**National Starch & Chemical**
*A member of the ICI Group*

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July 8, 2004

Dockets Management Branch
Food and Drug Administration
Room 1061
5630 Fishers Lane
Rockville, MD 20852

Dear Sirs:

Enclosed is the Citizen's Petition submitted by National Starch and Chemical Company ("National Starch"). In addition to the appendix included in the petition there are proprietary consumer research studies that are cited in the petition but have not been included. These studies contain confidential business information that is privileged or confidential pursuant to 21 CFR 20.61(c). However, National Starch will provide this information upon the Agency's request, subject to appropriate procedures to maintain the confidentiality of the proprietary information.

Please contact us if you have any questions or require additional information.

Sincerely,

Scott J. Grare
Senior Regulatory Coordinator
Product Assurance and Regulatory Affairs

SJG/jlm

Enclosures

2004P-0293

CP1

# Carbohydrate Labeling –
# Remove Dietary Fiber from Total Carbohydrates

## A Citizen's Petition

**Submitted by**
**National Starch and Chemical Company**

**July 8, 2004**



2004P-0293

CP1

# Citizen Petition

Dockets Management Branch
Food and Drug Administration
Room 1061
5630 Fishers Lane
Rockville, MD 20852

RE: Carbohydrate Content Label Declaration Petition

Dear Sirs:

The undersigned, National Starch and Chemical Company ("National Starch"), submits this Citizen's Petition under Section 409(b)(1) of the Federal Food, Drug and Cosmetic Act (FD&C Act) and section 10.30 of the Food and Drug Administration procedural regulations. We seek to modify Title 21, Section 101.9(c)(6) of the Code of Federal Regulations, with respect to food labeling for carbohydrates. Specifically, we request that fiber content be excluded from the "Total Carbohydrate" declaration listed on the Nutrition Facts label.

## I. Background

Due, in part, to the popularity of two diets (Atkins and South Beach), carbohydrates have become a greater focus of weight loss plans of Americans. The explosion of consumer interest in the level of carbohydrates in the diet has led food manufacturers to: 1) creatively label their products; 2) modify current products to reduce carbohydrate levels and 3) create entirely new products focusing on a supposed carbohydrate advantage. Given that this area has grown so fast and current FDA labeling rules do not fully address carbohydrate claims, there is considerable confusion in the marketplace.

The term "total carbohydrates" derives from the19th century animal nutrition field where all macro-constituents of the diet contributed calories except for crude fiber. Measuring the indigestible portion of the diet has improved dramatically since the 19th century. It is now recognized that in humans, dietary fiber may only contribute 0-2.5 calories per gram, does not raise blood glucose, does not increase insulin need, and as such dietary fiber is very different from other "available carbohydrates" in the diet. Indeed, the public, and even many scientists, do not understand the term "total carbohydrates. Although predominantly composed of carbohydrates (expect for lignins), dietary fiber should not be classified with digestible carbohydrate. Classification should also be made more consistent with that of other parts of the developed world and therefore, total carbohydrates should be limited to "available" carbohydrates – not including dietary fiber since this component provides different calorie values, different glycemia effects and different effects on insulin needs than other digestible carbohydrates.

## A. Current consumer data on awareness and understanding of carbohydrate claims

While it is hard to obtain accurate data, in a recent nationwide survey of 1,182 people cited in the *New York Times* (Feb. 19, 2004, p. A1) 8.3% of respondents reported they were on low-carbohydrate diets and 20% reported they were not on low-carbohydrate diets but had been cutting back on high-carbohydrate foods. Consumers interested in low-carbohydrate diets or cutting back on high-carbohydrate foods would be likely to avoid consuming all carbohydrates if possible, using the "total carbohydrate" value on the nutrition label as their guide. It is unlikely that such consumers would distinguish between high-starch or high sugar foods and high-fiber

foods, potentially depriving themselves of the recognized health benefits of whole grain and dietary fiber consumption.

Prior to the summer of 2003, about 150 food products had been introduced into the US market positioned as "low carb" foods, [according to Mintel's Global New Products Database (GNPD) database. GNPD is a comprehensive database that monitors worldwide product innovation in consumer packaged goods.], but millions of books had been sold promoting the "low carb" diet and "net" carbohydrates. Since June/July of 2003, more than 600 new foods have been introduced for the "low carb" market, according to GNPD. Thus, consumers are seeing ever more new products promoting various aspects of carbohydrates.

From a variety of sources we know consumers are using the Nutrition Facts panel and are specifically looking for carbohydrate information. Quantitative research, using the Internet in February of this year, involving 460 participants, (the Fourscore & five "Low Carb 'Pulse' Study, 2004") found that nine out of ten consumers look for information on the Nutrition Facts panel on the back of food packages (actual questions and all possible answers provided in **Appendix A**):

- Only 11% of the participants did not read the Nutrition Facts Panel
- 53% specifically look for calories
- 48% look for Total Fat
- 37% look for Total Carbohydrates
- Fewer people looked for dietary fiber (19%).

When asked about what they look for when choosing food items, consumers responded:

- 50% of the participants looking for fat
- 49% of the participants looking for calories
- 37% of participants are looking for total carbohydrates
- 16% look for "net carbs"

- 11% look for "simple carbs"
- 8% look for "net impact carbs"

A segment of consumers are specifically looking for information on food labels, which distinguishes between carbohydrates, that are digested in the small intestine and carbohydrates, that do not directly contribute to blood glucose. In August of 2003, National Starch and HealthFocus International surveyed 500 Primary Grocery Shoppers and found that consumers valued information communicating the impact of carbohydrates on blood glucose. When asked what terms were important regarding carbohydrates that are slowly digested and provide the body with a slow and steady supply of energy, consumers responded:.

- 18% felt that "the amount of net carbohydrates" was important to know
- 20% felt that "they are low impact carbohydrates" was important to know
- 32% felt that "the net energy they provide" was important to know.

When asked about carbohydrates that provide dietary fiber that help your digestive system work well, similar percentages responded: 16% of the participants felt that "the amount of net carbohydrates" was important to know and 17% felt that "they are low impact carbohydrates" was important to know. Information on the "net carbohydrates" or "low impact carbohydrates" mentioned above is delivered outside the Nutrition Facts panel, often on the Principal Display Panel or adjacent to the Nutrition Facts panel.

Thus, two separate and independent consumer surveys within the last year have shown that approximately 35% of American consumers are looking for information identifying the quantity of carbohydrates and that 15-20% of consumers are looking for information about readily available carbohydrates (i.e., digested in the small intestine and directly impact blood glucose

from the foods they eat). Given the consumer interest, the FDA should consider a way to help these interested consumers to find the best credible information on carbohydrates on all food packages (within the Nutrition Facts Panel and/or other information on package labels).

## B. Some current claims being used in the today's marketplace

Table 1 shows some examples of the different approaches food manufacturers are currently using to develop carbohydrate related products and messages. Some (e.g., Gruma's Mission® whole wheat tortillas, Kellogg's "low carb" version of Special K®, Frito Lays' Tostitos® Edge™) list "net carbs" in grams on the food labels as grams of total carbohydrate less grams of dietary fiber. Other manufacturers define "net carbs" in grams on the food labels as grams of total carbohydrate less grams of dietary fiber and less grams of sugar alcohols. Others provide similar information by subtracting grams of sugar alcohols and other carbohydrates from total carbohydrates or subtract sugar alcohols and "certain other carbs." Still others describe terms such as "controlled carbs," "net digestible carbs," etc. The numerous and varied approaches to describe carbohydrates inevitably lead to increased consumer confusion. Acting upon the request of this petition (subtract dietary fiber from currently defined total carbohydrates) will help clarify one of the outstanding carbohydrate communication issues.

## Table 1. Examples of Disparate Approaches by Food Manufacturers Regarding Communication Regarding Carbohydrates

Foods Labeling Net Carbs as Total Carbohydrate Less Dietary Fiber:

**Gruma Corporation** - Mission≤ Low Carb Whole Wheat Tortillas
**Roman Meal** - Carb Aware□ Whole Wheat bread
**Kellogg Company** - Special K≤ for a low carb lifestyle
**PepsiCo** - Frito-Lay Tostitos≤ Edge□
**American Italian Pasta** - Mueller's≤ Reduced Carb Spaghetti and Reduced Carb Elbows
**Snapple Beverage Corp. - Snapple-A-Day™** - "Fit for a Low Carb Lifestyle"
**George Weston Bakeries** – Entenmann's≤ Carb Counting□ Sweet Goods

Foods Labeling Net Carbs as Total Carbohydrate Less Dietary Fiber Less Sugar Alcohols:

**Unilever Bestfoods** - Klondike≤ CarbSmart□ Vanilla Ice Cream Sandwiches
**Kellogg Company** - Keebler≤ Chips Deluxe≤ Carb Sensible Cookies
**Altria** - Nabisco Snackwell's≤ CarbWell□ Cookies

Foods Labeling Otherwise:

**Unilever Bestfoods** - Carb Options Snack Bar - subtracts sugar alcohols and "other carbohydrates"
**Unilever Bestfoods** - Slim-Fast≤ Control Carb Meal Bar – subtracts sugar alcohol and "certain other carbs"
**Dakota Growers Pasta Company** - Dreamfields Healthy Low Carb Living□ pastas – Carb Facts: Total Carbs – Controlled Carbs = Net digestible Carbs

Sources: Mintel International Group Ltd. Global New Products Database and product labels (see Appendix B to see more information on these products)

## C. Current carbohydrate labeling

Under 21 CFR 101.9, "Total carbohydrate content shall be calculated by subtraction of the sum of the crude protein, total fat, moisture, and ash from the total weight of the food." According to this method, all components of a food product not measured as protein, fat, moisture, ash, or fat are considered "carbohydrate," and all carbohydrates are considered equally. Carbohydrates are further divided into "dietary fiber" and "sugars," which are defined by their respective AOAC (Association of Official Analytical Chemists International) measurement methods.

