

This comprehensive report is based on in-depth interviews with suppliers and food users completed by an extensive desk review.

It provides for DECISION MAKERS a global understanding of the sector as well as an outlook on its future.

MARKET ANALYSIS

- New trends and perspectives
- Usage of ingredients: volume - value
- Production volumes by country
- Suppliers
- Dietetic, Medical and Sportsfood manufacturers company profiles

INGREDIENTS

- Whey protein hydrolysate
- Casein hydrolysates

FOOD SEGMENTS

- Infant formula
- Dietetic & Sport & Slimming foods
- Clinical Nutrition

COUNTRIES COVERED

- North America
- Western Europe



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OBJECTIVES

MARKET

Trends
Industrial user's expectations
Prospective

MANUFACTURERS

Food industry orientations
Applications in food segments
Consumption

RESEARCH

New researches and new developments

Description

Milk protein hydrolysates are a group of peptides derived from milk proteins. There are two sources of milk protein hydrolysates: whey protein hydrolysates and casein hydrolysates.

Nutritional properties

Peptides may be absorbed slightly better and more quickly than amino acids or whole protein. This is due to the fact that di- and tripeptides can be directly absorbed from the gut by uptake systems that are independent of those used by amino acids. Moreover, recent studies have found that rats grow more rapidly when fed with isocaloric and isonitrogenous quantities of peptide diets as compared to intact protein and amino acids based diets.

Nutraceutical properties

Both whey protein hydrolysates and casein hydrolysates have low antigenic properties.

Symptoms

Cow milk protein allergy (CMPA) is characterized by a wide range of symptoms and signs affecting the gastro-intestinal tract, the respiratory system and the skin. Symptoms include those commonly associated with immunoglobulin E (IgE)-associated reactions, and Non-IgE-associated, immunological mediated conditions (table 1).

All proteins are potentially allergenic. Unmodified cow's milk itself contains more than 32 proteins of high allergic potential that may induce CMPA:

The three most important are:

β -lactoglobulin	18 kDa
caseins	18 - 24 kDa
α -lactalbumine	14 kDa

Those proteins are indeed more frequently allergenic than bovine serum albumin (68 kDa), lactoferrine, and gammaglobulines...

Summary of interviews :

- Name of the Company
- Level of competition and competitive products (level of hydrolysis and methods of measurement)
- Volume of hydrolysates used
- What do purchasers expect from new products
- At a nutritional level?
- At the functional level? (thermo stability, stability with a low pH, improved solubility and viscosity)
- At the level of hydrolysis concentration?
- Moderate Hydrolysates: DH 10 to DH 20
- HA Hydrolysates (allergy prevention) : 20<DH<30
- Hydrolysates for clinical use (allergy treatment) : DH over 30
- At the level of peptide size
- At the level of bioactive peptides

C O N S U L T I N G

MARKET

Clinical nutrition

During the common process of nutrition, dietary proteins are presented to the immune system via the gut, followed by an immune unresponsiveness to the ingested nutrients. This vital phenomenon, called oral tolerance, is efficient for the large majority of people. If oral tolerance fails, food allergy occurs, requiring the strict avoidance of the incriminated food.

Targeted food avoidance represents a hard task for adult patients with food allergy. For example, to strictly remove cow's milk from the diet of allergic infants might be even more difficult, especially if breastfeeding is not possible or desired.

Sports food

Hydrolysates present, besides a faster digestibility, the advantage of maintaining a higher biological value of the proteins. This is particularly true for whey, which is also less concerned by the speed of digestibility since non hydrolysed proteins are already rapidly digested at the beginning of the duodenum.

Infant nutrition

Protein allergy is more than a tolerance problem. It means that the infant's immune system has responded in an abnormal way to the protein in his/her diet. This can happen with both milk-based and soy-based formulas, and it tends to

run in families. What happens is that the baby's immune system identifies the "whole" protein in his/her formula as foreign. His/her immune system responds much like it would to a virus — and manufactures antibodies in defence.

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PRODUCTION BY COUNTRY AND
INGREDIENT CATEGORY

MILK AND WHEY PROTEIN
HYDROLYSATE
CONSUMPTION BY COUNTRY AND
FOOD SEGMENT

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FOOD COMPANY PROFILES
DETAILING THEIR EXPECTATIONS
TOWARDS
PRODUCT AND SERVICES

SUPPLIERS PROFILES AND
MARKET SHARES

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CLINICAL NUTRITION

Detailed interview

Fresenius Kabi
Novartis

General interview

Mead Johnson
Abbott Nutritional

INFANT NUTRITION

Detailed interview

Mead Johnson
Friesland
Humana
Numico
Bledina
Sodilac
Nestlé
Valio
Meiji

General interview

Abbott Nutritional
Hipp-werke
Morinaga
Hochdorf
Farley's
Lyempf
Puleva
Wyeth
Star

SPORTS NUTRITION

Detailed interview

Joe Weider
MLC
Inkc

General interview

Lab Equilibre att
Nutrition & santé
Robert schwarz
Pharma Sweet
Biodynamics
Best protein
Nutrisport
Gefa lab
Eurosop
Hedelab
Fenioux
Nutrinov
Sponser
Vitaphar
Twinlab
Insudiet
GSN
Reeb

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COMPLETE STUDY	<input type="checkbox"/> ALL SECTIONS	€ 3,990
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COMPANY _____

Name _____ Position _____

✉ _____

☎ _____ Date _____ Signature _____

