

Product List

Hovione has developed a range of customized particle engineered APIs with superior powder properties and a suite of innovative, highly specialized Device Platforms that are able to address the challenges in your formulation development.

Inhalation

Particle Engineered/Customized APIs

Corticosteroids

PRODUCT	ROUTE OF ADMINISTRATIO	N		CAS NUMBER	CUSTOMIZED PARTICLE SIZE	REGULATORY STATUS
Fluticasone Furoate	O Inhalation	Nasal		397864-44-7	~	US DMF
Fluticasone Propionate	O Inhalation	Nasal	<u></u> Topical	80474-14-2	~	CEP, US DMF, JP DMF, CN DMF
Mometasone Furoate Anhydrous	O Inhalation	Nasal	<u></u> Topical	83919-23-7	~	CEP, US DMF, JP DMF
Mometasone Furoate Monohydrate	∂ Inhalation	Nasal		141646-00-6	~	CEP, US DMF, JP DMF, CN DMF

LABA/LAMA

PRODUCT	ROUTE OF ADMINISTRATION	CAS NUMBER	CUSTOMIZED PARTICLE SIZE	REGULATORY STATUS
Umeclidinium Bromide	O Inhalation	869113-09-7	~	DEV, TECH PACK
Vilanterol Trifenatate	Po Inhalation	503070-58-4	~	GMP, TECH PACK
Salmeterol Xinafoate	<u>OO</u> Inhalation	94749-08-3	~	CEP, US DMF

Formulation Services

- Carrier-based, composite and carrier-free formulation development
- Generic deformulation and formulation services
- Novel formulation development
- Spray Drying, Jet Milling and Wet Polishing particle engineering capabilities
- API particle customization to tailor formulation performance
- Dry powder inhalation drug product manufacturing:
 - High and low shear powder blending
 - Capsule, reservoir, and blister filling
- Biorelevant analytical formulation testing
- Integrated API, excipient, blending, device and analytical formulation capabilities

Device Platforms

DEVICE	ROUTE OF ADMINISTRATION	TYPE	DOSING	DOSE RANGE	APPLICATIONS
Sunriser®	00 Inhalation	Capsule	Multi-use	Up to 50mg	Asthma, COPD, Cystic Fibrosis and more
TwinCaps® DPI	Ø Inhalation	Reservoir	Single-use	Up to 2 x 30mg	Anti-virals, vaccines, rescue therapies and more
Large Dose DPIs	∂ Inhalation	Reservoir	Single-use	Up to 8 x 30mg	Antibiotics, biologics, anti-virals and more
PowdAir® DPI	(A) Inhalation	Capsule	Reusable	Up to 50mg	Asthma, COPD, Cystic Fibrosis and more
Papillon DPI	00 Inhalation	Blister	Reusable	Up to 50mg	Asthma, COPD, Cystic Fibrosis and more

- Available for integrated formulation-device development, licensing, supply and customization
- Active collaborations with device partners to bring the right dry powder inhalation device for every formulation





Contact our experts today to know how to integrate API, excipient, blending, device and analytical formulation capabilities.



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Security of supply

Hovione provides the peace of mind of a high-quality manufacturer who is a founding member of Rx-360 and has an unblemished regulatory track record.

Oral, Injectable, Topical and Ophthalmic

Antibiotics ROUTE OF ADMINISTRATION REGULATORY STATUS CUSTOMIZED PARTICLE SIZE n Oral 24390-14-5 **Doxycycline Hyclate** Injectable CEP, US DMF, JP DMF A Oral **Doxycycline Monohydrate** 17086-28-1 CEP. US DMF A Oral Injectable 10118-90-8 US DMF Minocycline Base CEP, US DMF, JP DMF, Minocycline Hydrochloride A Oral Injectable ↑ Topical 13614-98-7 Corticosteroids ROUTE OF CAS NUMBER ADMINISTRATION STATUS Ophthalmic Injectable Betamethasone Acetate 987-24-6 US DMF Ophthalmic Injectable 151-73-5 US DMF, JP DMF Betamethasone Disodium Phosphate **Halobetasol Propionate** ♦ Topical 66852-54-8 US DMF **Hydrocortisone Aceponate** Topical 74050-20-7 ASMF & VMF **Antiparasitic** CAS NUMBER ADMINISTRATION PARTICLE SIZE **STATUS** A Oral ↑ Topical 70288-86-7 CEP. US DMF Ivermectin Human Grade **Excipients** ROUTE OF ADMINISTRATION CAS NUMBER **DTPA (Pentetic Acid)** Injectable 67-43-6 GMP, TECH PACK • Custom high-purity, cGMP bio pharmaceutical excipients and bioprocessing chemicals • Dispersome®

Drug Delivery Expertise

- Solubility Enhancement Platforms:
 - ASD-HIPROS, Dispersome®
- Sustained Release
- Ophthalmic
- Inhalation and Nasal

Manufacturing Services

- Integrated offer: from chemical synthesis to drug product manufacturing
- Bottom-up and Top-down particle engineering by:
 - Spray drying, Spray congealing, Hot melt extrusion, Co-precipitation, Crystallization and Milling
- Batch tableting and precision capsule filling
- Continuous Tableting

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