

Together elevating patient health

Discover how we go beyond the essential to support the development of sustainable, science-backed pharmaceuticals that elevate the health of patients worldwide.

We bring progress to life



Together, making our world a healthier place

Health and well-being means relief from ailments to live life to the fullest, and prevention or treatment of disease for a better quality of life. When you collaborate with dsm-firmenich, you get an expert, purpose-led partner committed to making our world a healthier place.

- Create patient-centric therapies that elevate health for people living with disease through a high-quality product portfolio, reliable and consistent supply and expert innovation support.
- Navigate the regulatory landscape and expand into new geographies with drug product submission guidance and expertise in quality and compliance.
- Get support beyond the supply of active ingredients and specialty excipients from a global team of industry experts and scientists that care.

A comprehensive offering to the pharmaceutical market

Products

Active pharmaceutical ingredients (APIs)

- Leading vitamin, cannabidiol and carotenoid APIs and small molecules, such as benzodiazepines for innovation across a broad range of applications.

Specialty excipients and ingredients

- High-quality specialty excipients and ingredients, including vitamins, vitamin and carotenoid derivatives and taste solutions for enhanced drug formulations.

Expert services

Regulatory and quality services

- Sustaining compliance with current GMP standards all along the drug manufacturing process can be complex. As a trusted partner, we can support you with access to all the necessary regulatory documentation and with variable service levels to meet the technical, quality, regulatory and supply standards.

Application and technical services

- Our comprehensive application and technical expertise and services help you to overcome complex formulation challenges. The development of bespoke solutions meeting a variety of regulatory standards, including ICH Q7, can be tailored to your individual formulation requirements.

Sustainability services

- As one of the only suppliers with EcoVadis Platinum certification, we are a leader in sustainability and business impact measurement. We can support you with tangible data to improve your Scope 3 targets – helping you meet your own sustainability goals.

Customized solutions

Premix solutions

- We can help you develop customized premix solutions that are as unique as the patients you serve. With a pharma-certified premix plant, we have the resources and knowledge to create specific customized blends of ingredients in one single, efficient and homogenous premix to suit your custom application needs.

Pioneering sustainability

The healthcare industry has a sizeable carbon footprint and therefore a big part to play in reducing greenhouse gas emissions to help protect our planet.

We firmly believe in striking a balance between what people want, what we collectively need, and what the planet demands.

Accelerating the route to net-zero with science-based targets

We have submitted ambitious climate targets to **Science Based Targets initiatives (SBTi)** for validation, aligned with the aim of keeping global warming below 1.5°C.

Net-zero

by 2025

25%

reduction in value chain emissions by 2030*

42%

reduction in scope 1 and 2 emissions by 2030*

100%

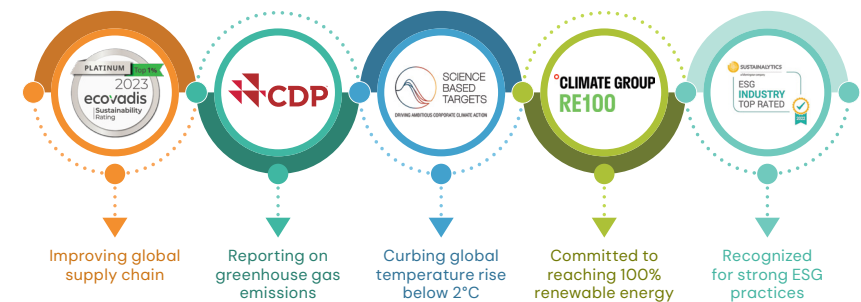
purchased renewable electricity by 2025

*Baseline 2021

We're doing our part to make it easier for our customers and end-users to do theirs. For us, standing up for sustainability means being transparent about our climate impact.

That involves:

- Minimizing our environmental impact across the supply chain.
- Creating drug products using more eco-friendly ingredients that put the health of people and planet first.
- Providing accurate, science-based information to help you meet sustainability outcomes through our in-house Life Cycle Assessment (LCA) expertise and easy-to-understand tools such as our Imp'Act™ Card and Solutions Imp'Act™ Calculator.



Your trusted partner for a reliable supply

Our worldwide network of strategically located production facilities guarantees a reliable, secure and consistent supply of our APIs, excipients and specialty ingredients portfolio.

We assure delivery with Good Distribution Practice (GDP) requirements, providing scale and redundancy to minimize disruption risks and support your drug development pipeline.

