

An expanded line to expand your success.

**E-C** Calcium Adsorbate

zinc, magnesium, potassium, and sodium ascorbate

Calcium Adsorbate blend for animals

Chewable Grade

Effervescent Grade

Multi Vitamin Grade

Beverage Grade

Topical Concentrate

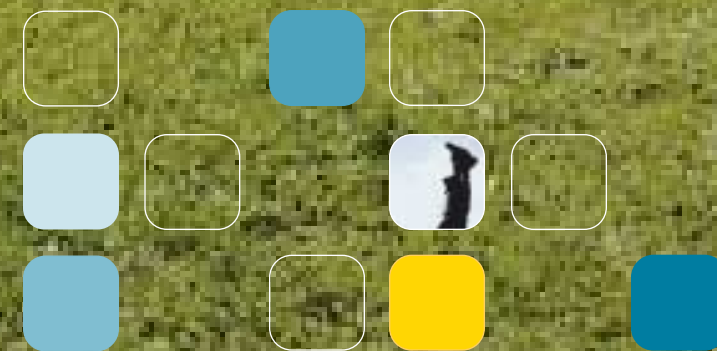
Dental Concentrate

Palmettx 85-90

**Inter-Cal**  
NUTRACEUTICALS

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A new perspective on nutrition.

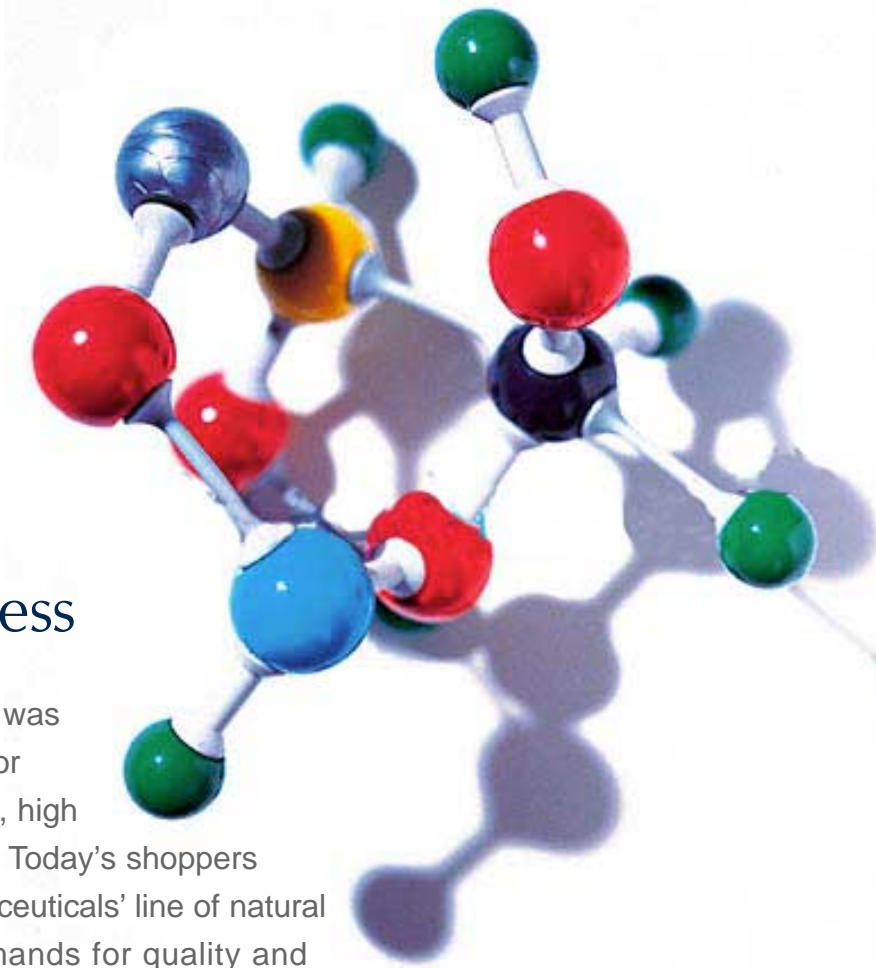


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The next generation of nutrition.

