

# PreserFood™ Milk/Dairy



EXTENDING MILK AND DAIRY SHELF LIFE, NATURAL PROTECTION, NUTRITIONAL  
ENHANCEMENT AN A WHOLE WORLD OF BENEFITS FOR INDUSTRY AND CONSUMERS

# PreserFood is The Choice

PreserFood TM/Dairy is the exclusive and unique Milk/Dairy Formula and Product made under a proprietary system and method property of ND Pharma & Biotech designed for a natural shelf life extension, nutritional enhancement, ingredient' stabilization, taste improvement and food safety agent, (All-in-One). Our Best-Seller Product opens up to the producers, processors and consumers, a whole new world of possibilities within the milk and dairy industry, never reached before by a product of such nature and characteristics.



# A WHOLE NEW WORLD

## MAIN EFFECTS

1. SHELF LIFE EXTENSION
2. ANTI-MICROBIAL PROTECTION
3. NUTRITIONAL ENHANCEMENT
4. MILK & DAIRY PRODUCT'S INGREDIENT  
NATURAL STABILIZATION.
5. TASTE AND TEXTURE IMPROVEMENT
6. OPTIMIZATION OF OTHER  
TECHNOLOGIES UTILIZED,(HEATING,  
PASTERIZATION, MICROFILTRATION, DEEP-BED  
FILTERING , DOUBLE BACTERIA REMOVAL SEPARATION)
7. AN MORE, MUCH, MUCH MORE.

PRESERFOOD TM/ MILK & DAIRY IS...

...A WHOLE NEW WORLD TO DISCOVER!



PreserFood TM/Milk & Dairy, has demonstrated in test results, to be able to reach a full safety shelf life extension of milk and dairy products varying in function of dosage up to three times normal shelf life of certain products obtained by regular or standards methods and technologies broadly used.

Discover why Top Companies Worldwide within the industry sector are using PreserFood TM/Milk & Dairy to reach better results and offer to their customers and consumers the safest and better taste products available within the market , the highest levels of food quality and nutrition, and a hidden world of possibilities to discover, in terms of health benefits.

This is our compromise with people. This is why we work.

**STANDARDS OF SHELF LIFE (PASTEURIZED & HOMOGENEIZED COW MILK-FRESH)**  
**PRESEERFOOD TM/DAIRY ADDED PRIOR TO PASTEURIZATION**

CATEGORY	DOSAGE	STORAGE	NORMAL SHELF LIFE	PRESEERFOOD SHELF LIFE
<b>Pasteurized Cow Milk</b>	0,4 GR/LIT	NO AIR Standard Filling Line	10 DAYS	24 DAYS
<b>Pasteurized Cow Milk</b>	0,8 GR/LIT	NO AIR SFL & close System Sterile Air Above FE	12-14 DAYS	32 DAYS
<b>Ultra-Clean Pasteurized Cow Milk</b>	1.0 GR/LIT	NO AIR SFL & close System Sterile Air Above FE	21 DAYS	39 DAYS
<b>TOTALLY ASEPTIC/ STERILE VALVES/PAST - STERILE TANKS</b>	1,5 GR/LIT	TOTALLY ASEPTIC	30 DAYS	49 DAYS
				Standard Packaging Technology



# SIGNIFICANT BENEFITS TO MILK AND DAIRY INDUSTRY

Over all different demonstrated benefits of PreserFood TM/ Milk & Dairy Formula the gaining of such amount of extra days of shelf life for milk and dairy products is representing a significant difference for companies. This increasing product's life with guaranteed food safety is opening new opportunities to the marketing of milk and milk derived products oriented to consumers, that are demanding quality and safety every day.

The E.S.L. (EXTENDING SHELF LIFE) Concept is an imprecise term that most companies are using to refer to certain solutions that extend the shelf life of dairy products beyond pasteurised levels. Our company has re-invented the concept. PreserFood TM/ Dairy has no competitors at all. Unrivalled and unbeatable, our product is a reference for producers and processors, gathering confidence worldwide.



PRESERFOOD TM/ MILK & DAIRY FORMULA is leading the natural solutions market of milk and dairy (milk derived) products and it's being applicable in all kinds of processed and elaborated ones from white milk, flavoured milk, fortified, enriched, fermented products, cream, dairy desserts, soy-drinks, vegetable derived milks, ice tea, coffee, milkshakes, yogourth, fruit combos, fruit milkshakes, ice-cream, yogourth ice-cream, etc. etc.

We encourage, producers and processors as well as other industry operators to promote hygiene over any other concept. PreserFood Tm is not designed for substitution and/or protection of dairy products when poor hygiene or deficient practices are present. Moreover, we consider as primary, to investigate what kind of industry is using our products in order to avoid some operators, undesirable or sub-standard to get a backup to their practices on the grounds that they're using our development and products. In addition to good maintenance of equipment and acceptable or good manufacturing practices, we provide an extra quality standard and premium or ultra-premium capacity of upgrading certain products if PreserFood TM/ Milk & Dairy is added to the existing formulas of such certain products.

