

## Inside Watson

At Watson, we have the specialized facilities, preparation & processing equipment and raw material expertise, as well as the analytical instrumentation required to manufacture one of the widest ranges of speciality ingredients available for the dietary supplement, pharmaceutical and nutritional markets.

- **Facilities Feature:**

Hepa Filtration, Humidity/Temperature Controlled Rooms, Pharmaceutical Grade Water Filtration System, Pilot Labs.

- **Equipment List**

**Includes:** Micronizing Bead Mills, Cryogenic Fitzmills, Oscillating Granulators, Sifters, Reactors, Rotary Dryers, Belt Dryers, Double Drum Dryers, Mix Tanks, Jacketed Liquefiers, Homogenizers, Top Spray Coaters, Wurster Coaters, Accela Cota Film Coating Machine, Blenders from 1 kg to 5,000 kg.

- **Evaluation**

**Equipment Includes:** Tablet Disintegrators, Hardness Testers, Tablet Presses, Mesh Size Analyzers, Bulk Density Testers, Coating Integrity Evaluators.

- **Analytical**

**Instrumentation Includes:** HPLC, GPC, UV-VIS, ICP-EM, ICP-MS, AA, ELISA and Microwave Digestion & Drying.

"Your partner in enhancing human health and nutrition world wide."



### Watson's Nutritional & Pharmaceutical Product Lines

301 Heffernan Drive  
West Haven CT 06516 USA

Phone: (203)932-3000  
Fax: (203)932-8266

### Manufacturing capabilities include:

Vitamin/Mineral Premixes

Drum-to-Hopper Blends

High Shear, Fluid Bed and Hot Melt Granulation

Agglomeration

Micronizing

Instantizing

Micro-Encapsulation

Spray Drying

Tablet Coating

Toll Manufacturing

Vitamins • Minerals • Amino Acids • Fine Chemicals • Botanicals

# WATSON

Micro-Encapsulation  
Granulation/Agglomeration  
Instantizing  
Micronizing/Grinding



Pharmaceutical Ingredients Division  
&  
Nutritional Ingredients Division

For more  
Information:  
Call:  
1-800-388-3481



# Manufacturing Specialty Ingredient Systems



Contained in this brochure is an overview of the types of products manufactured by Watson in our state-of-the-art facilities in West Haven, Ct and Taylorville, Il. This is not a complete list. Watson also manufactures a wide range of custom products, as well as toll manufactured products. The Quality of all products is guaranteed by Watson's in-house analytical laboratory.



*Manufacturing vitamins, minerals, amino acids, botanicals, fatty acids, fine chemicals and OTC Pharmaceuticals in value added forms for the dietary supplement industry.*

### Micro-Encapsulations:

- Ascorbic Acid 50%, 60%
- Ascorbic Acid 97.5%
- Beta Carotene 1%
- Betaine 70%
- Caffeine 50%
- Choline Bitartrate 60%
- Copper Gluconate 50%
- Copper Sulfate 50%
- Cupric Oxide 50%
- D-Calcium Pantothenate 50%
- Ferrous Fumarate 60%
- Ferrous Sulfate 60%
- Folic Acid 25%
- Glucosamine 70%
- L-Arginine 70%
- L-Carnitine 70%
- L-Cysteine 70%
- Lecithin 70%
- Magnesium Oxide 40%
- Magnesium Oxide 60%
- Manganese Sulfate 50%
- Medium Chain Triglycerides 50%
- Niacinamide 33 %
- Potassium Chloride 70%
- Potassium Sulfate 50%

- Sodium Ascorbate 50%
- Thiamine Mononitrate (Vitamin B<sub>1</sub>33%)
- Reduced Iron 50%
- Riboflavin, Vitamin B<sub>2</sub> 25%, 33%
- Vitamin E 50%
- Vitamin E 50% CWS
- Zinc Gluconate 60%
- Zinc Oxide 50%

### Triturations:

- Trace Mineral Premix Trituration for Advanced & Senior Formulas
- Biotin 1% on DCP
- Boron Chelate 5%
- Chromium Chelate 0.6%
- Chromium Chloride 1%, 2%, 10%
- Chromium Citrate 2%
- Folic Acid 10% on Maltodextrin
- Folic Acid 10% on DCP
- Molybdenum Citrate 0.15%
- Nickelous Sulfate 1% (Nickle)
- Phytonadione, Vitamin K 1%
- Potassium Iodide 1%, 5%
- Selenium Chelate 0.35%
- Sodium Metasilicate 1% (Silicon)
- Sodium Metavanadate 1% (Vanadium)

- Sodium Molybdate 1% (Molybdenum)
- Sodium Selenite 1% (Selenium)
- Stannous Chloride 1% (Tin)
- Vitamin B<sub>12</sub> 0.1%, on Mannitol
- Vitamin B<sub>12</sub> 1% , on Mannitol
- Vitamin B<sub>12</sub> 0.1%, on DCP
- Vitamin B<sub>12</sub> 1% on DCP

### Directly Compressible Agglomerations:

- Ascorbic Acid 90% DC
- Ascorbic Acid 95% DC
- Ascorbic Acid 97% DC
- Calcium Carbonate 90% A
- Calcium Carbonate 90% S
- Calcium Sulfate 90% A
- Calcium Sulfate 90% S
- Ferrous Fumarate 90% A

- Ferrous Fumarate 90% S
- Fructose 95%
- Glucosamine HCL 95% DC
- Glucosamine Sulfate 95% DC
- L-Arginine 90% DC
- Magnesium Carbonate 90% S
- Vitamin B<sub>1</sub> 98%
- Vitamin B<sub>2</sub> 95%
- Niacinamide Ascorbate
- Vitamin B<sub>6</sub> 98%

### OTC Products:

- Calcium Polycarbophil DC
- Acetaminophen DC
- Guafenesin DC

### Super Disintegrants:

- Croscarmellose Sodium



**Drum-To-Hopper Blends:** No preprocessing required. Reduce your production costs, free up your equipment, prevent Q.C. delays and quality is assured by Watson's Certificate of Analysis. Pre-shipment samples can be arranged by customer request. Large lot sizes mean Watson can provide you with a minimal number of lots. Lot to lot variability is strictly controlled. Watson Drum-to-Hopper blends have excellent compression profiles and Watson's strict physical specifications ensure uniform particle size distribution, good flowability and high bulk density.

### **Benefits of Watson Agglomerations and Granulations:**

Highest Bulk Density, Free Flowing, Consistent Particle Size Distribution, Consistently Superior Compression Profile, Improved Tablet Characteristics, Minimum Yield Losses, Higher Productivity for Customer, Excellent tablet stability, Versatility in Formulation, High Carrying Capacity, Quality Controlled.

### **Benefits of Micro-Encapsulation:**

The benefits of micro-encapsulation of nutrients for use in directly compressible tablets include an improved compression profile, reduced "chalky" or "gritty" mouth feel in chewable tablets, taste masking and prevention of ingredient interactions, prevention of moisture pickup in hygroscopic ingredients, which causes softening of the tablets. Moreover, dry free flowing powders can be made from oils or liquids for ease of handling.