Since the "carbohydrate" category also includes sugar alcohols and starches, the FDA allows separate listing of these two categories on a voluntary basis, with starches falling under the category of "Other Carbohydrate." These "Other Carbohydrates are defined as the difference between "Total Carbohydrates" and dietary fiber, sugars and sugar alcohols.

Nutritionally, carbohydrates can be divided into two categories: those digested in the small intestine (either quickly or more slowly) and those that are not. Sugars and most starches fall in the first category: they are rapidly digested to glucose and absorbed, and subsequently used for short-term energy needs or stored. Fiber, by definition, passes through the small intestine. It provides no short-term energy, but has a variety of physiological effects in and emanating from the large bowel.

Food manufacturers have been attempting to address the nutritional differences in carbohydrates by indicating the "Net carbohydrate" content of their products on the label, but this has only

made the issue more confusing from the consumer's standpoint due to a lack of consistency in approach. While this term has no regulatory definition at this time, it is widely understood to reflect the total carbohydrate content minus the dietary fiber and provides a measure of "digestible" carbohydrate. Other terms used to describe this concept on food labels include "available," "glycemic," "net impact" and "effective" carbohydrate. Some manufacturers also subtract either all or half of the sugar alcohol content to calculate this value under the theory that some or none of the sugar alcohols are digested. Still others subtract glycerin to obtain the "net carbohydrate" value, further adding to the confusion. Notably, the US is one of a handful of countries in which this situation exists: in most other countries, including European Community members and Australia, the dietary fiber content is not included in the "total carbohydrate" value, eliminating the need for a separate "net carbohydrate" definition.

In response to the nation's growing epidemic of obesity, the FDA in late 2003 sponsored the creation of an Obesity Work Group comprised of nutrition experts from business, industry, academia and government. One of the Group's recommendations was to provide clearer nutritional information on product labels, and they specifically suggested that a regulatory definition of the term "net carbohydrate" be developed.

## II. Action Requested and Statement of Grounds

National Starch and Chemical Company proposes to amend the second sentence in 21 CFR 101.9 (c) (6) so as to eliminate dietary fiber from the total carbohydrate declaration on the "Nutrition Facts" panel, as follows:

> Total carbohydrate content shall be calculated by subtraction of the sum of the crude protein, total fat, moisture, ash, *and dietary fiber* from the total weight of the food.

Such a definition would accomplish four major goals: (1) Be consistent with the definition used by the report on Dietary Reference Intakes: Energy, Carbohydrate, Fiber, Fat, Fatty acids, Cholesterol, Protein and Amino Acids, (2) Establish more consistency between carbohydrate and calorie content on the food label, (3) Eliminate confusion resulting from multiple expressions of carbohydrate content on the food label, and 4) Harmonize the carbohydrate portion of US nutrition labeling with that of other countries which do not include dietary fiber in the total carbohydrate value on the nutrition label.

### A. Action consistent with the definition used by the report on Dietary Reference Intakes: Energy, Carbohydrate, Fiber, Fat, Fatty acids, Cholesterol, Protein and Amino Acids

In their report, the Panel on Macronutrients described the "classification of dietary carbohydrates" as follows:

> "Carbohydrates can be subdivided into several categories, based on the number of sugar units present. A *monosaccharide* consists of one sugar unit such as glucose or fructose. A disaccharide consists of two sugar units. Examples of disaccharides are sucrose, lactose and maltose. *Oligosaccharides*, containing 3-10 sugar units, are often breakdown products of *polysaccharides,* which contain more than 10 sugar units. Oligosaccharides such as raffinose and stachyose are found in small amounts in legumes. Examples of polysaccharides include starch and glycogen, which are the storage forms of carbohydrates in plants and animals, respectively. Finally *sugar alcohols*, such as sorbitol and mannitol, are alcohol forms of glucose and fructose, respectively." (page 6.1)

Noticeably absent is a discussion of dietary fiber. While the chapter on carbohydrates does provide further definitions of sugars, starch, glycemic response, glycemic index and glycemic load, there is virtually no mention of dietary fiber as a carbohydrate. In the chapter on Dietary, Functional and Total Fiber, the Panel does describe dietary fiber as:

> "*Dietary Fiber* consists of **nondigestible carbohydrates** and lignin that are intrinsic and intact in plants. *Functional Fiber* consists of isolated, nondigestible carbohydrates that

> have beneficial physiological effects in humans. *Total Fiber* is the sum of *Dietary Fiber* and *Functional Fiber*." (page 7-1, emphasis added)

Additionally, the Panel established the Estimated Average Requirement (EAR) for adults based on glucose utilization in the brain and specifically stated:

> "Therefore, it is provisionally suggested that an EAR for carbohydrate ingestion in the context of the overall food energy sufficiency be based on an amount of **digestible carbohydrate** that would provide the brain (i.e., central nervous system) with an adequate supply of glucose fuel without the requirement for additional glucose production from ingested protein or triacylglycerols (page 6-16, emphasis added)

The EAR for individuals aged one year and above was set at 100 g /day of carbohydrate (again this is "digestible carbohydrate"). The Recommended Dietary Allowance (RDA) for carbohydrate was established as 130 g/d of carbohydrate for all individuals one year and above.

Given that the Panel on Dietary Reference Intakes for Macronutrients, as part of the Food and Nutrition Board, which, in turn, is part of the Institute of Medicine of the National Academy of Sciences, established the EAR and RDA for carbohydrates on digestible carbohydrates, we believe the term used on the food label should more closely represent the value established by this Panel. Subtracting dietary fiber from "total carbohydrates" is consistent with the Panel's report.

### B. Establish more consistency between carbohydrate and calorie content on the food label

In their March 11, 2004 report "Calories Count," the FDA's Obesity Working Group concluded that "Attention to caloric intake is a key element of weight control (the other is calorie expenditure)." Participants in focus groups conducted by the Working Group, however,

indicated specific concerns about carbohydrates as calorie sources ("Calories Count," Appendix G).

At present, the carbohydrate caloric content is assigned a value of 4 kcal/g in 21 CFR 101.9 for nutrition labeling purposes. When calculating the calorie content of a specific food, the insoluble fiber content can be subtracted from the total carbohydrate value since it is assigned a value of 0 kcal/g. Appendix B of the Obesity Working Group report contains the following statements implying that all fibers, not just insoluble fibers, should be assigned a lower caloric value:

> "Carbohydrates (sugars, e.g., glucose, sucrose; and starches) provide energy to cells in the body and glucose is a primary source of energy for the brain. Sugars and starches are broken down to glucose and the energy provided is 4 calories per gram. Other types of carbohydrates such as sugar alcohols (e.g., sorbitol, maltitol) and dietary fiber are not well absorbed by the small intestine and may be fermented by bacteria in the large intestine. Carbohydrates that are fermented in this manner provide a lower energy value per gram."
>
> "Total calorie intake refers to all energy consumed as food and drink. Proteins, carbohydrates, fat, and alcohol provide 4, 4, 9, and 7 calories per gram, respectively. Some calories (e.g., approximately 1.5 calories per gram) are obtained from dietary fiber that undergoes bacterial degradation in the large intestine to produce volatile fatty acids which are then absorbed and used as energy in the body."

Therefore, the calorie contribution from carbohydrates is unlike that from fat and protein since the carbohydrate contribution toward overall calorie content cannot be easily determined because some of the carbohydrate (the insoluble fiber) contributes very few or no calories. For example, two foods with the same carbohydrate, fat and protein content may have different calorie values if they differ in the amount of insoluble fiber. In addition, the subtraction of the insoluble fiber content from the total carbohydrate value for calorie calculation is voluntary, creating an additional source of confusion.

Many nutritional authorities, including the National Academy of Sciences and the World Health Organization, recommend that consumers obtain specific proportions of their calories from protein, fat and carbohydrates [see, Dietary Reference Intakes: Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein and Amino Acids (Macronutrients), Washington DC, National Academies Press, 2002]. Under the current system, consumers may find such calculations difficult because of the lack of standardization for calculating the calorie content of the carbohydrate portion.

A single system under which all digestible carbohydrates are assigned a single caloric value would eliminate some of this uncertainty.

## C. Simplification of Carbohydrate Information on the Product Label

Adoption of a "net" carbohydrate labeling/claim separate from the Total Carbohydrate Content on the Nutrition Facts Panel would lead to another expression of carbohydrate content on the food package. Current regulations already allow labeling of total carbohydrates, sugars, other carbohydrates, sugar alcohols, dietary fiber, insoluble fiber and soluble fiber. Inclusion of an eighth term (e.g., "net") does not seem to be the ideal approach. Currently in the marketplace, food manufacturers are using a wide variety of approaches to communicate "net" or digestible carbohydrates. Examples of product labels with all disparate expressions of carbohydrate were discussed above (Table 1 and **Appendix B**).

