











## Product List Inhalation

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.

### Particle Engineered/Customized APIs

#### Corticosteroids

PRODUCT	ROUTE OF ADMINISTRATION	CAS NUMBER	CUSTOMIZED PARTICLE SIZE	REGULATORY STATUS
Fluticasone Furoate	 Inhalation  Nasal	397864-44-7	✓	US DMF
Fluticasone Propionate	 Inhalation  Nasal  Topical	80474-14-2	✓	CEP, US DMF, JP DMF, CN DMF
Mometasone Furoate Anhydrous	 Inhalation  Nasal  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	 Inhalation	869113-09-7	✓	DEV, TECH PACK
Vilanterol Trifenatate	 Inhalation	503070-58-4	✓	GMP, TECH PACK
Glycopyrronium Bromide	 Inhalation	51186-83-5	✓	US DMF
Salmeterol Xinafoate	 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
TwinCaps® DPI	 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 50mg	Antibiotics, biologics, anti-virals and more
PowdAir® DPI	 Inhalation	Capsule	Reusable	Up to 50mg	Asthma, COPD, Cystic Fibrosis and more
Papillon DPI	 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

From  
feasibility to  
commercial



Get  
to know  
more



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

[www.hovione.com](http://www.hovione.com)









# Product List

## Oral, Injectable, Topical and Ophthalmic








### 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.

#### Antibiotics

PRODUCT	ROUTE OF ADMINISTRATION	CAS NUMBER	CUSTOMIZED PARTICLE SIZE	REGULATORY STATUS
Doxycycline Hyclate	Oral  Injectable 	24390-14-5	✓	CEP, US DMF, JP DMF
Doxycycline Monohydrate	Oral 	17086-28-1	✓	CEP, US DMF
Minocycline Base	Oral  Injectable 	10118-90-8	✓	US DMF
Minocycline Hydrochloride	Oral  Injectable  Topical 	13614-98-7	✓	CEP, US DMF, JP DMF, CN DMF

#### Corticosteroids

PRODUCT	ROUTE OF ADMINISTRATION	CAS NUMBER	CUSTOMIZED PARTICLE SIZE	REGULATORY STATUS
Betamethasone Acetate	Ophthalmic  Injectable 	987-24-6		US DMF
Betamethasone Disodium Phosphate	Ophthalmic  Injectable  Topical 	151-73-5		US DMF, JP DMF
Halobetasol Propionate	Topical 	66852-54-8	✓	US DMF
Hydrocortisone Aceponate	Topical 	74050-20-7	✓	ASMF & VMF

#### Antiparasitic

PRODUCT	ROUTE OF ADMINISTRATION	CAS NUMBER	CUSTOMIZED PARTICLE SIZE	REGULATORY STATUS
Ivermectin Human Grade	Oral  Topical 	70288-86-7		CEP, US DMF

#### Excipients

PRODUCT	ROUTE OF ADMINISTRATION	CAS NUMBER	CUSTOMIZED PARTICLE SIZE	REGULATORY STATUS
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
- Nasal and Inhalation

### 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

[www.hovione.com](http://www.hovione.com)  
[hello@hovione.com](mailto:hello@hovione.com)

In the United States,  
 call 1 609-918-2600  
 In Europe and the rest of the  
 world, call +351 21 982 9000

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