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Printed Date 09-Jun-2016

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Cargill B.V.
 Cargill Cocoa & Chocolate
 Evert van de Beekstraat 378, 1118 CZ Schiphol
 P.O. Box 75840, 1118 ZZ Schiphol (The Netherlands)

Tel +31 (0)20 500 6000
 Fax +31 (0)20 500 6985
 cocoa_chocolate@cargill.com
 www.cargillcocoachocolate.com

Cargill Cocoa & Chocolate is a trade name of Cargill B.V. Registered in Amsterdam with number 33119622



General Information

| | | Comment |
|--------------------------|---------------------------|----------------|
| Product Description | Fat-reduced cocoa powder | DIR.2000/36/EC |
| Process | Alkalised | |
| Manufacturer Information | Cargill Cocoa & Chocolate | |
| Country of Origin | The Netherlands | |

Process Description Cocoa Powder

Cocoa powder is obtained by hydraulic pressing of cocoa mass whereby cocoa butter is separated from the cocoa cake, after which the cocoa cake is pulverized into a fine free flowing cocoa powder. Cocoa mass is produced from cocoa beans, which are deshelled and broken into cocoa nibs (the kernels). These kernels are alkalized (except for the natural cocoa powder), roasted and ground into a fine cocoa mass.

Sensory Description

| | | Comment |
|------------|---------------------------|---------|
| Appearance | Fine powder, free flowing | |
| Colour | Dark strong red | |
| Taste | Typical, no off flavours | |
| Odour | Typical, no off flavours | |

Chemical and Physical Parameters

| | | Min | AVG | Max | UOM | Method | Comment |
|----------------------|------------------------|-----|-----|-----|----------|----------------|---------|
| Cocoa Butter Content | - | 10 | | 12 | % | ICA 37, 1990** | |
| Moisture Content | - | | | 4.5 | % | ICA 1, 1950** | |
| pH | in 10% solution | 7.3 | 7.5 | 7.7 | pH units | ICA 15, 1972* | |
| Ash Content | on Fat Free Dry Matter | | | 13 | % | ICA 16, 1973** | |

| | | Min | AVG | Max | UOM | Method | Comment |
|----------------|---------------------|------|-----|------|-----|----------------|---------|
| Fineness, 75µm | Wet Sieve Residue | 99.8 | | | % | ICA 11, 1970** | |
| Shell Content | on Alkali Free Nibs | | | 1.75 | % | AOAC 970.23 | |

Microbiological Analysis

| | | Min | AVG | Max | UOM | Method | Comment |
|---------------------------|---|-----|-----|------|-------|---------------------|----------------------------|
| Total Aerobic Plate Count | - | | | 5000 | CFU/g | ICA 39, 1990 no. 2* | |
| Yeasts | - | | | 10 | CFU/g | ICA 39, 1990 no. 7* | |
| Moulds | - | | | 50 | CFU/g | ICA 39, 1990 no. 7* | |
| Mesophilic Spores | - | | | 5000 | CFU/g | ICA 39, 1990 no. 3* | 10min. 80°C; 3days at 30°C |

| | | Value | UOM | Method | Comment |
|--------------------|---|----------|-----|-----------------------|---------|
| Enterobacteriaceae | - | Absent | | Internal Method BAC04 | in 1g |
| E-Coli | - | Absent | | Internal Method BAC04 | in 1g |
| Salmonella | - | Absent | | ICA 39, 1990 no. 8* | in 750g |
| Lipase Activity | - | Negative | | | |
| Protease Activity | - | Negative | | | |