The American Diabetes Association recommends the following method for calculating carbohydrate intake (see http://www.diabetes.org/nutrition-and-recipes/nutrition/foodlabel.jsp):

> "If a food has 5 grams or more fiber in a serving, subtract the fiber grams from the total grams of carbohydrate for a more accurate estimate of the carbohydrate content."

The World Health Organization recommends (see World Health Organization, *Carbohydrates in Human Nutrition*, FAO Food and Nutrition Paper 66, Rome: FAO, 1997):

> "for healthy food choices, both the chemical composition and physiologic effects of food carbohydrates be considered, because the chemical nature of the carbohydrates in foods does not completely describe their physiological effects."

The FDA's Obesity Working Group's final report cites research conducted by the International Food Information Council indicating that consumers react most positively to simple nutrition messages ("Calories Count," Appendix H). Excluding dietary fiber from Total Carbohydrate content would eliminate the need for a "Net" carbohydrate label, simplifying the process of comparing the carbohydrate content of specific foods and allowing for more accurate determination of digestible carbohydrates.

### D. Global Harmonization of Labeling

The "*Codex Alimentarius* Guidelines on Nutrition Labeling (1993)" were developed by the World Health Organization to provide a global set of voluntary labeling guidelines to be followed by member states. Under the guidelines, "carbohydrates" declared on the label are limited to "available" carbohydrates, which do not include fiber or sugar alcohols. Specifically, according to the guidelines,

> "The presence of available carbohydrates should be declared on the label as 'carbohydrates'. Where the type of carbohydrate is declared, this declaration should follow immediately the declaration of the total carbohydrate content in the following format:
>
> 'Carbohydrate ... g, of which sugars ... g'.

> This may be followed by the following: 'x' ... g where 'x' represents the specific name of any other carbohydrate constituent."

Most countries throughout the world have adopted this system and do not include fiber under their definition of "total carbohydrate." For example, in Europe, "carbohydrates" as listed on the food label are defined in Council Directive 90/496/EEC, of 24th September 1990, on Nutrition Labelling of Foodstuffs, OJ No. L 276/40, 6.10.90 as "any carbohydrate which is metabolized in man, including polyols" and in Australia under Standard 1.2.8, "Nutrition Labeling Requirements", "carbohydrate" can be calculated in one of two ways, neither of which includes dietary fiber:

> "Carbohydrate means: (a) 'carbohydrate by difference', calculated by subtracting from 100, the average quantity expressed as a percentage of water, protein, fat, dietary fibre, ash, alcohol, and if quantified or added to the food, any other unavailable carbohydrate and the substances listed in column 1 of Table 2 to subclause 2(2); or (b) 'available carbohydrate', calculated by summing the average quantity of total available sugars and starch, and if quantified or added to the food, any available oligosaccharides, glycogen and maltodextrins."

As a result of these inconsistencies, US and global labels list different carbohydrate values for the same product. For example the carbohydrate content of "Kellogg's All-Bran≤ " sold in the US, UK and Australia (**Appendix C**) differs substantially although the fiber values are similar. Values for total carbohydrate and fiber per 100g in these products are summarized in Table 2.

**Table 2. Total Carbohydrate and Fiber Declarations (g) in the US, UK and Australia per 100g Product, Kellogg's All-Bran®**

| Country | Total Carbohydrate | Fiber |
|---|---|---|
| US | 74 | 35 |
| UK | 46 | 27 |
| Australia | 48 | 28 |

The sum of the total carbohydrate and fiber values in the UK and Australia approximately equal the total carbohydrate value in the US because the US value is inclusive of fiber.

Changing the US definition of "total carbohydrate" would be a positive step in the direction of global label harmonization, potentially aiding in global consumer nutrition education efforts. In addition, such harmonization would minimize the amount of costly duplicative testing and labeling on the part of the food industry.

## III. Conclusion

Amending 21 CFR 101.9 to require *elimination* of fiber from the total carbohydrate declaration on the "Nutrition Facts" panel would accomplish four major goals:

1. Achieve consistency with the National Academy of Sciences' Dietary Reference Intake report on Energy, Carbohydrate, Fiber, Fat, Fatty acids, Cholesterol, Protein and Amino Acids that defined an EAR based on "digestible carbohydrates".
2. Establish consistency between the carbohydrate content and calorie value on the label, allowing consumers to follow recommendations limiting the proportion of nutrients in their diet based on their calorie content
3. Simplify the food label, eliminating the need for terms such as "net" and "available" carbohydrates, and
4. Harmonize US label requirements with those of the *Codex Alimentarius* and of most other countries.

## IV. Environmental Impact

We request categorical exclusion of the need from the environmental assessment requirement under 21 CFR 25.30 (k). There will be no increase in the existing levels of use or change in the intended uses of marketed articles based on this change in the regulation. To the best of our knowledge, no extraordinary circumstances, as defined under 21 CFR 25.21, exist that require submission of an Environmental Assessment.

## V. Economic Impact

We do not believe an economic impact statement is necessary at this time.

## VI. Certification

The undersigned certifies, that, to the best knowledge and belief of the undersigned, this petition includes all information and views on which the petition relies, and that it includes representative data and information known to the petition which are unfavorable to the petition.

Thank you for your consideration.

Scott J Grare
Senior Regulatory Coordinator
Product Assurance and Regulatory Affairs
National Starch and Chemical Company

Rhonda S. Witwer
Business Development Manager
Food Products Division
National Starch andChemicalCompany

## Appendix A: Consumer Research Questions

A brief description of the consumer survey is provided along with the specific questions and actual responses of questions used in this Petition.

### The Fourscore & five Low Carb 'Pulse' Study, 2004

Methodologies and Study Descriptions

The Fourscore & five Low Carb 'Pulse' Study, 2004 was conducted using IdeaMap.net, a Moskowitz Jacobs, Inc. web based technology which utilizes conjoint measurement. It was designed to test three different types of attributes: (1) health related micro and macronutrients with substantiated benefits of reducing risk of disease – fat, calories, fiber, calcium (2) carbohydrate/protein references, and (3) body and weight benefits (related to losing weight, controlling weight, appetite, feeling good, etc.) each with five (5) statements. A total of 460 participants completed this survey from February 3rd to February 9th, 2004. The participants were recruited from a purchased, general population, double opt-in panel (eighteen years and older) who willingly participate in internet consumer research surveys. As an incentive to complete the study, the chance to win a $50 cash incentive was offered.

**Q.** What information do you specifically look for when you read the Nutrition Facts panel on the back of a food package? [check ALL that apply]

| | |
|---|---|
| Serving size | 44% |
| Servings per container | 36% |
| Calories | 53% |
| Calories from fat | 38% |
| Total fat | 48% |
| Saturated fat | 33% |
| Cholesterol | 26% |
| Sodium | 31% |
| Total carbohydrates | 37% |
| Dietary fiber | 19% |
| Sugars | 38% |
| Protein | 24% |
| Vitamins and Minerals | 28% |
| Percent Daily Values | 19% |
| I do not read the Nutrition Facts Panel | 11% |

**Q.** Which, if any, of the following nutritional information do you look for when choosing food items? [check ALL that apply]

| | |
|---|---|
| Fat | 50% |
| Calories | 49% |
| Sugar | 41% |
| Carbs | 36% |
| Saturated fat | 35% |
| Portion size | 31% |
| None | 24% |
| Fiber | 23% |
| Trans fat | 20% |
| Protein | 20% |
| Net carbs | 16% |
| Simple carbs | 11% |
| Net impact carbs | 8% |

# Appendix B: Further Details of Approaches by Food Manufacturers to Communicate Regarding Carbohydrates

Sources: Mintel International Group Ltd. Global New Products Database and product labels

**Company:** Gruma Corporation

**Item ID:** 10164512

**Brand:** Mission

**Product:** Low Carb Whole Wheat Tortilla

**Category:** Bakery

**Sub-Category:** Bread & Bread Products

**Country:** USA

**Launch Type:** New Variety/Range Extension

**Date Published:** Mar-2004

**Price in local currency:** $4.09

**Price in US Dollars:** $4.09

**Pack Size:** 20.00oz

**Package Type:** Flexible

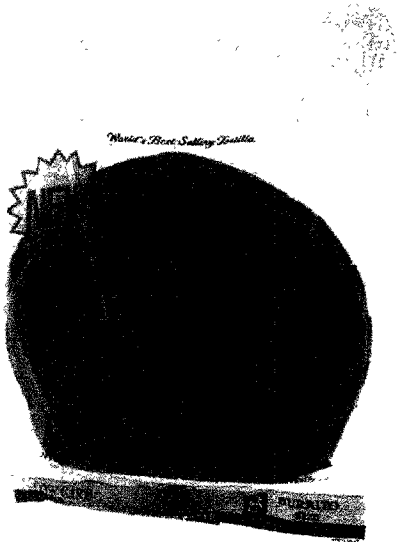
**Package Material:** Plastic

**Storage:** Chilled

**Bar Code:** 073731001189

**Distribution Type:** Supermarket

**New Product Count:** 4



**Product Description**

Mission enters the low carb market with Regular and Whole Wheat Tortillas. They contain only 10g net carbs and deliver 8g of protein per serving. Burrito and Fajita sizes are available. Eight tortillas per resealable package. Fajita sizes have 5g net carbs and retail for $2.39.

