



Resyca® PFSI™ Soft Mist Inhaler

An optimal solution for delivering delicate formulations

Soft Mist Inhalers (SMIs) are named for both the mechanism of aerosol generation and the qualities of the aerosol cloud. With low shear forces and no reliance on propellants, SMI devices can support the administration of delicate biological formulations to patients.



The PFSI™ Soft Mist Inhaler

The Resyca® Pre-Filled Syringe Inhaler (PFSI™) is a ready-to-use, patient-friendly platform that combines high-performance drug delivery with everyday convenience. Compact and pocket-sized, it ensures efficient delivery deep into the lungs, giving patients the therapy they need, when they need it. The purely mechanical inhalation device uses pre-filled syringes for precise dose delivery and a gentle spray principle, suitable for both biologics and small molecules.

Partnerships creating exceptional solutions

Combining the expertise of Bespak and the proprietary spray nozzle technology of Medspray, the Resyca PFSI is purely mechanical and sprays aqueous solution formulations by means of the Rayleigh spray principle. A multitude of micron-sized pores eject liquid jets, which break up into droplet trains and are entrained into the inhalation air flow of the patient. This produces a slow-moving aerosol cloud, resulting in a high lung dose (>50% of the metered dose).



The Resyca PFSI

The mechanical drive unit can be used multiple times. The glass syringe with integrated spray module is disposable.

Gentle on patients, formulations and the planet

Patient-friendly

- Pocket-sized, disposable and pen-shaped for easy transportation
- Purely mechanical, no batteries
- Built-in flow guidance to support consistent inhalation

High lung dose

- More than 50% of the metered dose ends up in the lung, resulting in efficient drug delivery and reduced waste
- More than half of that enters the deep lung, as proven in clinical studies based on scintigraphy and pharmacokinetics

Large volume per inhalation

- Up to 50 µL per actuation, which enables the delivery of milligrams of drug to the patient (Aerosol particle size distribution is available upon request*)

Low shear forces

- Gentle spray principle to prevent damaging fragile formulations

Glass pre-filled syringe format

- OMPI ALBA EZ FILL syringe with integrated spray module, developed with delicate biologic formulations in mind
- Glass container closure system to protect formulations

*Customer-specific formulations can be tested in our aerosol lab; on average, data is available within a few weeks.

Customisable

- Available in both reusable and disposable formats
- Spray and aerosol profiles can be optimised for specific formulations
- Modular design enables rapid adaptation to different therapies without compromising quality or performance

Environmentally friendly, small carbon footprint

- No propellants, no volatile organic compounds
- Aqueous formulation, which is pushed through the micro nozzle system
- Reloadable for multiple uses
- Recyclable at the end of life

Streamlined manufacture

- Scalable technology compatible with existing manufacturing infrastructure



Your breakthrough. Our capabilities. Ready when you are.
Let's shape the future of soft mist inhalation together.