ALMAC

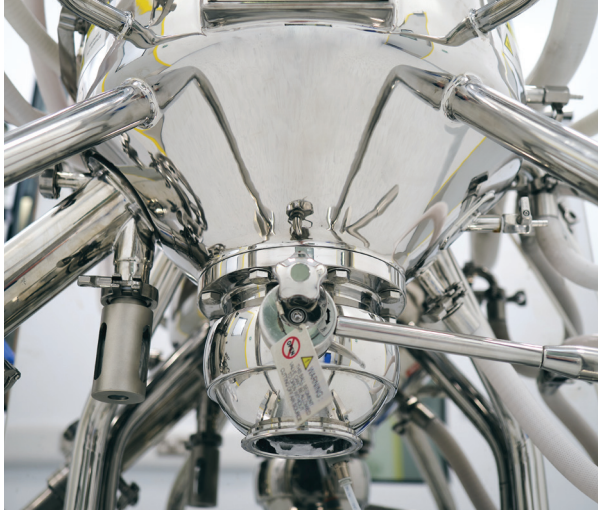
Partnering to Advance Human Health

Brochure

Bioavailability Enhancement Solutions

A seamless path to clinical success

Advanced technologies spanning pre-formulation to GMP manufacturing designed to enhance drug exposure



At Almac, we understand that enhancing bioavailability is critical to unlocking the full therapeutic potential of your drug product.

Unmatched Expertise. Proven Technology. Integrated Teams.

Our team of industry experts bring decades of experience in formulation science, development and manufacture of amorphous solids and spray drying. With deep scientific expertise, cutting-edge technology, and a collaborative mindset, we deliver tailored solutions that meet the unique needs of each client.

We invest heavily in training and operational excellence. Our operators undergo rigorous, hands-on training for each project, ensuring precision in handling complex solvent systems and polymer formulations.

This commitment to quality and safety gives our clients confidence in every batch.

Technology highlights:

- Buchi S300 for lab-scale development and GMP production
- GEA PSD-1 Spray Dryer for GMP-scale production
- Allied Pharma Vacuum Dryer for high-potency formulations
- CFS 1200 for liquid-in-capsule technologies

A seamless path to clinical success

Our integrated model means you benefit from seamless transitions between drug substance and drug product. This reduces risk, shortens timelines and simplifies project management.

Our facilities

- Multiple Grade D cGMP manufacturing suites
- Full on-site analytical support
- Spray drying for ASDs with downstream compression and coating
- High-potency handling with OEL levels down to 0.05 µg/m³
- Solvent recovery and safe disposal systems

Pre-formulation

- Full drug substance physicochemical characterisation
- Polymorph, salt and co-crystal screening
- Detailed solubility enhancing polymer and excipient screening
- Small scale prototype generation

Analytical testing

- Demonstration of precipitation inhibition
- Biorelevant solubility screening
- Full solid-state characterisation
- Analytical method development
- Stability studies and impurity tracking

Formulation and process development:

- Review excipient compatibility
- Develop advanced formulation- use of Design of Experiments (DoE) to develop and optimise the formulation
- Develop Spray Drying or Melt Extrusion Process - use of DoE to evaluate manufacturing process parameters
- Liquid Fill – Develop lipid-based (solid & semi-solid) formulations for encapsulation for improved solubility and absorption of poorly water-soluble drugs.

Drug product testing

- Particle size analysis
- XRPD
- Bulk density
- Dissolution
- Impurity analysis
- DSC/TGA
- Stability testing
- Shear cell and flowability testing

GMP manufacture

Our unified approach means we ensure processing knowledge gained throughout the development phase is effectively transferred to our expert manufacturing teams to guarantee batch release to the agreed specification.

Why Almac:

- Faster development timelines
- Flexible batch sizes from 2g to 20kg+
- Collaborative, science-driven approach
- Proven track record with clinical and market-ready products

Real Results.
Real Impact.

Partner with Almac to unlock the full potential of your drug product. Whether you're tackling solubility challenges or scaling up for GMP manufacture, our integrated bioavailability solutions are here to support your success.

almacgroup.com

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