



END-TO-END INHALATION SOLUTIONS

Seeking expertise to overcome your inhalation challenges?

Broad Capabilities From pre-formulation to commercialization, we have the capabilities, experience and expertise to assist you at any stage of development. These capabilities were developed with your needs in mind and have been successfully applied to all dosage forms.

- Pressurized metered-dose inhalers (pMDIs)
- Dry powder inhalers (DPIs)
- Nasal sprays (solutions/suspensions)
- Nebulizers and liquid inhalers

Integrated Services Our offerings can be tailored to meet your needs and expedite your product from concept and feasibility studies through all stages of the product life cycle, whether you are seeking a single service or a turn-key development option.

- Dosage form selection and technology assessment
- Pre-formulation and formulation services
- Analytical testing
- Clinical packaging trial supply
- Particle size reduction expertise with Catalent Micron Technologies
- Commercial-scale manufacturing and packaging

Expert Development For over 20 years, our deep expertise and reliable execution and capabilities have been applied to numerous product approvals resulting in reduced development time. We continually make significant investments in top scientific talent, technologies, resources and capacity to ensure superior results for your products.



DEVELOPMENT



DELIVERY



SUPPLY

Modern Manufacturing

Catalent offers flexible manufacturing solutions at scales suitable to reliably supply pre-clinical evaluation studies through to clinical studies and into the marketplace. Our inhalation-manufacturing operations have a track-record of regulatory excellence, and we routinely manufacture pMDIs, DPIs, and nasal formulations for clients around the globe.

- Pre-clinical, clinical, and commercial-scale manufacturing operations
- Automated and semi-automated filling operations for pMDI, DPI, solutions/suspensions for inhalation, and nasal products
- Low-humidity environment options to support moisture-sensitive materials
- Process-analytical technologies
- Supply chain and project management services.

Catalent Inhalation at Work

	CLIENT A
SITUATION	<ul style="list-style-type: none">· Agglomeration and loss of the API fine-particle mass for dry powder inhaler (DPI) was observed during storage caused by recrystallization of amorphous solids generated during milling.· Attempts to mitigate this problem by optimizing the formulation and milling processes were not successful.
SOLUTION	<ul style="list-style-type: none">· Optiform® API technologies were used to perform salt screening studies to identify an alternative salt.· Within 4 weeks, several novel candidate salts of the API were discovered and characterized. Detailed assessment including milling studies afforded the identification of a suitable salt that enabled the progression of a DPI formulation into clinical studies.

Bring us your compound, and we will help you formulate it and bring it to market.

more products.
better treatments.
reliably supplied.™

Discover more solutions at catalent.com/inhalation
GLOBAL + 1 888 SOLUTION (765-8846)
EU + 800 88 55 6178
solutions@catalent.com