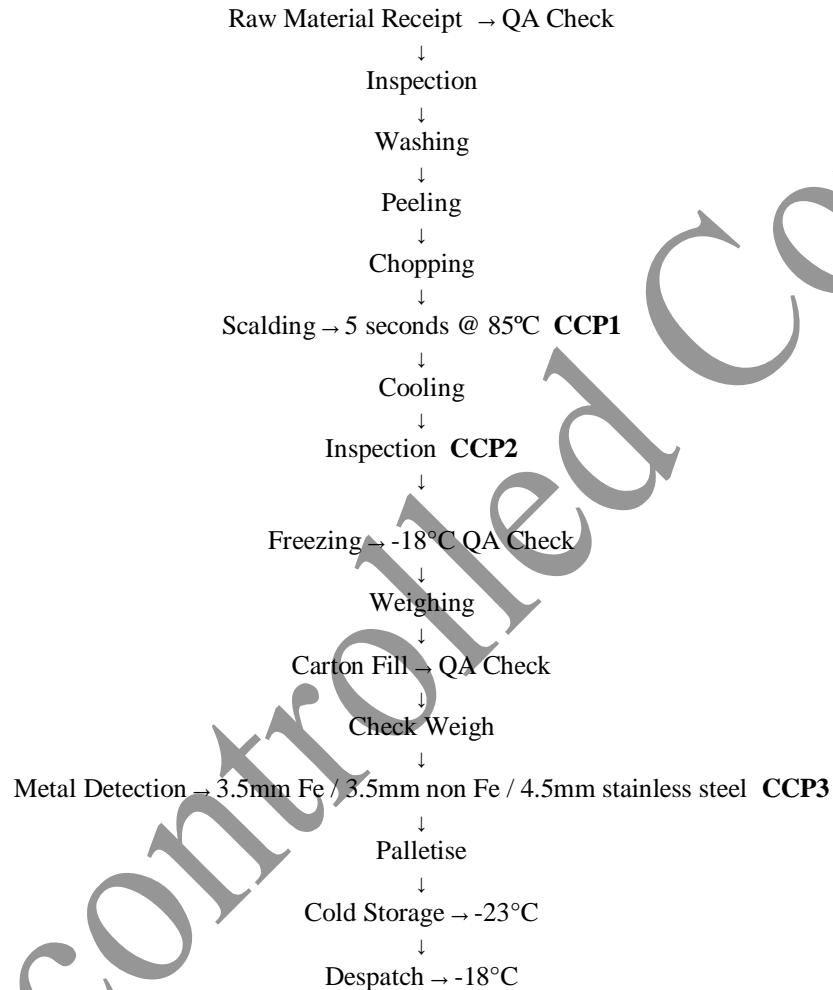
FOOD INTOLERANCE

Food Intolerance Data		
Does the material supplied contain any of the following? (NO) Absent, (YES) Present		
Allergen	NO / YES	Reason for presence if YES
Milk & Milk Derivatives	NO	
Egg & Egg Derivatives	NO	
Animal Products (*)	NO	
Fish/Shellfish/Crustations/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/Celariac	NO	
Lupins	NO	
*Including any product derived from slaughtered animals, e.g. gelatine, rennet		
**Including wheat, corn, barley, rye, oats, etc.		
Is the material suitable for:		
Vegetarians?	Y / N	
Vegans?	Y / N	
Kosher?	Y / N	
Halal?	Y / N	
Organic?	Y / N	

FOOD ADDITIVES

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

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PROCESS INFORMATION**PROCESS FLOW CHART****CHOPPED HORSERADISH****CRITICAL CONTROL POINTS:**

to include time / temperature / frequency / target and sensitivity of all process steps.

CCP Number	Process Step	Controls in place
CCP1	Effective scalding to minimise microbiological loading. Half hourly checks.	Continuous chart recording of temperature for adequate blanching.
CCP2	Inspection of the product. Continuous control	To remove foreign material via manual inspection.
CCP3	Metal detector efficiency. Hourly checks.	Testing of detector using certified test pieces of 3.5mm Ferrous and non-Ferrous & 4.5mm stainless steel.

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COSHH Data For Frozen Vegetables

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 frozen 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: Alan Gosling Job Title: Technical Consultant
Signature:  Date: 22nd February 2010

Signed on behalf of the Customer:-

Name: Job Title:
Signature: Date:

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