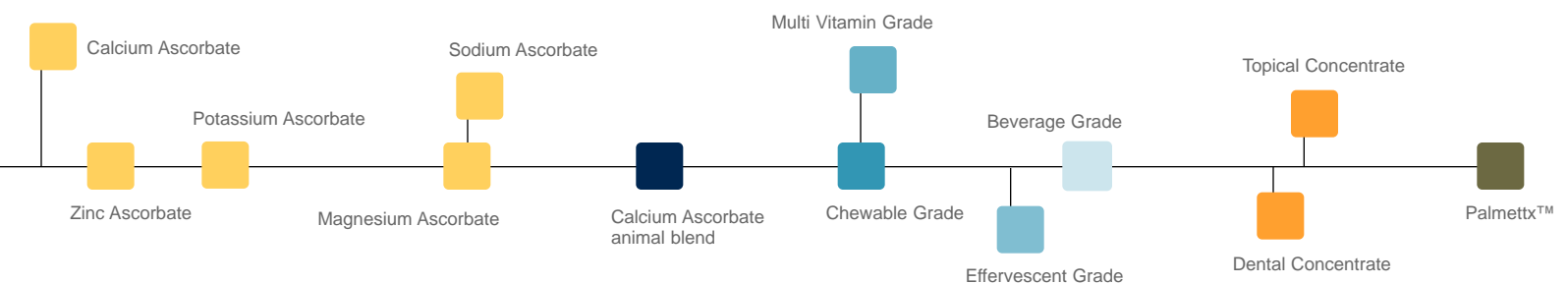
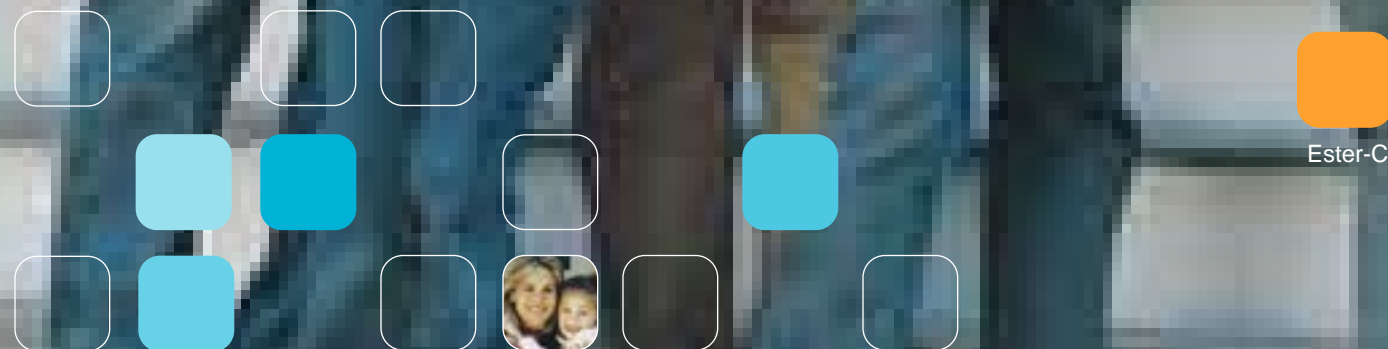


## An Ingredient In Your Success

Once, formulating with natural ingredients was enough. Then consumers began looking for natural ingredients that were standardized, high quality, researched, and based in science. Today's shoppers want value-added benefits. Inter-Cal Nutraceuticals' line of natural ingredients satisfies the consumers demands for quality and science and offers you innovative — even patented — nutritional ingredients that differentiate your formulations and sets your company apart.

### Not Just A Vitamin...A Brand

As markets become more competitive and consumers become more demanding, manufacturers must work harder to build and secure their competitive advantage. Since 1982, Inter-Cal, has not just manufactured unique ingredients with specific, tangible benefits but has also aggressively marketed these ingredients, creating a memorable value-added brand that consumers demand. In fact, Ester-C® is the only patented, branded form of vitamin C recognized by health conscious consumers all over the world.





## The importance of C

**Vitamin C plays a crucial role in health. It is essential to metabolic function, cell health and immune system well-being.**

It is a premier water-soluble antioxidant that serves to neutralize free radicals that damage genes, mutate cells and reduce biological efficiencies. Vitamin C participates in over 300 biochemical reactions in the body. Boosting intake of this vitamin has a powerful and positive effect on health.

