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Product Specification

Cut Leaf Spinach 10-20mm

Date: 15th September 2011

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PACK SIZE 1 x 10kg

ORIGIN: Turkey / China / France / Belgium

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 Spinach 100% Declare as: Spinach
(*Spinacia oleracea*)

PROCESSING Spinach leaves are delivered to the factory, cleaned, inspected, washed, cut, blanched, cooled and frozen (-18°C or below) and stored in bulk pallets at -23°C or below until required for re-packing.

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

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QUALITY CONTROL Checks are carried out on the following: -

Processing: - Raw material
 Final Product
 Peroxidase
 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 500g**

Clumps	2
Foreign Matter	Nil
EVM	2
Yellow Leaves	5
Blemished Leaves	20
Root Pieces	1
Spinach Flowerbuds	3
Stalks	20% w/w
Dry Matter	6.5% Min
Nitrates	<2000 ppm

DEFINITIONS OF DEFECTS**Clumps**

A clump is an agglomeration of leaves welded together that cannot be readily separated without causing damage to the leaves. Clumps shall weigh greater than 30g.

Foreign Material

This includes any material not derived from the spinach plant, or defined as EVM, Examples of foreign matter include insects, pieces of insect, wood, glass, stones, sand, metal, snails, slugs etc. unacceptable.

Extraneous Vegetable Matter (EVM)

This includes any harmless vegetable matter other than spinach leaves that is not derived from the spinach plant.

Yellow Leaves

These are spinach leaves that have a distinct yellow colouration.

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Blemished Leaves

These are leaves, or parts of leaves, that have a brown colouration caused by rain damage, frost or disease.

Root Pieces

These are parts of the root structure of the spinach plant.

Flowerbuds

These are noticeable flowerbuds from the spinach plant measuring greater than 25mm.

Stalks

These are pieces of stalk completely devoid of leaf.

ORGANOLEPSIS (Carried out on a cooked sample.)**COLOUR**

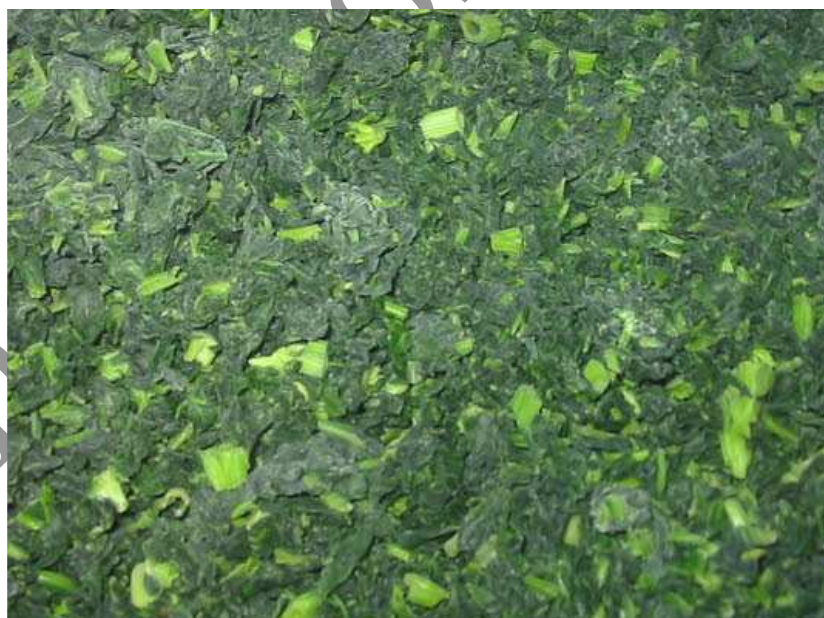
Characteristic green, almost completely uniform throughout the sample.

FLAVOUR

Characteristic spinach flavour, shall be slightly sweet.

TEXTURE

Tender, firm but not hard, with no stringiness.



Average sample

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MICROBIOLOGICAL

Organism	Target	Maximum
T V C @ 30°C	1×10^5	1×10^6
Total Coliforms	1×10^2	1×10^3
E. coli	Nil	1.5×10^1
Staph aureus	2×10^1	1×10^2
Yeasts & Moulds	1×10^3	5×10^3
Salmonella	Absent in 25g	Absent in 25g
Listeria monocytogenes	Absent in 25g	1×10^2

ANALYTICAL

Peroxidase Negative

Nitrates ≤ 2000 ppm**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 & 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 2011 then BEST BEFORE END MAY 2013 or BEST BEFORE 01/05/2013.

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 2011 = 1001 or 01/01/2011

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 spinach typically contains: -

