

## A BRIEF ANALYTICAL DESCRIPTION OF CALPHONITE<sup>™</sup>

Calphonite<sup>TM</sup> is a special blend of bentonite, dicalcium phosphate, manganese and magnesium. It is intended for use as a calcium supplement supported by phosphorus, manganese, and magnesium.

Our patented process produces several important chemical and physical changes in the raw materials used. For example: the bentonite takes on a complete negative charge, due to phosphate ionization. In fact, a new form of bentonite is produced. Dr. R.T. Martin (Massachusetts Institute of Technology) refers to this new form of bentonite as phosphated bentonite.

The calcium crystals used as raw material are greatly reduced in particle size, thus increasing the solubility range of the solid phase. The calcium in Calphonite<sup>TM</sup> is approximately 50% more soluble than bone meal or regular dicalcium phosphate. In addition to the increased solubility range, a definite portion of the calcium goes into complete solution and is, therefore, immediately available.

To further enhance this availability, the finished product becomes acidic with a pH of 4.6. This is important because normal calcium metabolism depends on acidic stomach conditions. Calcium, in the usual form, is alkaline. Heavy doses of calcium may dilute the acid medium of the stomach and retard normal acid digestion. A normal hydrochloric acid content of the stomach is essential for mineral and protein digestion.

The combination of calcium and HCl forms calcium chloride, one of the more influential forms of calcium in the body. It is interesting to note that many chronic ailments may cause a lack of HCl and that a lack of HCl may influence the ailment. For example: an osteoarthritic shows a lack of HCl; a rheumatoid arthritic has no HCl.

Of further interest is the fact that with this process we supply as much immediately available calcium in 20% of the R.D.A., as would be available if we were to use a full 100% R.D.A. of the same calcium similarly processed. Calcium in large amounts tends to constipate and, if it does not go into solution, it remains unavailable and adds to the problem of elimination. If heavy doses seem indicated, it appears more logical to increase the amounts of available calcium rather than to ingest quantities of basically unavailable material.

As previously mentioned, when we speak of immediately available calcium, we refer to the calcium that is already in solution. The solubility range of a formulation, or the amount already in solution, is the only part of the formula that is basic; for we have no guarantee that the crystalline structures taken in the usual form will dissolve to any appreciable extent. Once we ingest the material, we must rely upon the normal or abnormal metabolic processes.

What makes Calphonite<sup>TM</sup> the calcium of choice? It has been scientifically designed to meet basic metabolic requirements as follows:

- 1 . CALPHONITE<sup>TM</sup> is a LIQUID calcium and phosphorus supplement intended for use as a source of calcium and phosphorus.
- CALPHONITE<sup>TM</sup> is an immediately available source of calcium and phosphorus in partial solution. A 160 mg dose (suggested daily ration) of CALPHONITE<sup>TM</sup> supplies as much available calcium as does 800 mg of elemental calcium derived from dicalcium phosphate dihydrate similarly processed.
- 3. CALPHONITE<sup>TM</sup> is a well buffered acid suspension. The pH is 4.6.

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- 4. The immediately available calcium and phosphorus in CALPHONITE<sup>TM</sup> can be absorbed without requiring or materially affecting the acid content of the stomach.
- Radioisotope studies on rats indicate that the rate of uptake and the volume of absorption of calcium from CALPHONITE<sup>TM</sup> is considerably increased over that of dicalcium phosphate dihydrate.
- 6. CALPHONITE<sup>TM</sup> contains a new form of adsorbent. The new term for this material is PHOSPHATED montmorillonite.
- 7. CALPHONITE<sup>TM</sup> does not produce the usual constipation noted with calcium supplements.
- CALPHONITE<sup>TM</sup> contains a high ration of phosphorus in solution. Increased phosphate administration is believed to be effective in the prevention and control of dental caries in animal studies. (Drs. R.S. Harris and Abraham E. Nisel, Journal of Dental Research, St. Louis. Vol. 38, No. 6 - pages 1142-1147. Nov. - Dec. 1959).
- CALPHONITE<sup>TM</sup> presents a marked change in the crystalline structure of the solid phase. Calcium crystals are deeply fissured and reduced in size - thus increasing the rate and extent of solubility of the solid phase.
- 10. CALPHONITE<sup>TM</sup> is a unique, scientifically formulated, time tested, effective mean s of supplementing calcium and phosphorus.

## SUGGESTED RECOMMENDATIONS:

One tablespoon of CALPHONITE<sup>TM</sup> with, or directly after each meal - three times a day. Because vitamin D is necessary for calcium absorption, consider supplementing your diet with a natural vitamin D source, such as Sonne's #5 Cod Liver Oil.