New evidence is accumulating that shows that vitamin C supports cardiovascular and respiratory function, cognition, bone development and mineralization, vision and lower risk of stress-related diseases.

Unfortunately, the human body cannot manufacture vitamin C and it thus must be obtained in the diet. Most people realize that they can't possibly eat enough fruits and vegetables to optimize their health and vitality, and so millions complement their diet with supplemental vitamin C. But only Inter-Cal's Ester-C is a form of vitamin C that is powerful and different.

## C the difference

Ester-C is a revolutionary yet natural vitamin C that is readily absorbed by the body cells. Its unique cellular actions are due to vitamin C metabolites that work to maximize cellular utilization of vitamin C. Plus, Ester-C is non-acidic and tends to be less irritating, even at high doses.

The manufacturing of Ester-C is carried out at Inter-Cal's plant in Prescott, Arizona, USA. All batches are manufactured in compliance with US Food and Drug Administration Good Manufacturing Practices, Title 21 Code of Federal Regulations 110 and National Foods Association (NNFA) Good Manufacturing Practices.

### A Breakthrough In Vitamin C:

- Patent protected
- Efficiently Absorbed
- Natural, standardized, and pure
- Manufactured without chemicals
- Non-acidic
- Allergen free
- No animal products
- GMO-free
- Kosher certified





# Ester-C family of products



Our Core Product:



**E-C**

**Ester-C Calcium Ascorbate**  
(1100.A, 1100.B)

**Ester-C Calcium Ascorbate (1100.A, 1100.B)** an advanced yet

natural form of vitamin C that allows body cells to absorb and retain high levels of vitamin C. It is a fully reacted compound of calcium ascorbate and calcium threonate (a vitamin C metabolite) with properties distinctly different from ordinary ascorbic acid. It is tan in color, non-acidic (pH 6.5 (0.6) and available as a granular powder (1100.A) for use in tablets and powders as well as a fine powder (1100.B) for use in capsules.

**Applications:** Perfect for human supplements, providing added value for health conscious consumers seeking the most from vitamin C. Examples: standalone Ester-C, and combination supplements with function-specific ingredients such as Echinachia, Goldenseal, or vitamin E.



# Ester-C family of products

## Specialty grades:



**Ester-C Chewable Grade**  
(5100.A)

**Ester-C Chewable Grade (5100.A)** is a 40/60 blend of Ester-C calcium ascorbate and USP sodium ascorbate. It contains natural vitamin C metabolites, and is absorbed easily, light tan in color, and has a Ph of 6.5.

**Application:** Ideal for chewables, lozenges, and food products. It is a good choice for children's chewables, helping to prevent tooth enamel erosion which can be caused by ordinary, acidic vitamin C.



**Ester-C Effervescent Grade**  
(1350.A)

**Ester-C Effervescent Grade (1350.A)** is a blend of Ester-C calcium ascorbate, USP sodium

ascorbate, vitamin C metabolites and ascorbic acid. It is light tan in color and has a Ph of 4.5.

**Application:** Perfect for "fizzy" products, helping to distinguish the product from competitors. When combined with liquids, the reactive minerals (calcium carbonate or sodium bicarbonate) produce a bubbly effervescence.



**Ester-C Multi Vitamin Grade**  
(1320.A)

**Ester-C Multi Vitamin Grade (1320.A)** is a special blend of USP calcium ascorbate and

Ester-C calcium ascorbate. It is Ph neutral, tan in color, and contains natural vitamin C metabolitesylonite.

**Applications:** Designed for use in multivitamins, including joint, vision, immune system, and cardiovascular formulations. Best used when Ester-C does not exceed 60 percent of active ingredients.



**Note:**

- a. Each product must contain a "minimum" of two additional principal formula components, excluding flavonoids, rose hips and acerola.
- b. Principal formula components are defined as, "vitamins, minerals, herbals (e.g., garlic, ginger, ginseng), specialty ingredients (e.g., glucosamine, chondroitin sulfate, CoQ10) or trace elements.
- c. Vitamin C from Ester-C Ascorbate may not exceed a total of 60% of active ingredients in the formula.
- d. Formulas cannot include any other forms of vitamin C such as ascorbic acid or salts of ascorbic acid, e.g., calcium ascorbate.