Parameter	Value / 100g	Methodology
Energy - kcal	21	McCance & Widdowson 6th Edition
Energy - kJ	90	McCance & Widdowson 6th Edition
Moisture	91.6g	McCance & Widdowson 6th Edition
Carbohydrate	0.5g	McCance & Widdowson 6th Edition
- as sugars	0.3g	McCance & Widdowson 6th Edition
- as polyols	0.0g	McCance & Widdowson 6th Edition
- as starch	0.2g	McCance & Widdowson 6th Edition
Fat	0.8g	McCance & Widdowson 6th Edition
- as saturates	0.1g	McCance & Widdowson 6th Edition
- as mono unsaturates	0.1g	McCance & Widdowson 6th Edition
- as poly unsaturates	0.5g	McCance & Widdowson 6th Edition
Protein	3.1g	McCance & Widdowson 6th Edition
Fibre	2.1g	McCance & Widdowson 6th Edition
Sodium	16mg	McCance & Widdowson 6th Edition
Vitamin A	1101µg	McCance & Widdowson 6th Edition
Vitamin B6	0.9mg	McCance & Widdowson 6th Edition
Vitamin B12	0µg	McCance & Widdowson 6th Edition
Vitamin C	6mg	McCance & Widdowson 6th Edition
Vitamin D	0.0µg	McCance & Widdowson 6th Edition
Vitamin E	1.71mg	McCance & Widdowson 6th Edition
Thiamin	0.06mg	McCance & Widdowson 6th Edition
Riboflavin	0.05mg	McCance & Widdowson 6th Edition
Niacin	0.9mg	McCance & Widdowson 6th Edition
Folic Acid	52µg	McCance & Widdowson 6th Edition
Biotin	0.1µg	McCance & Widdowson 6th Edition
Pantothenic Acid	0.21mg	McCance & Widdowson 6th Edition
Calcium	150mg	McCance & Widdowson 6th Edition
Phosphorus	48mg	McCance & Widdowson 6th Edition
Iron	1.7mg	McCance & Widdowson 6th Edition
Magnesium	31mg	McCance & Widdowson 6th Edition
Zinc	0.6mg	McCance & Widdowson 6th Edition
Iodine	2µg	McCance & Widdowson 6th Edition
Potassium	340mg	McCance & Widdowson 6th 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: 15th September 2011

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: 15th September 2011

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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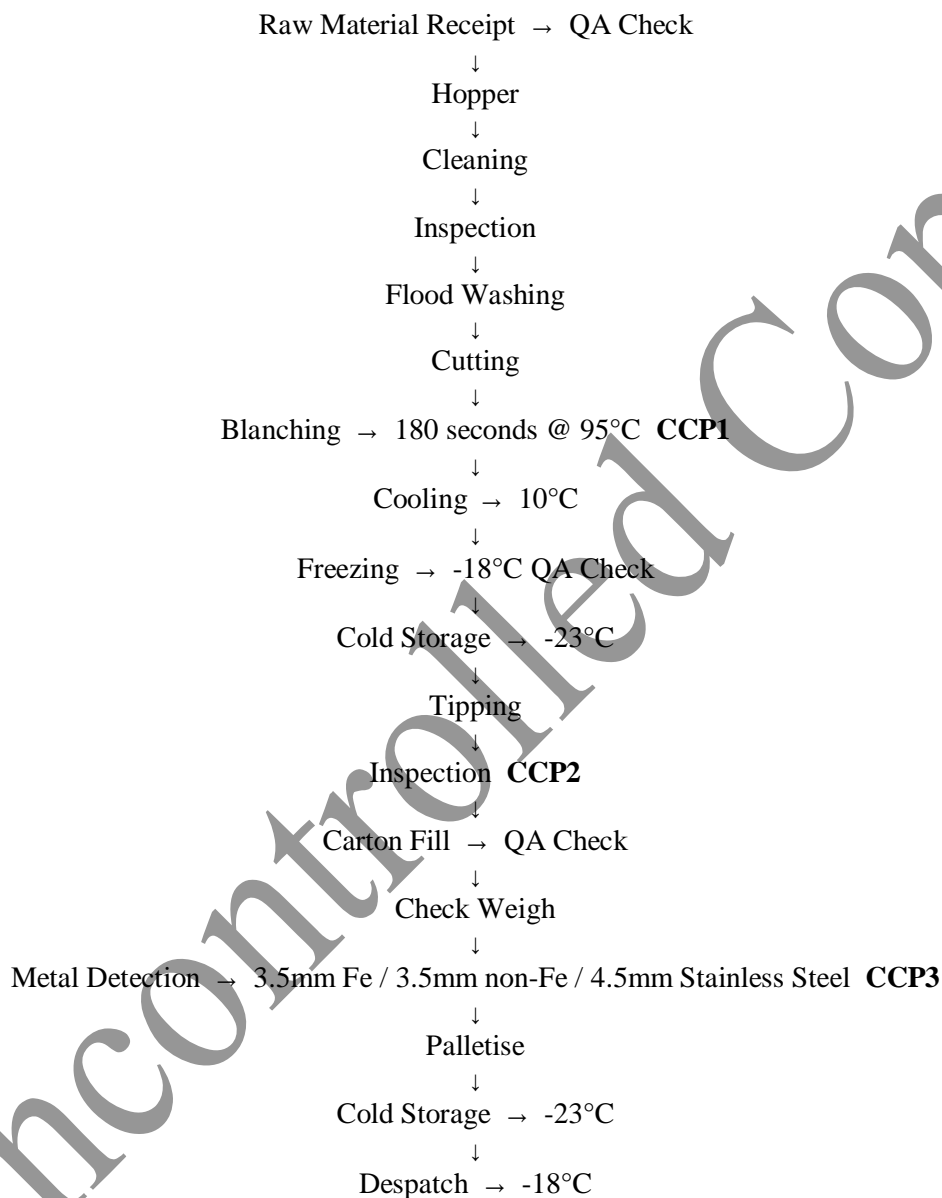
FOOD INTOLERANCE

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/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/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****CUT LEAF SPINACH 10-20mm****CRITICAL CONTROL POINTS:**

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

CCP Number	Process Step	Controls in place
CCP1	Effective blanching to minimise microbiological loading. Half hourly checks.	Continuous chart recoding of temperature and guaiacol test 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: 15th September 2011

Signed on behalf of the Customer:-

Name:

Job Title:

Signature:

Date:

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