**Ingredients**

Burrito: water, modified wheat starch, whole wheat flour, wheat gluten, powder cellulose, vegetable shortening (partially hydrogenated soybean oil and/or cottonseed oil), wheat protein isolate (wheat gluten, lactic acid, sulfite), salt, leavening (sodium bicarbonate, sodium aluminum, sulfate, corn starch, monocalcium phosphate and/or sodium acid pyrophosphate, calcium sulfate), cellulose gum, calcium propionate, sorbic acid, distilled monoglycerides, wheat starch, amaylase, tricalcium phosphate, natural flavor, sunflower oil, sucralose, caramel color, dough conditioners (fumaric acid, sodium metabisulfite)

**Nutrition**

Serving size 1 tortilla (70g), servings per container 8, calories 200, calories from fat 40, total fat 4.5g, saturated fat 1g, cholesterol 0mg, sodium 560mg, total carbohydrates 31g, dietary fiber 21g, sugars 0g, protein 8g, vitamin A 0%, vitamin C 0%, calcium 10%, iron 4%

**Positioning Claims**

Low Cholesterol
Premium

**Company:** Schmidt Bakery

**Item ID:**

**Brand:** Roman Meal Carb Aware

**Product:** 100% Whole Wheat Bread

**Category:** Bakery

**Sub-Category:** Bread & Bread Products

**Country:** USA

**Launch Type:** New Variety/Range Extension

**Date Published:**

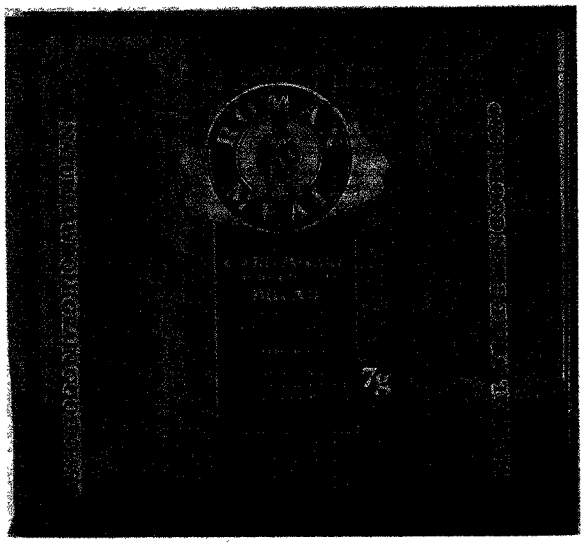
**Pack Size:** 16.00oz

**Package Type:** Flexible

**Storage:** Shelf stable

**Distribution Type:** Supermarket

**New Product Count:** 1



| Product Variant | Flavours | Positioning Claims |
|---|---|---|
| - | - | Low Carb_ |

**Product Description**

With "only 7 net carbs per serving," Roman Meal Carb Aware 100% Whole Wheat Bread debuts. It is touted as a way to eat smart.

**Ingredients**

Water, whole wheat flour, vital wheat gluten, soy protein, wheat protein, wheat bran, yeast, brown sugar, maltitol, soybean oil, salt, dough conditioners (contains one or more of the following: datek, guar gum, sodium stearoyl lactylate, ethoxylated mono- and diglycerides, mono- and diglycerides, calcium sulfate, azcocarbonamide), malt, ammonium sulfate, calcium propionate, (preservative).

**Nutrition**

Serving size 1 slice (28g), servings per container 20, calories 60, calories from fat 10, total fat 1g, saturated fat 0g, trans fat 0g, cholesterol 0mg, sodium 130mg, total carbohydrates 9g, dietary fiber 2g, sugars 1g, maltitol 1g, protein 5 g, vitamin A 0%, vitamin C 2%, calcium 2%, iron 4%, thiamin 4%, riboflavin 10%, niacin 20%, folate 2%.

**Company:** Snapple Beverages

**Parent Company:** Cadbury-Schweppes Beverages

**Brand:** Snapple-a-Day

**Product:** Fit For a Low Carb Lifestyle Juice Drinks

**Category:** Beverages

**Sub-Category:** RTD Juices & Juice Drinks

**Country:** USA

**Launch Type:** New Variety/Range Extension

**Price in local currency:** $1.39

**Pack Size:** 16 oz.

**Package Type:** Bottle

**Package Material:** Plastic

**Storage:** Shelf Stable

**Distribution Type:** Convenience store

**New Product Count:** 3

**Product Description**

Claimed to be a way for carb conscious consumers to maintain a healthy diet and get needed vitamins and minerals, the company launches Snapple-A-Day Fit For a Low Carb Lifestyle Juice Drinks: Berry Banana, Blueberry, and Mango Lime. They will be available beginning in January 2004. Product label Blueberry flavor: "For those watching their carbs, count 9 grams: Total Carbs 15 g, Less Fiber 7 g = Net Carbs = 9 g."

**Ingredients**

Water, soy protein isolate, pear juice concentrate, gum arabic, maltodextrin, natural flavors, pectin, blueberry juice concentrate, phosphoric acid, cellulose gel, citric acid, cellulose gum, sucralose, red 40, acesulfame potassium, blue 1, magnesium lactate, potassium phosphate, calcium phosphate, ascorbic acid, choline bitatrate, vitamin E acetate, zinc gluconate, ferric orthophosphate, niacinamide, manganese gluconate, calcium pantothenate, pyridoxine hydrochloride, vitamin A palmitate, riboflavin, thiamine hydrochloride, beta carotene, folic acid, biotin, potassium iodine, chromium chloride, sodium molybdate, phytonadione (vitamin K1), sodium selenite, vitamin B12.

**Nutrition**

Serving size 1 bottle (340 mL), calories 90, calories from fat 0, total fat 0g, saturated fat 0g, cholesterol 0mg, sodium 150mg, potassium 500 mg, total carbohydrate 16g, dietary fiber 7g, sugars 7g, protein 7g, vitamin A 35%, vitamin C 100%, calcium 25%, iron 15%, vitamin E 100%, vitamin K 25%, thiamin 35%, riboflavin 35%, niacin 35%, vitamin B6 35%, folic acid 50%, vitamin B12 35%, biotin 35%, pantothenic acid 35%, phosphorous 14%, iodine 35%, magnesium 35%, zinc 15%, selenium 25%, manganese 35%, chromium 35%, molybdenum 35%.

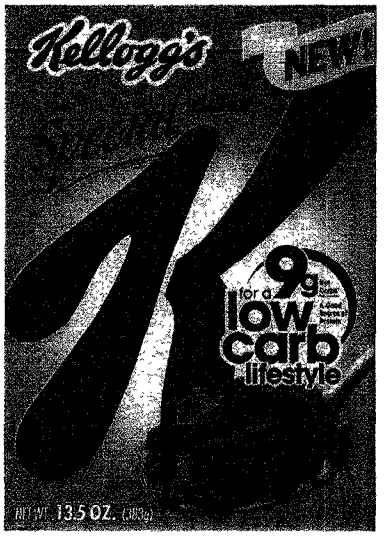
**Positioning Claims**

No Additives/Preservatives, Kosher, Vitamin/Mineral Fortified, Low Carb

**Flavours**

Banana Berry, Blueberrry, Mango Lime

**Company:** Kellogg USA
**Item ID:** 10169323
**Brand:** Special K
**Product:** Low Carb Lifestyle Cereal
**Category:** Breakfast Cereals
**Sub-Category:** Cold Cereals
**Country:** USA
**Launch Type:** New Product
**Date Published:** May-2004
**Price in local currency:** $3.99
**Price in Euros:**€3.3
**Price in US Dollars:** $3.99
**Pack Size:** 13.5 oz
**Package Type:** Carton
**Package Material:** Board
**Storage:** Shelf stable
**Bar Code:** 38000209130
**Distribution Type:** Supermarket
**Distribution:** National
**New Product Count:** 1



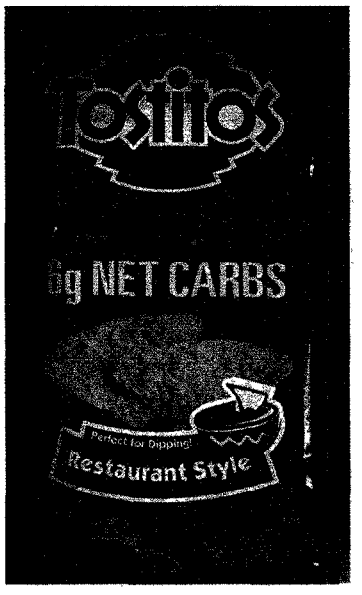

**Product Description**
Consisting of lightly sweetened wheat, soy and rice flakes, Special K Low Carb Lifestyle Cereal debuts. A serving size contains only 9g of net carbs and is a good source of protein.

**Ingredients**
Wheat bran, soy grits, rice, wheat gluten, soybean oil, whole grain wheat, soy protein isolate, sugar, salt, high fructose corn syrup, malt flavor, natural and artificial flavor, ascorbic acid (vitamin C), sucralose, alpha tocopherol acetate (vitamin E), reduced iron, niacinamide, acesulfame potassium, pyridoxine hydrochloride (vitamin B6), riboflavin (vitamin B2), thiamin hydrochloride (vitamin B1), vitamin A palmitate, folic acid, vitamin B12. Contains wheat and soybean ingredients.

**Nutrition**
Serving size ¾ cup (29g/1oz), servings per container about 13, calories 100, calories from fat 30, total fat 3g, saturated fat 0.5g, trans fat 0g, cholesterol 0mg, sodium 110mg, potassium 320g, total carbohydrate 14g, dietary fiber 5g, sugars 2 g, other carbohydrate 7g, protein 10g, vitamin A 15%,vitamin C 35%, calcium 4%, iron 45%, vitamin E 35%, thiamin 35%, riboflavin 35%, niacin 35%, vitamin B6 35%, folic acid 35%, vitamin B12 35%, phosphorous 20%, magnesium 15%, zinc 8%, selenium 10%, copper 6%.