Our API quality is governed by the following certification systems

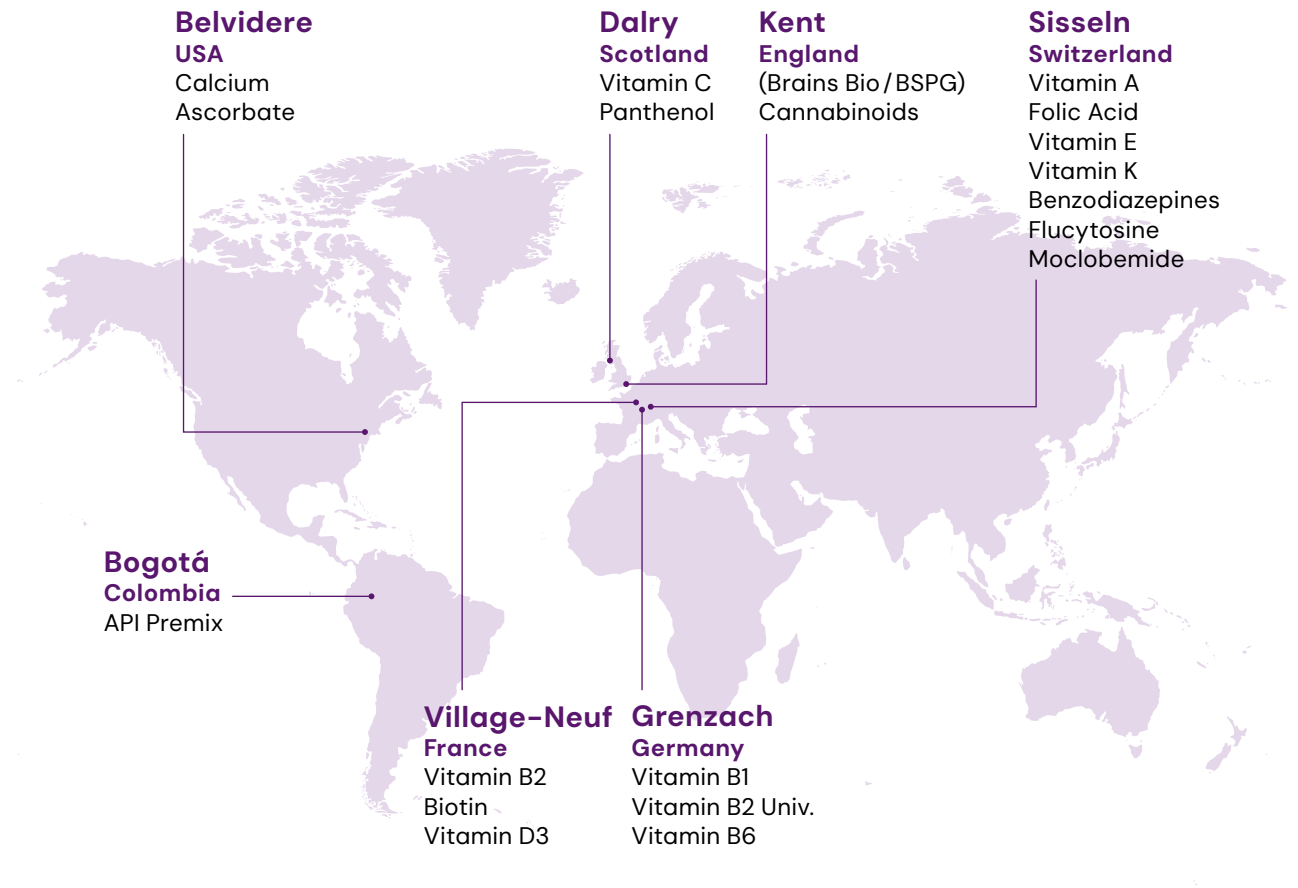
- ICH Q7 compliant
- DMF, CEP
- GMP certificates by authorities
- USP / EP / JP

We support regulatory interest groups and health authorities

- EDQM
- US FDA
- APIC
- IPEC
- Various National Health Authorities

Our sustainability credentials

- ISO 14001 – Environmental protection
- ISO 50001 – Energy management system
- Dow Jones Sustainability Index leader
- EcoVadis Platinum certification





Regulatory and Quality services that meet your increasingly rigorous demands

We meet the highest GMP standards across our global network, minimizing supply disruption risks and supporting your drug pipeline.

Our product portfolio is supported by the necessary documentation, that is essential in the pharmaceutical environment. And we leverage our global pharma quality and regulatory expertise to stay at the forefront of the ever-evolving regulatory requirements.