It's a matter of fact that all our clients are brading their own marketing spectrum.

Success is served!



### **PreserFood TM/Milk & Dairy Formula**

Is a clean label product regulated under Regulation CE 1925/2006 and  
Regulation CE 1169/2011

In certain dosage also under Regulation CE 1924/2006\*

\*(Functional & Nutritional Claims)

There is a possibility of order special formulas for special nutritional enhancement and stabilization of certain products (specials, hospital nutrition, PARNUTS, Sports Nutrition, etc.).

Ask today for S·A·F·E· Ingredients  
(Special Adapted Formulas Encoding)



# OUR WORLD OF BENEFITS

1. Strengthening and augmentation of milk production chain.
2. Augmentation of milk and dairy product's food safety, especially when unstable freeze chain are present and whenever variable conditions and or/ unexpected incidences appear (developing countries, poor and deficient storage conditions, isothermal group disruption of supply, etc.).
3. Specifically to the cheese industry, when the farm and farm conditions of cleaning and other surrounding to the milk extraction are far from standards. Helpful when unexpected and uncontrolled issues due to inexperience or any other fact rely close to endanger the production and stocks.
4. Added after extraction, acts as an important stabilizer preventing also bacterial proliferation reducing presence within the days after up to an 80%, so the quality of raw milk to process is improved in comparison with the raw milk without product.
5. When recollection of milk is made from different sources, it acts as quality equiparator, especially over the organoleptic and flavour aspects of the material. (fatty rancidity, bittering, undesirable flavours, lipid peroxidation, micro-condensation, water fraction separation, microencapsulation, disaggregation of components, appearing and decomposition protein-protease, bio-film formation, etc.
6. Improvement and avoidance of visual milk deterioration, flavour and aroma's loosening of capacity, specifically those with a number of volatile elements and tendency to transfer it.
7. Effects on milk and milk-derived product's textures and final conformation and texturisation as well as minoring certain changes that tend to appear after heating and other certain processing systems use.
8. It helps also to minor the effect of other processing systems/methods on the milk and dairy products, especially de-creaming, high temp-time pasteurization, UHT, double membrane bacterial removal, as well as other affected by acidity development, bi-carbonatation, chlorination, viscosity and filtration.