**Positioning**
Low carb

**Company:** PepsiCo (Frito-Lay)
**Item ID:** 10158723
**Brand:** Tostitos Edge
**Product:** Low Carb Chips
**Category:** Snacks
**Sub-Category:** Savoury/Salty Snacks
**Country:** USA
**Launch Type:** New Product
**Date Published:** Jan-2004
**Price in local currency:** $2.99
**Pack Size:** 6 oz
**Package Type:** Flexible
**Package Material:** Other
**Storage:** Shelf stable
**Bar Code:** 28400039390
**Distribution Type:**
**Distribution:** National
**New Product Count:** 1




**Product Description**
Joining in the low-carb fray, Frito-Lay will launch two new chip products that contain 6g of net carbohydrates, 10g of protein, and 3g of fiber per serving. Doritos Edge and Tostitos Edge will launch nationally in May 2004; the Doritos product is currently in test in Phoenix. Both use soy proteins and fiber as substitute ingredients. "**6 g of Net Carbohydrates was determined by subtracting dietary fiber (3g) from the total carbohydrates (9g)."

**Ingredients**
Soy protein blend (soy protein isolates and concentrates), corn, vegetable oil (contains one or more of the following: corn, soybean, or sunflower oil), oat fiber, salt; contains soy ingredients.

**Nutrition**
Serving size 1 oz. (28g/about 12 chips), servings per container 6, calories 140, calories from fat 70, total fat 8g, saturated fat 1g, trans fat 0g, cholesterol 0mg, sodium 270mg, total carbohydrate 9g, dietary fiber 3g, sugars 0g, protein 11g, vitamin A 0%,vitamin C 0%, calcium 2%, iron 20%.

**Positioning**
Low Carb

**Company:** American Italian Pasta

**Item ID:** 10167650

**Brand:** R&F

**Product:** Reduced Carb Penne Rigate

**Category:** Side Dishes

**Sub-Category:** Pasta

**Country:** USA

**Launch Type:** New Variety/Range Extension

**Date Published:** Apr-2004

**Price in local currency:** $1.99

**Price in US Dollars:** $1.99

**Pack Size:** 12.00oz

**Package Type:** Carton

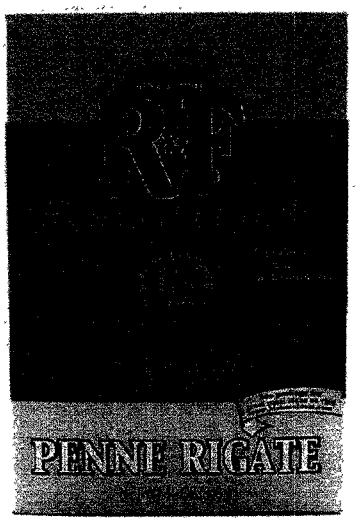
**Package Material:** Board

**Storage:** Shelf stable

**Bar Code:** 047325007611

**Distribution Type:** Supermarket

**New Product Count:** 1




**Product Description**

The company introduces R&F Reduced Carb Penne Rigate. It contains 1/2 the carbs of the company's regular pasta.

**Ingredients**

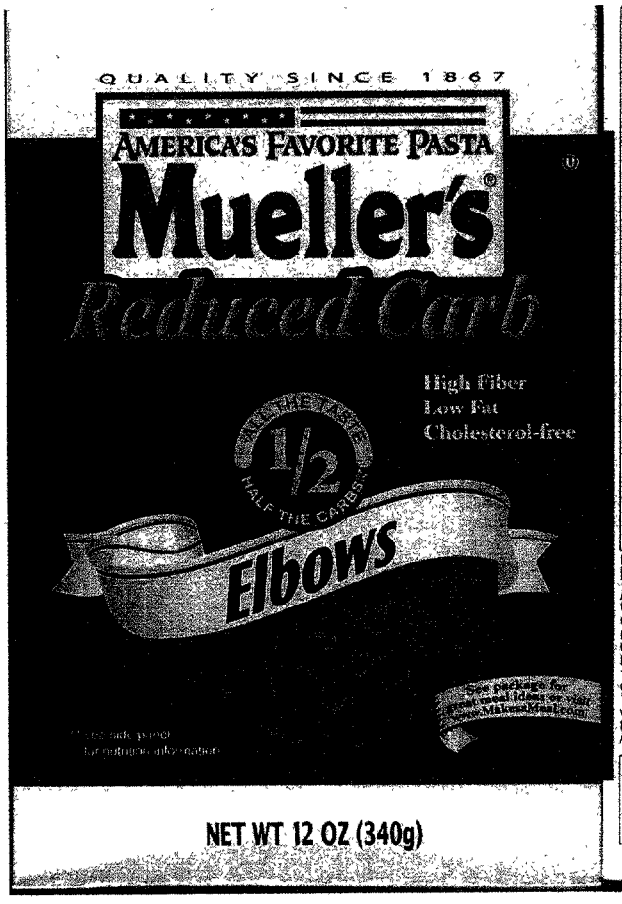
Enriched semolina [semolina, niacin, ferrous sulfate (iron), thiamine mononitrate, riboflavin, folic acid], modified wheat starch, powdered wheat protein, wheat protein isolate; contains wheat ingredients

**Nutrition**

Serving size 2/3 cup (56g) dry, servings per container 6, calories 200, calories from fat 10, total fat 1g, saturated fat 0g, trans fat 0g, polyunsaturated fat 0.5g, monounsaturated fat 0g, cholesterol 0mg, sodium 180mg, total carbohydrate 31g**, dietary fiber 12g, sugars 1g, protein 16g, vitamin A 0%, vitamin C 0%, calcium 4%, iron 8%, thiamine 10%, riboflavin 4%, niacin 10%, folate 15%

**Positioning Claims**

Low Cholesterol
Added Fiber
Low Fat




## Nutrition Facts

Serving Size 1/2 cup (56g) dry
Servings Per Container 6

| Amount Per Serving | |
|---|---|
| **Calories** 200 | Calories from Fat 10 |
| | **% Daily Value*** |
| **Total Fat** 1g | 2% |
| Saturated Fat 0g | 0% |
| Trans Fat 0g | |
| Polyunsaturated Fat 0.5g | |
| Monounsaturated Fat 0g | |
| **Cholesterol** 0mg | 0% |
| **Sodium** 180mg | 8% |
| **Total Carbohydrate** 31g** | 10% |
| Dietary Fiber 12g | 48% |
| Sugars 1g | |
| **Protein** 16g | |

| | | |
|---|---|---|
| Vitamin A 0% | • | Vitamin C 0% |
| Calcium 4% | • | Iron 8% |
| Thiamine 10% | • | Riboflavin 4% |
| Niacin 10% | • | Folate 15% |

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

| | Calories: | 2,000 | 2,500 |
|---|---|---|---|
| Total Fat | Less than | 65g | 80g |
| Sat Fat | Less than | 20g | 25g |
| Cholesterol | Less than | 300mg | 300mg |
| Sodium | Less than | 2,400mg | 2,400mg |
| Total Carbohydrate | | 300g | 375g |
| Dietary Fiber | | 25g | 30g |

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

**INGREDIENTS:** ENRICHED SEMOLINA (SEMOLINA, NIACIN, FERROUS SULFATE (IRON), THIAMINE MONONITRATE, RIBOFLAVIN, FOLIC ACID), MODIFIED WHEAT STARCH, POWDERED WHEAT PROTEIN, WHEAT PROTEIN ISOLATE

**CONTAINS WHEAT INGREDIENTS**

**DISTRIBUTED BY:** AMERICAN-ITALIAN PASTA COMPANY, KANSAS CITY, MO 64116

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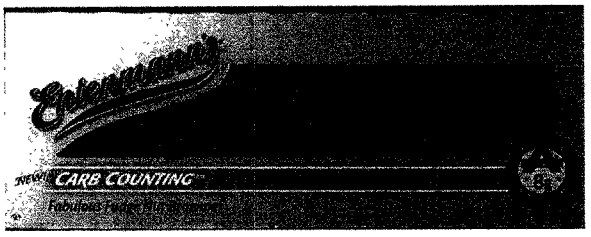
www.makesameal.com



**Pasta Comparison**

| | Reduced Carb | Regular |
|---|---|---|
| Total Carbs | 31g | 41g |
| Dietary Fiber | 12g | 2g |
| **Net Carbs | 19g | 39g |
| Protein | 16g | 7g |

**Net Carbs is calculated by subtracting dietary fiber, which has a minimal impact on blood sugar, from Total Carbs




**Parent Company:** George Weston Bakeries

**Company:** Entenmann's

**Item ID:** 10164714

**Brand:** Entenmann's Carb Counting

**Product:** Low Carb Sweet Goods

**Category:** Bakery

**Sub-Category:** Cakes, Pastries & Sweet Goods

**Country:** USA

**Launch Type:** New Product

**Date Published:** Mar-2004

**Price in local currency:** $4.49

**Price in US Dollars:** $4.49

**Pack Size:** 12.00oz

**Package Type:** Carton

**Package Material:** Board

**Storage:** Shelf stable

**Bar Code:** 072030015453

**Distribution Type:** Supermarket

**New Product Count:** 5

**Product Description**

Entenmann's Carb Counting line of Low Carb Sweet Goods is now available. Each package bears the Atkins logo and its net carb count. Included in the line are Blueberry Breakfast Muffins (9g each), Fabulous Fudge Nut Brownie (8g), Crumb Cake, Pound Cake, and Brownies. As indicated on the package, these products are not appropriate for Atkins dieters in stages 1-3, which is where weight loss occurs, but rather in stage 4, Lifetime Maintenance. Chocolate Chip Cookies are also available, see separate record.