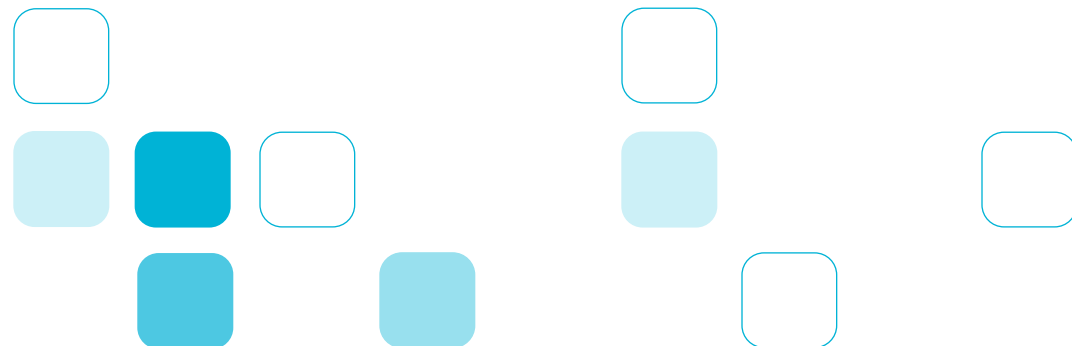


**Ester-C Beverage Grade**  
(1300.A)

**Ester-C Beverage Grade (1300.A)** is a form of Ester-C calcium ascorbate that has a

granule size that dissolves and disperses quickly in liquids. It is tan in color, Ph neutral, and contains vitamin C metabolitesylonite.

**Applications:** Use it to add value to your powdered drink mixes, sports drinks, ready-to-drink beverages, dry tea, coffee, and other beverages.





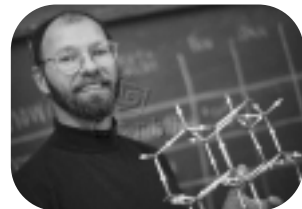
# Ester-C family of products

## Mineral specific formulas:

**Ester-C Zinc, Magnesium, Potassium, and Sodium Ascorbates** are quickly becoming top ingredients in the nutritional industry. It's easy to see why. They are unique blends of mineral ascorbates and vitamin C metabolites that work together to maximize cellular uptake and provide specific essential minerals. These fully reacted compounds are light tan in color and non-acidic (pH range of NLT 5.0 to 7.9 (0.8)).

**Applications:** These distinctive blends are perfect for function-specific supplements that require a certain mineral. For example: use calcium gluconate in throat lozenges, or in stress or performance formulas requiring high magnesium levels.

These distinctive blends are perfect for function-specific supplements that require a mineral. For example:



**MG**

**Magnesium Ascorbate (1110.A)** is important in the production and transportation of energy. It is involved in the synthesis of protein and the functioning of enzymes in the body.

**K**

**Potassium Ascorbate (1115.A)** helps maintain acid-base and osmotic balance, and serves as a co-factor in several enzyme systems. It is one of the major electrolytes in the body.

**NA**

**Sodium Ascorbate (1120.A)** enables transition of nerve impulses, operation of muscles, and function of the pineal gland. It also helps regulate acid and base qualities of body fluids.

**ZN**

**Zinc Ascorbate (1125.A)** can help with the synthesis of DNA, RNA, proteins, insulin, and sperm. Zinc bolsters the immune system, healing, and body tissue growth.

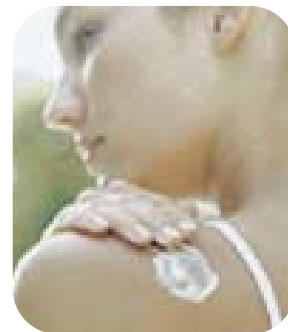
## Topical Grade:



**Ester-C Topical Concentrate (3400.A)**

**Ester-C Topical Concentrate (3400.A)** is a remarkably stable, natural solution of Ester-C sodium ascorbate in a polyglycol liquid concentrate. All ingredients are USP/FCC or equivalent. Does not contain chemically reacted fatty acids or phosphate esters. Its long shelf life, proven dermal penetration, neutral pH, and natural composition provide what consumers demand of high quality, natural personal care products.