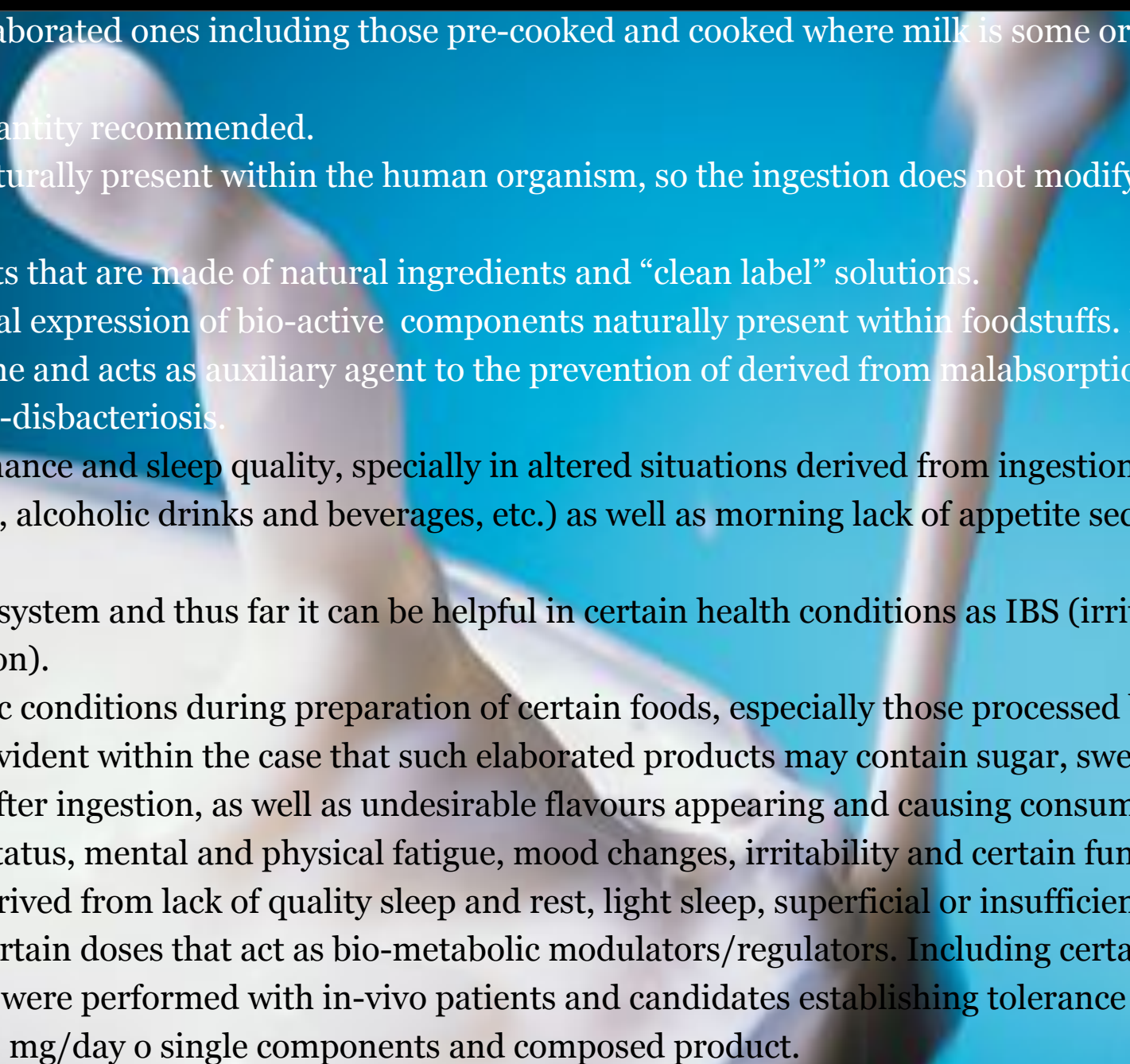
9. Preventive effects over contamination and the development of certain moulds, yeasts derived from residuals of manipulation, tubes, tanks and other transportations systems.
10. Limitation of physical-chemical properties of milk, pre- and post- operational changes.
11. Negative test to presence of bacteria inhibitors within milk.
12. Negative test to the appearing of chemical substances and organopreparates.
13. Prevent thermal-resistant proteolytic bacteria appearing.
14. Prevent from post pasteurization subproduct's formations as well as protein degradation and spoilage.
15. Stabilize other milk added nutrients as vitamins, minerals fatty acids (Omega 3 up to 6 months stability without rancidity flavor and nutritional profile decreasing curve).
16. In dependence of dosage it's able to prevent casein aggrupation formations and aggregate particles (oxidative fats and certain others).
17. Improvement of germicidal effect of thermic treatments reducing defensive capacity of microorganisms and augmenting the potential membrane differential, making thus far bacteria more sensible to temperature and reducing defensive capacity making those more sensible to temperature.
18. Improves heat and cold transmission speed within fluids, acting the mineral salts contained within the products as gelificant cations, so it both reduces freeze temperature and at same time providing an augmentation of the product to the thermal pasteurization temperature, prolonging the effect of temperature over foodstuffs, as well as it's sustainable in terms of energy saving and optimization of production times.
19. Improving performance at storage temperature, (sustainable energy saving systematic).





20. Prevents the contamination and bio-accumulation within the industrial cooling systems and contact thermal processing.
21. It has antifoam effect during mandatory agitation periods and it squeezes cooling also.
22. As pH stabilizer, it reduces the degradation of certain envelopes, cans and other storage and manipulation systems even those derived from bad functioning of closing and sealing systems broadly used within the industry.
23. Increase performance and utility of premises and deposits containing milk raw materials, reducing both the amount and frequency of production interruptions secondary to cleaning and disinfection needs.
24. Reduction lactic acid and acidifying sub-products even in stress episodes of raw material and non-optimal storage.
25. Offer protection against full and spontaneous disruptions of cold chain, giving full protection up to 24 hours at maximum of 30°C.
26. Reduction of microbial multiply log. from minimal doses starting at 0.5 gr/ltr up to 78 cfu's /at 14 days timing-test.
27. Improves and elevates the nutritional profile of elaborates and milk-derived products as well as it's energetic and caloric capacity without a sugar overcharge, especially those considered "bad sugar", intensity or potentially harmful ones, making products more admissible for certain groups of population, (diabetics, insulin-resistant diabetics, etc.). Incorporation of this product even as a sweetener does not increase the pancreatic digestive-metabolic reaction, so therefore its ingestion does not need correction measures and thus far it can be consumed by all kinds of population.
28. Through some of its components (individual) it has recognized capacity of regulation and restoring of sympathetic and parasympathetic nervous systems improving mood status, easing sleep and reducing oxidative stress and cell stress impact within our organism.