**Ingredients**

Blueberry Muffins: eggs, blueberries, maltitol syrup, soybean oil, water, bleached wheat flour, inulin, isomalt, isolated soy protein, glycerin, oat fiber, modified cornstarch, natural & artificial flavors, polydextrose, wheat gluten, leavening (baking soda, sodium acid pyrophophate, monocalcium phosphate), salt, preservatives (potassium sorbate, sorbic acid, sodium propionate), mono- and diglycerides, sorbitan monostearate, xanthan gum, guar gum, sodium stearoyl lactylate, polysorbate 60, malic acid, acesulfame potassium

**Nutrition**

Serving size 1 muffin (57g), servings per container 6, calories 160, calories from fat 80, total fat 9g, saturated fat 1.5g, trans fat 0g, polyunsaturated fat 4.5g, monounsaturated fat 2g, cholesterol 45mg, sodium 240mg, total carbohydrate 22g, dietary fiber 4g, sugars 2g, sugar alcohol 8g, protein 4g, vitamin A 0%, vitamin C 0%, calcium 0%, iron 2%

**Flavours :** Blueberry, Other

From chocolate Chip & Nut Loaf: "For those controlling their carbs, count only 9 grams of the 21 grams of Total Carbs in this product. Subtract dietary fiber (4g) and sugar alcohol (8g) which have a minimal impact on blood sugar. Learn more: www.atkinscenter.com/netcarbs

This product is not appropriate for weight loss phases 1-3 but is appropriate for Lifetime Maintenance (Phase 4) of the *Atkins Nutritional Approach*□ .

**Company:** Unilever Bestfoods

**Brand:** Carb Options

**Product:** Snack Bars

**Category:** Snacks

**Sub-Category:** Snack Bars, Snack Mixes & Energy Bars

**Country:** USA

**Launch Type:** New Product

**Date Published:** Jan-2004

**Package Type:** Flexible

**Storage:** Shelf stable

**Distribution Type:** Supermarket

**New Product Count:** 3

**Product Description**

Offering 2g of net carbs per 50g serving, the Carb Options line of low carb foods offers three varieties of Snack Bars: Chocolate Peanut Bar, Chocolate Chip Brownie Bar, and Cinnamon Delight Bar. Explanation on the Cinnamon Delight Bar: Net Carbs Calculation: for those watching their carbs, count 2 grams. From 17 g total carbohydrate, subtract 14 g of sugar alcohol and 1g of other carbohydrates, as these have minimal impact on blood sugar.

**Ingredients**

Chocolate Chip Brownie: maltitol syrup, chocolate flavored coating [partially hydrogenated vegetable oil (palm kernel, palm), erythritol, milk protein isolate, inulin, cocoa, soy lecithin, artificial flavor, salt, sucralose (a nonnutritive sweetener)], casein, soy protein isolate, gelatin, high oleic sunflower oil with tocopherols added to protect flavor, calcium caseinate, glycerine, water, cocoa, chocolate flavored chips (maltitol, unsweetened chocolate, cocoa butter, soy lecithin, natural flavor), natural flavor, unsweetened chocolate, cocoa (processed with alkali), partially hydrogenated palm oil, maltodextrin, salt, soy lecithin and sucralose; vitamins and minerals: calcium phosphate, potassium phosphate, magnesium oxide, ascorbic acid, vitamin E acetate, niacinamide, ferric orthophosphate, calcium pantothenate, zinc oxide, vitamin A palmitate, pyridoxine hydrochloride, riboflavin, thiamin mononitrate, biotin, folic acid, chromium chloride, potassium iodide, sodium molybdate, sodium selenite, phytonadione (vitamin K1), cholecalciferol (vitamin D3) and cyanocobalamin (vitamin B12); sweetened with nutritive sweeteners and a nonnutritive sweetener. Excess consumption may cause a laxative effect.

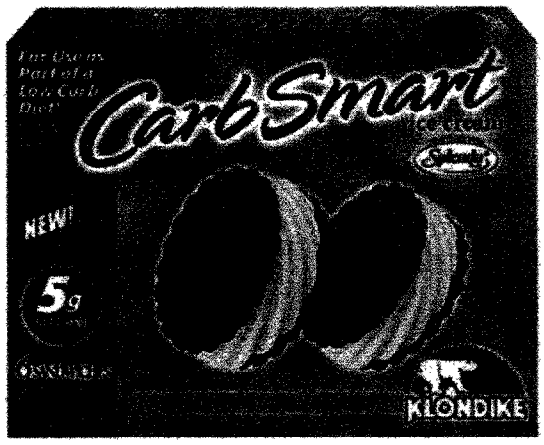
**Nutrition**

Serving size 1 bar (50g), calories 200, calories from Fat 70, total fat 8g, saturated fat 4g, trans fat 0g, cholesterol <5mg, sodium 200mg, potassium 400mg, total carbohydrate 17g, dietary fiber <1g, sugars 0g, sugar alcohol 13g, other carbohydrate 3g, protein 16g

**Flavours**

Chocolate
Cinnamon
Peanut

## Unilever Bestfoods Klondike CarbSmart™ Ice Cream Sandwiches




**Product Description**
The company introduces low carb vanilla ice cream sandwiches. This product contains only 5 net carbs per serving*Net Carbs Calculation: For those watching their carbs, count only 5 grams. From 10 g total carbohydrate, subtract 4 g of sugar alcohols and 1 g of fiber, as these have minimal impact on blood sugar."

**Ingredients**
Nonfat milk, milkfat, polydextrose, sorbitol, fructose, glycerine, natural flavor, mono- and diglycerides, guar gum, xanthan gum, locust bean gum, cellulose gel, cellulose gum, polysorbate 80, sucralowe (Splenda≤ brand), acesulfame potassium. **Chocolate Wafer:** bleached wheat flour, isomalt, maltitol, vegetable shortening (partially hydrogenated soybeam oil & partially hydrogenated cottonseed oil), soy protein isolate, sorbitol, caramel color (for color), soy flour, wheat gluten, polydextrose, corn starch, modified corn starch, corn flour, cocoa, mono- and diglycerides, soy lecithin, salt, baking soda, natural and artificial flavor, sucralose (Spenda≤ brand).

**Nutrition**
Serving size 1 sandwich (34g), servings per container 6, calories 80, calories from fat 40, total fat 4.5g, saturated fat 2.5g, cholesterol 10mg, sodium 95 mg, total carbohydrate 10g, dietary fiber 1g, sugars 2g, sugar alcohols 4g, protein 9g, vitamin A 2%, vitamin C 0%, calcium 4%, iron 0%

**Positioning Claims**
Low Carb

**Company:** Kellogg USA

**Item ID:** 10169775

**Brand:** Keebler Chips Deluxe

**Product:** Carb Sensible Cookies

**Category:** Bakery

**Sub-Category:** Sweet Biscuits/Cookies

**Country:** USA

**Launch Type:** New Variety/Range Extension

**Date Published:** May-2004

**Price in local currency:**

**Pack Size:** 5.6 oz.

**Package Type:** Flexible

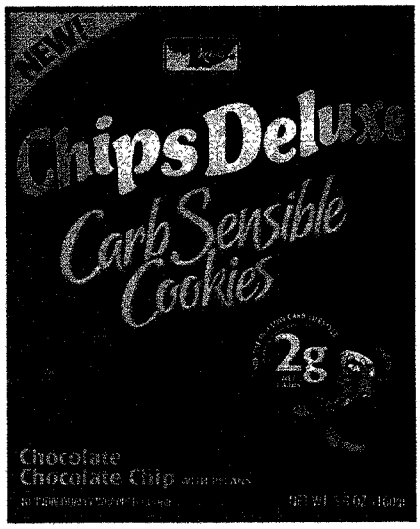
**Package Material:** Other

**Storage:** Shelf Stable

**Bar Code:** 30100204633

**Distribution Type:** Supermarket

**New Product Count:** 3




**Product Description**

Proclaimed to have only 4g net carbs and to be suitable for use in low-carb lifestyles, Keebler Chips Deluxe Carb Sensible Cookies debut. A 10-ct. carton of Chocolate Chip variety contains individually-wrapped cookies. Other varieties include Chocolate Chocolate Chip and Peanut Butter.

