



Solutions Designed for You

Product & Process Innovation Center

Our Product and Process Innovation Center (PPIC), located at our St. Louis, Missouri site, houses bench scale to pilot scale development capabilities for all our technologies. Our team of Innovation and Development Scientists can provide development services and support to develop custom products to meet our customers' needs. Projects can range from simple technology transfer of an existing process to full multistage development of a new formulation. Our team provides support throughout the project from concept to launch in one of our manufacturing facilities.

Examples of our custom-designed solutions:

- ◆ **Microencapsulation:** Creation of a custom taste-masked product for chewable OTC market. API was a strongly bitter and medicinal taste powder.
- ◆ **Granulation:** Custom granulated product to provide direct compressibility for an OTC laxative product.
- ◆ **Spray Drying:** Created high volume mineral products for high active loading and direct compressibility.
- ◆ **Finished Dosage:** Developed a chewable tablet formulation using our proprietary iron product with other vitamins. Our technology combination provided high absorbing iron with low GI side effects and improved shelf life of vitamins, all in a good tasting chewable tablet.

Our technologies include spray-drying, high shear granulations, microencapsulation, oral solid dosage forms, and iron-deficiency supplements. Contact us today to discuss how we can support your business goals by developing a high quality, high value product just for you.

Successful EU GMP Inspection

German regulatory authorities inspected our manufacturing site in Seymour, Indiana U.S. in August to support renewal of our EU GMP Certification. This was the first opportunity for an on-site audit with the authorities since the COVID-19 pandemic created significant scheduling delays for regulatory bodies globally.

The inspection went well, and we have submitted our follow up responses for any items noted during the audit. We expect to have our certificate renewed by the end of 2024. Our current certification is active through the end of 2024.

PRODUCT SPOTLIGHT

NEW EU Food-Grade Descote® Microencapsulated Vitamins

We now offer a new grade for three Descote® products that meet new EU regulations around organic impurities in mono- and diglycerides (E471).

- ◆ Descote® Zinc Oxide 50% Ultra E
- ◆ Descote® Ferrous Fumarate 60% Ultra E
- ◆ Descote® Manganese Oxide 40% Ultra E

These products use a new source of E471 compliant for use in food applications for adults & children over the age of 3 in the EU. Finished product specifications are the same as the standard grade.

Applications

- ◆ Dietary Supplements
- ◆ Effervescent Powders
- ◆ Functional Food Applications
- ◆ Solid Dose (tablets, chewable, and swallowable)

Benefits

- ◆ Barrier protection
- ◆ Sustains potency & flavor
- ◆ Free-flowing, fast-dispersing powder
- ◆ Masks unpleasant taste & smell
- ◆ Protects from color migration
- ◆ Smooth mouth-feel