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Supplementary to the Method

General: methods may differ at affiliates

* : equivalent to referred method

** : internal method based on referred method

Nutritional Values

| Nutrient | Value | UOM |
|-------------------------------|-------|-----------|
| kJ | 1250 | kJ/100g |
| kCal | 300 | kCal/100g |
| Fat | 10.5 | % |
| Saturated Fat | 6.4 | % |
| Mono Unsaturated Fat | 3.7 | % |
| Poly Unsaturated Fat | 0.4 | % |
| Total Carbohydrates * | 10.1 | % |
| Sugars | 0.7 | % |
| Starch | 9.4 | % |
| Insoluble Dietary Fiber | 26.9 | % |
| Soluble Dietary Fiber | 4.5 | % |
| Protein | 22.5 | % |
| Salt ** (= 2,5x Na) | 0.08 | % |
| Organic Acids | 3.5 | % |
| Theobromine | 2.3 | % |
| Caffeine | 0.2 | % |
| Moisture | 3.5 | % |
| Ash | 11.5 | % |
| K (Potassium) | 5700 | mg/100g |
| Na (Sodium) | 30 | mg/100g |
| Ca (Calcium) | 160 | mg/100g |
| Mg (Magnesium) | 570 | mg/100g |
| Fe (Iron) | 40 | mg/100g |
| Cu (Copper) | 5 | mg/100g |
| Zn (Zinc) | 8 | mg/100g |
| Cl (Chloride) | 0 | mg/100g |
| P (Phosphorus) | 750 | mg/100g |
| Vitamin A (Retinol) | 0 | mg/100g |
| Vitamin B1 (Thiamin) | 0 | mg/100g |
| Vitamin B2 (Riboflavin) | 0.1 | mg/100g |
| Vitamin B3 (Niacin) | 25.4 | mg/100g |
| Vitamin B5 (Pantothenic Acid) | 2.7 | mg/100g |
| Vitamin B6 (Pyridoxine) | 0.1 | mg/100g |
| Vitamin C (Ascorbic Acid) | 0 | mg/100g |
| Vitamin D (Cholecalciferol) | 0 | mg/100g |
| Vitamin E (Tocopherol) | 2.3 | mg/100g |
| Cholesterol | 0 | mg/100g |

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**Trans Fatty Acids**

Trans Fatty Acids: < 0.5 g/100g

Comments on Nutritional data

The above nutritional values are all indicative data. The values originate from analytical results. The expressed analytical data comprise relevant nutritional components only. Therefore the sum does not equal 100%.

* Total Carbohydrates is the sum of Sugars, Polyols and Starch, as defined in Annex I of Regulation EC N° 1169/2011.

** The salt content is exclusively due to the presence of naturally occurring sodium.

Packaging and Storage Information/Recommendations

| | Description | UOM | Comment |
|-----------------------|-------------|----------|-----------------------------|
| Shelf Life | 36 | month(s) | at below storage conditions |
| Relative Humidity | max 50 | % | - |
| Storage Temperature | 18 - 22 | °C | - |
| Transport Temperature | max 25 | °C | - |

Labeling Information

The product labeling (if applicable) contains following standard information:

Label:

- type
- lot number
- production date
- best before date

Bag / Carton:

- net weight
- name of manufacturer
- country of origin

Explanation product coding

The lot number is made up of eight/nine digits and is composed as follows:

L(L) xx xx x xx L(L) = location code

x(x) YY xx x xx YY = year code

x(x) xx WW x xx WW = week code

x(x) xx xx M xx M = machine/product code

x(x) xx xx x SS SS = production sequence of product/machine in one specific week

Year code

This is a consecutive number, indicating the production year, eg. 08 for 2008.

Week code

This code is the number of the week according to the standard week numbering.

Dietary Information**Suitable for**

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| | Suitable for | Certified | Comment |
|------------|--------------|-----------|------------------------------|
| Kosher | Yes | Yes | Orthodox Union |
| Vegetarian | Yes | No | |
| Halal | Yes | Yes | Halal Food Council of Europe |
| Vegans | Yes | No | |
| Coeliacs | Yes | No | EG 41/2009 |

Allergens

| |
|--|
| A = Used as ingredient in recipe |
| B = Present in cocoa powder production areas |
| C = Unintended presence during processing |

| | A | B | C | Comment |
|------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------------------------------------|
| Beef | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Carrot | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Celery | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Chicken | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Cocoa | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Coriander | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Corn (Maize) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Egg | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Fish | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Glutamate | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Gluten | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Lactose | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Legumes/pulses (other) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Lupin | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Milk protein | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Mollusc | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Mustard | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Nut oils | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Nuts | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Peanut oil | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Peanuts | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Pork | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Rye | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Sesame | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Sesame oil | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Shellfish/Crustaceans | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Soy | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Identity Preserved lecithin (non GMO) |
| Sulfites (E220-228) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Naturally occurring, < 10 ppm |
| Wheat | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

Comments on Allergens

All Allergens should read: including derivatives.

The allergens listed above are in accordance with Regulation 1169/2011 and amendments.

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Comments

- U.O.M. = Unit of Measurement
- N.D. = Not detectable
- If fields are left empty, the parameter is not applicable or no specification can be given.
- All specifications guaranteed at time of loading.
- The microbiological values are not obtained by any means of radiation, nor any sort of gas treatment.
- This specification is confirmed to also cover product of this type delivered under UTZ or Fairtrade mass balance (Cargill B.V. FLO-ID:23857)

CONFIDENTIALITY WARNING

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Approved by:

| |
|--------------------|
| |
| H.J. Kamphuis |
| Laboratory Manager |