**Ingredients**

Chocolate Chip: bleached enriched flour (wheat flour, niacin, reduced iron, thiamin mononitrate [vitamin B1], riboflavin [vitamin B2], folic acid), semisweet chocolate (sugar, chocolate, cocoa butter, soy lecithin, natural and artificial flavor, salt), maltitol, butter (cream, salt), vegetable oil (sunflower, palm and palm kernel oil), lactitol, polydextrose, almonds, oat fiber, semisweet chocolate (maltitol, chocolate [processed with alkali], cocoa butter, soy lecithin, natural flavor), sodium caseinate, contains 2% or less of maltodextrin, mono- and diglycerides, egg, natural and artificial flavors, leavening (baking soda, sodium acid pyrophosphate), wheat protein, salt, sucralose, pecans, peanuts, acesulfame potassium; contains wheat, milk, almond, egg, pecan, peanut ingredients

**Nutrition**

**Positioning Claims**

Low Carb

**Flavours**

Chocolate Chip
Chocolate Chocolate Chip
Peanut Butter

**Parent Company:** Altria Group

**Company:** Kraft Foods

**Item ID:** 10170105

**Brand:** SnackWell's CarbWell

**Product:** Low Carb Cookies

**Category:** Bakery

**Sub-Category:** Sweet Biscuits/Cookies

**Country:** USA

**Launch Type:** New Variety/Range Extension

**Date Published:** May-2004

**Price in local currency:** $2.59

**Price in Euros:** €2.14

**Price in US Dollars:** $2.59

**Pack Size:** 5.50oz

**Package Type:** Carton

**Package Material:** Board

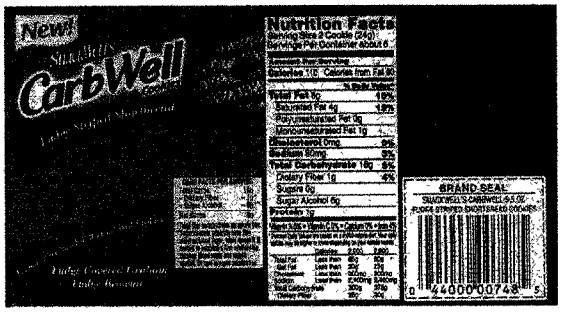
**Storage:** Shelf stable

**Bar Code:** 044000007485

**Distribution Type (US records only):**

Supermarket

**New Product Count:** 3


| Product Variant | Flavours | Positioning Claims |
|---|---|---|
| Fudge Brownie | Chocolate | Low Calorie |
| | Other Flavour | Low Carb_ |
| Fudge Striped | Chocolate | Low Calorie |
| | Other Flavour | Low Carb_ |
| Fudge Grahams | Chocolate | Low Calorie |
| | Other Flavour | Low Carb_ |

**Product Description**

Satisfying the demand for lower carbohydrate products, Kraft introduces SnackWell's Carbwell Low Carb Cookies. The line consists of three varieties: Fudge Brownie, Fudge Striped, and Fudge Grahams. All varieties are said to contain less than 120 calories and only 9g or less of net carbs.

**Ingredients**

Fudge Striped: enriched flour (wheat flour, niacin, reduced iron, thiamine mononitrate {vitamin

b1}, riboflavin {vitamin B2}, folic acid), maltitol*, partially hydrogenated palm kernel and soybean oil, polydextrose*, yellow corn flour, cocoa (processed with alkali), cornstarch, salt, leavening (baking soda, sodium acid pyrophosphate, calcium phosphate), natural and artificial flavor, soy lecithin (emulsifier), acesulfame potassium (sweetener), artificial color (included red 40 lake, yellow 5, blue 1); * excess consumption may have a laxative effect

**Nutrition**

Serving size 2 cookies (24g), servings per container about 6, calories 110, calories from fat 60, total fat 6g, saturated fat 4g, polyunsaturated fat 0g, monounsaturated fat 1g, cholesterol 0mg, sodium 80mg, total carbohydrate 16g, dietary fiber 1g, sugars 0g, sugar alcohol 6g, protein 1g, vitamin A 0%, vitamin C 0%, calcium 0%, iron 4%

Information on rear label:

CARB FACTS PER SERVING

| | |
|---|---|
| Total Carbs | 16 g |
| - Dietary fiber | - 1g* |
| - Sugar Alcohol | - 6g** |
| Net Carbs | 9 g |

*These fiber carbohydrates are calorie free.
** Sugar alcohols generally have little effect on blood sugar. More research is needed to establish a firm relationship between blood sugar and weight control. Be sure to count calories too.

**Parent Company:** Unilever Foods

**Company:** Slim-Fast Foods

**Item ID:** 10162241

**Brand:** Slim-Fast

**Product:** New Control Carb Meal Bar Packaging

**Category:** Snacks

**Sub-Category:** Snack Bars, Snack Mixes & Energy Bars

**Country:** USA

**Launch Type:** New Packaging

**Date Published:** Feb-2004

**Price in local currency:** $7.99

**Price in Euros:** €6.96

**Price in US Dollars:** $7.99

**Pack Size:** 8.80oz

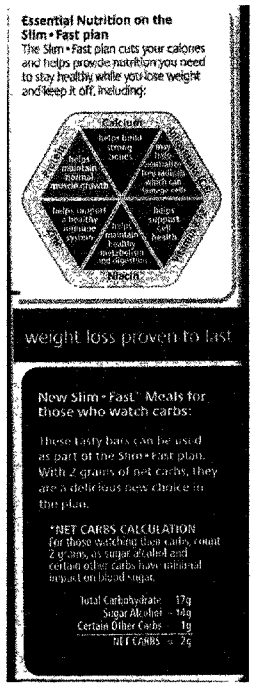
**Package Type:** Flexible

**Package Material:** Other

**Storage:** Shelf stable

**Bar Code:** 008346045327

**Distribution Type:** Supermarket


| Product Variant | Flavours | Positioning Claims |
|---|---|---|
| Cinnamon Bun | Cinnamon | Low Carb_ |
| Chocolate Peanut Butter | Chocolate Peanut butter | Low Carb_ |
| Chocolate Brownie | Chocolate | Low Carb_ |
| Cookies n' Cream | Other Flavour | Low Carb_ |

**Product Description**

Slim-Fast Control Carb Meal Bars are now available in a mulit-piece package. They come in three flavors; Cinnamon Bun, Chocolate Peanut Butter, Cookies n' Cream, and Chocolate Brownie. A box contains five bars, with each bar containing 2g of net carbs.

**Ingredients**

Cinnamon Bun: maltitol syrup, yogurt flavored coating [partially hydrogenated vegetable oil (palm kernel, palm erythitol, milk protein isolate, inulin, nonfat yogurt powder (cultured nonfat milk), lactic acid, soy lecithin, artificial flavor, salt, sucralose (a non-nutrititve sweetener]), soy

protein isolate, casein, gelatin, high oleic sunflower oil with tocopherols added to protect flavor, calcium caseinate, glycerine, artificial flavor, water, partially hydrogenated palm oil, soy lecithin, maltodextrin, cinnamon, salt, caramel color and sucralose; vitamins and minerals: potassium phosphate, calcium phosphate, magnesium oxide, ascorbic acid), vitamin E acetate, niacinamide, ferric orthphosphate, calcium pantothenate, zinc oxide, vitamin A palmitate, pyridoxine hydrochloride, riboflavin, thiamine mononitrate, biotin, folic acid, chromium chloride, potassium iodide, sodium molybdate, sodium selenite, phytonadione (vitamin K1), cholecalciferol (vitamin D3) and cyancobalamin (vitamin B12); sweetened with nutritive sweeteners and non-nutritive sweetener

**Nutrition**

Serving size 1 bar (50g), servings per container 5, calories 200, calories from fat 70, total fat 8g, saturated fat 4g, trans fat 0g, cholesterol <5mg, sodium 200mg, potassium 400mg, total carbohydrate 17g, dietary fiber 0g, sugars 0g, sugar alcohol 14g, other carbohydrate 3g, protein 16g, vitamin A 35%, vitamin C 35%, calcium 30%, iron 15%, vitamin D 35%, vitamin E 35%, vitamin K 25%, thiamin 15%, riboflavin 35%, niacin 35%, vitamin B6 35%, folate 15%, vitamin B12 35%, biotin 35%, pantothenic acid 35%, phosphorus 40%, iodine 35%, magnesium 35%, zinc 15%, selenium 25%, chromium 30%, molybdenum 35%

*NET CARBS CALCULATION

For those watching their carbs, count 2 grams, as sugar alcohol and certain other carbs have minimal impact on blood sugar.

| | |
|---|---|
| Total Carbohdyrate | 17g |
| Sugar Alcohol | - 14 g |
| Certain Other Carbs | - 1 g |
| NET CARBS = | 2g |

**Company:** Dakota Growers Pasta

**Item ID:** 10171181

**Brand:** Dreamfields

**Product:** Low Carb Penne Rigate Pasta

**Category:** Side Dishes

**Sub-Category:** Pasta

**Country:** USA

**Launch Type:** New Product

**Date Published:** May-2004

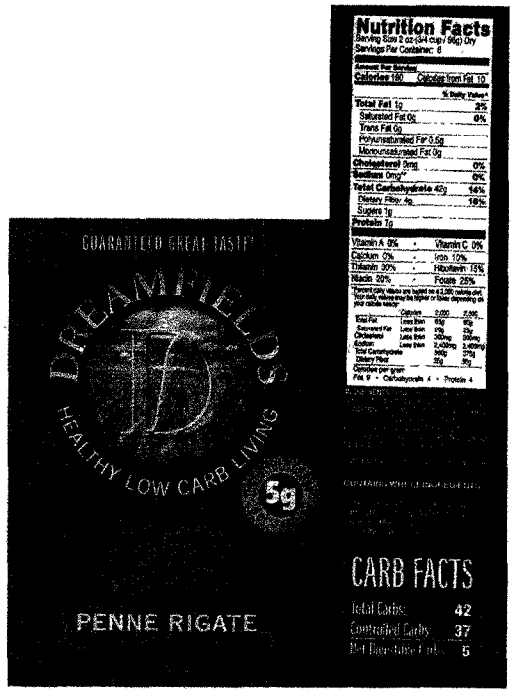
**Pack Size:** 16.00oz

**Storage:** Shelf stable

**Distribution Type (US records only):**

Supermarket

**New Product Count:** 1




| Product Variant | Flavours | Positioning Claims |
|---|---|---|
| - | - | Low Carb_ |

**Product Description**

The company introduces its Dreamfields Low Carb Penne Rigate Pasta for carb-conscious consumers. This pasta contains only 5g of digestible carbs per serving.