**Applications:** Formulated for use in cosmetics and other topical formulas. It is ideal for above-the-neck beauty care lotions, gels and creams.



## Dental Grade:



**Ester-C Dental Concentrate (3500.A)**

**Ester-C Dental Concentrate (3500.A)** is specifically formulated for use in oral care products. It is a stable, natural solution of Ester-C calcium ascorbate in a polyglycol (polyol) liquid. It is pH neutral and readily disperses in liquid. It does not contain fatty acids or phosphate esters.

**Applications:** Ideal for dental products, including toothpastes, gels, and mouthwashes. Unlike other forms of vitamin C, it is stable and does not irritate gum tissue or erode tooth enamel.



# Ester-C family of products

## Calcium Asorbate Blend for Animals:



**Ester-C Ascorbate Blend for animal (2400.A)**

**Ester-C Calcium Ascorbate Blend for Animals (2400.A)** is a mixture of vitamin C

metabolites and ascorbate salts of calcium, magnesium, zinc and manganese. It is efficiently absorbed for maximum retention. It is light tan in color, non-acidic (Ph 6.4(0.5), odorless, and well tolerated by animals.

**Applications:** Use in animal foods, supplements, and treats. Ideally Suited for function-specific supplements such as glucosamine/chondroitin and Ester-C formulations, multi-antioxidant formulas, and standalone value-added vitamin C for animals.

**Note:**

Although dogs, cats and horses, unlike humans, are capable of synthesizing their own endogenous vitamin C, many veterinarians now recognize that supplemental vitamin C provides additional support to joint, respiratory and immune systems.



## Saw Palmetto:

### An Important Nutrient For Men

Saw Palmetto (*Serenoa repens*) addresses a problem suffered by nearly every man at some point in life: enlarged prostate gland. The effects of Saw Palmetto are measured by reduction of glandular swelling and increased urinary flow. However, its standardization has typically been compromised by imprecise and even hazardous extraction methods.

#### Palmettx™ - The Key To Prostate Health

Palmettx™ is a solvent-free, standardized extract of hand-harvested Saw Palmetto fruit grown domestically and extracted using technology that allows capture of high levels of active phytosterols. Inter-Cal's proprietary PureXtrax'supercritical carbon dioxide (CO2) fluid bioprocessing method assures the highest product integrity, excellent storage stability and virtual elimination of all enzymes, microorganisms, viruses, molds and spores without chemicals, toxic solvents or excessive heat. PureXtrax is non-hazardous to the environment.



**Palmettx85-90 (7000.A)**

**Palmettx 85-90 (7000.A)** is a solvent-free standardized extract of Saw Palmetto fruit manufactured by a

highly advanced CO2 extraction process, providing a high concentration of sitosterols and phytosterols. The natural antioxidant rosemary is added to insure stability. Cultivating, hand-harvesting, drying, and bioprocessing are closely controlled thanks to Inter-Cal's vertical integration. Rigorous analytical testing ensures complete fatty acid and sterol identification, and eliminates adulteration.

**Applications:** Designed for use in soft gelatin capsules. Can be combined with other natural ingredients, such as pygeum, pumpkin seed oil, or lycopene to further promote prostate health.





# Inter-Cal Nutraceuticals

The number of health conscious consumers is increasing. Companies that promote the benefits of value-added, branded ingredients will break away from the pack and guide consumers toward intelligent supplement use. Inter-Cal is dedicated to helping you have products that are quickly recognized and appreciated for their enhanced value.

Since 1982 Inter-Cal has nurtured and built its brand equity in the minds of health conscious consumers. The company was one of the first to develop a natural ingredient with benefits based on science and research. Long before standardization became routine, Inter-Cal's Quality Control Team evaluated and quantitated every lot of product prior to shipping. Even though the health care industry is undergoing rapid and sustained changes driven by new science and ever-changing consumer needs, the Ester-C brand name will continue to add value to your products and demonstrate that you want the best for your customers.

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