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29. Substitution of certain spoilage prevention substances within cheese and elaborated products, (especially certain chem-tox).
  30. Improvement of elasticity of raw cheese up to a 47% in comparison to other raw cheese without product addition.
  31. Improvement of result expressed in terms of reduction (bacteria/oxygen consumption) Reductase-Synthetase Reactivity.
  32. Improvement of density tests within raw materials and elaborates (lactodensitometry)
  33. Ingestion of 0.1 gr/day of principal component has shown improvement of memory and attention capacity (*File s.E. et al. Journal of Clinical Psycopharmacology, US 1999, vol.19, N°6, pp.506-512*) in a totally natura way.
  34. Anti-bacterial function within foods and drinks (JP-B2-72853).
  35. Improvement of functional ingredients added and/or present within elaborates. (Reducing the alterations on brain functioning derived from probiotics, etc.).
  36. Correct to use in any type of foods and elaborated ones including those pre-cooked and cooked where milk is some or part of the final product.
  37. No daily maximum ingestion amount/quantity recommended.
  38. Individual components of product are naturally present within the human organism, so the ingestion does not modify inner body levels of such components.
  39. It pertains to a new generation of products that are made of natural ingredients and “clean label” solutions.
  40. Improvement of absorption and functional expression of bio-active components naturally present within foodstuffs. It improves the absorption of nutrients within small intestine and acts as auxiliary agent to the prevention of derived from malabsorption syndromes and those secondary to fermentative disbiosis-disbacteriosis.
  41. Improving of physical and mental perfomance and sleep quality, specially in altered situations derived from ingestion of certain foods containing irritants-excitant (caffeine, teaine, alcoholic drinks and beverages, etc.) as well as morning lack of appetite secondary to physical and mental stress.
  42. It has tonic effects on vegetative nervous system and thus far it can be helpful in certain health conditions as IBS (irritable Bowel syndrome) and CAC (Chronic Atonic Constipation).
  43. It prevents from reduction of organoleptic conditions during preparation of certain foods, especially those processed by high pressure and/or temperature. This is specifically evident within the case that such elaborated products may contain sugar, sweeteners and certain other substances reacting by hydrolisys after ingestion, as well as undesirable flavours appearing and causing consumer's rejection.
  44. Improves somnolence and day lethargy status, mental and physical fatigue, mood changes, irritability and certain functional imbalances as tensional headache, muscle tension derived from lack of quality sleep and rest, light sleep, superficial or insufficient. (Based on individual components action and limited to certain doses that act as bio-metabolic modulators/regulators. Including certain cases of dismetabolism disorders). These studies and test were performed with in-vivo patients and candidates establishing tolerance limits and frecueny of ingestion between 0.7 mg/day up to 35 mg/day o single components and composed product.



## PRESERFOOD TM/ DAIRY

Within the recommended dosis, PRESERFOOD TM/DAIRY develop it´s anti-bacterial and bio-preservation potential without the inconveniences of chemical products and regular preservatives, bacterial growth inhibitors and other, usually not permitted within milk.

PRESERFOOD TM/DAIRY does not modify the technology of milk, it´s processing and its organoleptic qualities, neither visual, odor, aspect, etc, so milk and milk-derived products, conserve aspect and characteristics, with an improvement of natural attractive in terms of flavor, texture and the avoidance of undesirable elements affecting such.

PRESERFOOD TM/DAIRY is a composition made from natural ingredients, free from OMG´s and allergenic substances. Single addition of PRESERFOOD TM/DAIRY even at home, prior to serving, improves significantly natural flavour of milk and milk derived products. In yogourth, milkshakes and other preparation, PRESERFOOD TM/DAIRY reinforces the aromas and flavours incorporated to original formula, giving a natural texture and impressive mouth-swallow that will remain within memory of consumers, acting as natural attractor to the brands and products that incorporate it.

PRESERFOO TM7DAIRY creates a natural pass-thru the chemical and mechanical receptors of tongue and papillary sensations that will transform the ingestion of a product into a world of experiences for consumers, especilaly kids, that for sure will impact in the sale´s numbers of products that incorporate it, expressed this in terms of consumer´s preferences.\* (*Field test of clients brand shown an increase in sales of up to 3 times more in comparison with older formulas commercialized without the product in*).

PRESERFOOD TM/DAIRY protects milk and milk-derived products even in case of an eventual disruption of cold conservative chain, or loosening of ideal con-servational and transport conditions from raw material to elaborated products, minimizing risk, looses and waste of products, incidences and reclamations from clients and consumers.



*Talking about food?*

*THE NATURAL SOLUTION IS*

iPRESERFOOD!



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MILK

IS CREATED BY NATURE

SO LET'S GIVE IT  
NATURAL PROTECTION

PRESER FOOD™/DAIRY

\*1 WORLDWIDE TOXIC-FREE SHELF-LIFE EXTENSION, ANTI-MICROBIAL PROTECTION, NUTRITIONAL ENHANCEMENT  
AND FLAVOR MAINTENANCE INNOVATION FOR MILK AND MILK-DERIVED (DAIRY) PRODUCTS.