**Ingredients**

Enriched seminolina, (seminolina, iron (ferrous sulfate), and B vitamins (niacin, thiamin mononitrate, riboflavin, folic acid)], fiber blend (inulin, guar gum, xanthan gum, carrage4enan, pectin), sorbitol, wheat gluten, potassium chloride. Contains wheat ingredients.

**Nutrition Facts**

Serving size 2 oz (3/4 cup/56 g) dry, servings per container 8, calories 190, calories from fat 10, total fat 1g, saturated fat 0g, trans fat 0g, polyunsaturated fat 0.5g, monounsaturated fat 0g, cholesterol 0mg, sodium 0mg, total carbohydrate 42g, dietary fiber 4g, sugars 1g, protein 7g, vitamin A 0%, vitamin C 0%, calcium 0%, iron 10%, thiamin 30%, riboflavin 15%, niacin 20%, folate 25%.

## Appendix C: Comparison of Nutrition Labeling in the US, Europe and Australia

## US

Kellogg's® ALL-BRAN®

# Nutrition Facts

Serving Size ½ Cup (31g/1.1 oz.)
Servings Per Container About 17

| Amount Per Serving | Cereal | Cereal with ½ Cup Vitamin A&D Fat Free Milk |
|---|---|---|
| **Calories** | 80 | 120 |
| Calories from Fat | 10 | 10 |
| | % Daily Value** | |
| **Total Fat** 1g* | 2% | 2% |
| Saturated Fat 0g | 0% | 0% |
| *Trans* Fat 0g | | |
| **Cholesterol** 0mg | 0% | 0% |
| **Sodium** 80mg | 3% | 6% |
| **Potassium** 350mg | 10% | 10% |
| **Total Carbohydrate** 23g | 8% | 10% |
| Dietary Fiber 10g | 40% | 40% |
| Soluble Fiber 1g | | |
| Sugars 5g | | |
| Other Carbohydrate 7g | | |
| **Protein** 4g | | |
| Vitamin A | 10% | 15% |
| Vitamin C | 10% | 10% |
| Calcium | 10% | 25% |
| Iron | 25% | 25% |
| Vitamin D | 10% | 25% |
| Thiamin | 25% | 30% |
| Riboflavin | 25% | 35% |
| Niacin | 25% | 25% |
| Vitamin $B_6$ | 100% | 100% |
| Folic Acid | 100% | 100% |
| Vitamin $B_{12}$ | 100% | 110% |
| Phosphorus | 35% | 45% |
| Magnesium | 25% | 30% |
| Zinc | 10% | 15% |
| Copper | 10% | 10% |

* Amount in cereal. One half cup of fat free milk contributes an additional 40 calories, 65mg sodium, 6g total carbohydrate (6g sugars), and 4g protein

**Percent Daily Values are based on a 2,000 calorie diet Your daily values may be higher or lower depending on your calorie needs:

| | Calories: | 2,000 | 2,500 |
|---|---|---|---|
| Total Fat | Less than | 65g | 80g |
| Saturated Fat | Less than | 20g | 25g |
| Cholesterol | Less than | 300mg | 300mg |
| Sodium | Less than | 2,400mg | 2,400mg |
| Potassium | | 3,500mg | 3,500mg |
| Total Carbohydrate | | 300g | 375g |
| Dietary Fiber | | 25g | 30g |

*Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4*

**Ingredients:** Wheat bran, sugar, high fructose corn syrup, malt flavoring, calcium phosphate, calcium carbonate, salt, sodium ascorbate and ascorbic acid (vitamin C), reduced iron, niacinamide, pyridoxine hydrochloride (vitamin $B_6$), riboflavin (vitamin $B_2$), folic acid, thiamin hydrochloride (vitamin $B_1$), vitamin A palmitate, vitamin $B_{12}$ and vitamin D.

**CONTAINS WHEAT INGREDIENTS.**

**Exchange:** 1 Carbohydrate
The dietary exchanges are based on the *Exchange Lists for Meal Planning*, ©2003 by The American Diabetes Association, Inc and The American Dietetic Association.

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[redacted]

Visit: Kellogg.com for information on promotions, recipes, products, and FAQs.
To check your offer order status go to Kellogg.com/orders
Phone us at 1-800-962-1413
Write to P.O. Box CAMB, Battle Creek, MI 49016-1986
*Provide production code on package*

[redacted]

## UK

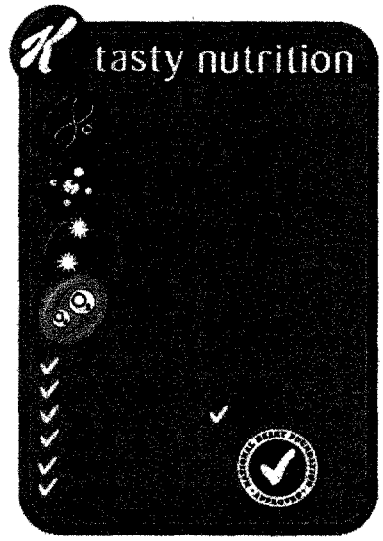
Typical value per 100g

| | |
|---|---|
| Energy | |
| kJ | 1200 |
| kcal | 280 |
| Protein (g) | 14 |
| Carbohydrates | 46 |
| sugars (g) | 16 |
| starch (g) | 30 |
| Fat (g) | 4.5 |
| saturates (g) | 0.7 |
| Fibre (g) | 27 |
| Sodium (g) | 0.85 |

| | |
|---|---|
| Vitamins | |
| Vitamin A (mg) | - |
| Vitamin B (mcg) | 3.1 |
| Vitamin C (mg) | - |
| Vitamin D (mg) | - |
| Thiamin B1 (mg) | 0.9 |
| Riboflavin B2 (mg) | 1 |
| Niacin (mg) | 11.3 |
| Vitamin B6 (mg) | 1.3 |
| Folic Acid (mcg) | 250 |
| Vitamin B12 (mcg) | 0.65 |

| | |
|---|---|
| Minerals (mg) | |
| Iron | 8.8 |
| Zinc | 6 |
| Calcium | - |
| Magnesium | 220 |

# Australia




## NUTRITION INFORMATION

Servings per package - 7
Serving size - 45g (3/4 metric cup)†

| | average quantity per serving | average quantity per serve ½ cup skim milk | average quantity per 100g |
|---|---|---|---|
| **ENERGY** | 629 kJ (151 Cal) | 824 kJ (197 Cal) | 1399 kJ (335 Cal) |
| **PROTEIN** | 6.8 g | 11.4 g | 15.0 g |
| **FAT** | | | |
| **-TOTAL** | 1.4 g | 1.5 g | 3.0 g |
| **-SATURATED** | 0.2 g | 0.4 g | 0.5 g |
| **CARBOHYDRATE** | | | |
| **-TOTAL** | 21.5 g | 28.0 g | 47.8 g |
| **-SUGARS** | 6.1 g | 12.6 g | 13.6 g |
| **DIETARY FIBRE** | 12.4 g | 12.4 g | 27.5 g |
| **SODIUM** | 171 mg | 228 mg | 380 mg |
| **POTASSIUM** | 421 mg | 627 mg | 935 mg |
| **THIAMIN (VIT B1)** | 0.28 mg | 0.33 mg | 0.61 mg |
| (%R.D.I.*) | (25%) | (30%) | (56%) |
| **RIBOFLAVIN (VIT B2)** | 0.4 mg | 0.7 mg | 1.0 mg |
| (% R.D.I.*) | (25%) | (40%) | (56%) |
| **NIACIN** | 2.5 mg | 2.6 mg | 5.6 mg |
| (% R.D.I.*) | (25%) | (26%) | (56%) |
| **FOLATE** | 100 µg | 106 µg | 222 µg |
| (% R.D.I.*) | (50%) | (53%) | (111%) |
| **IRON** | 3.0 mg | 3.1 mg | 6.7 mg |
| (% R.D.I.*) | (25%) | (26%) | (56%) |
| **MAGNESIUM** | 109 mg | 124 mg | 242 mg |
| (% R.D.I.*) | (34%) | (39%) | (76%) |
| **ZINC** | 2.3 mg | 2.8 mg | 5.1 mg |
| (% R.D.I.*) | (19%) | (23%) | (42%) |

* Recommended Dietary Intake (Aust/NZ)

† Cup measurement is approximate and is only to be used as a guide. If you have any specific dietary requirements please weigh your serving.

**INGREDIENTS:** Wheat bran (84%), sugar, malt extract, salt, vitamins (riboflavin, folate, thiamin), mineral (iron), (Natural source of zinc and magnesium).
Contains gluten.
May contain traces of peanuts and/or other nuts.

**INGREDIENTS:** Son de blé (84%), sucre, extrait de malt, sel, vitamines (riboflavine, folate, thiamine), minéral (fer). (Source naturelle de zinc et de magnésium).
Contient du gluten.
Peut contenir des traces de cacahuètes et/ou d'autres noix.

**KELLOGG'S - MADE IN AUSTRALIA, EXPORTING TO THE WORLD**