Ingredients for Pharmaceutical Use (APIs and Excipients)

Product Code	Product
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Vitamin A

50 1754 5	Retinyl Palmitate 250 CWS/F Ph
04 2401 3	Vitamin A Palmitate 1.7 MIU/g (BHA/BHT)
50 1626 2	Retinyl Palmitate 1.7 MIUg Ph
50 1227 9	Dry Vitamin A Acetate 500 B
50 1829 3	Retinyl Palm1.7MIU/G BHA/BHT Ph

Vitamin E

50 1657 7	Dry Vitamin E 50% CWS/S Ph
50 1626 0	dl- α -Tocopheryl Acetate Ph
50 1674 1	all-rac- α -Tocopherol Ph

Vitamin D

50 1621 2	Dry Vitamin D3 100 SD/S Ph
50 1647 3	Dry Vitamin D3 100 CWS Ph
50 1752 4	Vitamin D3 1.0 MIU/g Ph
50 1626 3	Vitamin D3 Crystalline Ph

Vitamin K1

04 3492 2	Dry Vitamin K1 5% SD*
50 1822 5	Dry Vitamin K1 5% SD Ph**
04 3501 5	Vitamin K 1
50 1322 4	Vitamin K1 API (US DMF only)

Vitamin B1

04 2947 3	ROCOAT Thiamine Mononitrate 33 1/3%
50 1625 7	Thiamine Hydrochloride Ph
04 1894 3	Thiamine Mononitrate

* To be replaced for pharmaceutical usage by respective pharma product code

** Pharma product code expected to be launched within 12 months period

*** Please contact your dsm-firmenich representative for more information.

Product Code	Product
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Vitamin B2

50 1626 1	Riboflavin 5'-Phosphate Ph (origin France)
50 1751 3	Riboflavin 5'-Phosphate Ph (origin India)
50 1775 4	Riboflavin Universal Ph

Vitamin B3

04 8784 8	Niacinamide
50 1629 1	Niacinamide Ph (US DMF only)**

Vitamin B5

04 1267 8	Calcium D-Pantothenate*
50 1776 0	Calcium D-Pantothenate Ph**
50 1625 8	D-Panthenol Ph

Vitamin B6

04 2945 7	ROCOAT Pyridoxine Hydrochloride 33 1/3%
50 1646 0	Pyridoxine Hydrochloride Ph (origin: Germany)

Vitamin B7

50 1626 4	D-Biotin Ph
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Vitamin B9

50 1625 9	Folic Acid Ph
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Vitamin B12

50 1251 1	Vitamin B12 1% SD*
50 1823 8	Vitamin B12 1% Ph**
04 2909 0	Vitamin B12 0.1% WS*
50 1823 5	Vitamin B12 0.1% Ph**
04 2915 5	Vitamin B12 Crystalline
50 1630 0	Vitamin B12 Crystalline Ph (US DMF)

Product Code	Product
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Vitamin C

04 0809 3	Ascorbic Acid Fine Granular
50 1645 0	Ascorbic Acid Fine Powder Ph
50 1625 5	Ascorbic Acid Ph
50 1775 7	Calcium Ascorbate Ph
50 1625 6	Sodium Ascorbate Ph
50 0976 6	Ascorbic Acid Ultra Fine Powder
04 2511 7	Coated Ascorbic Acid, Type EC
50 0774 7	Ascorbic Acid 95% Granulation*
50 1775 8	Ascorbic Acid 95% gran. Ph**

Beta-Carotene

50 1434 4	β -Carotene Crystalline Ph
50 1438 7	β -Carotene 30% FS Ph
50 1435 2	BetaTab® 20% S Ph

Cannabinoid APIs

50 1714 2	BSPG Cannabidiol (CBD) API
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Benzodiazepines***

04 3967 3	Clonazepam
50 0553 1	Clonazepam JP
04 4064 7	Bromazepam
05 00552 3	Bromazepam JP
04 4181 3	Flunitrazepam

Antifungals***

50 1071 3	Flucytosine
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Benzamides***

04 0555 8	Moclobemide
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We are your partner for innovative cannabinoid-based drug development

We are passionate about pioneering the next frontier in cannabinoid research and development with the highest quality cannabidiol (CBD) pharmaceutical ingredients and end-to-end technical, formulation, regulatory and quality expertise.

Together with our strategic partner and pioneer in the manufacturing of high-quality cannabinoids, Brains Bioceutical, we offer a unique innovation platform. It is helping to simplify complex cannabinoid formulation challenges in early-stage drug development and inspire customized cannabinoid solutions to transform treatment possibilities and convenience for patients worldwide.

Aiming to inspire more patient-centric solutions than those currently on the market, we successfully developed CBtru[®], a premium formulated CBD drug product intermediate, serving solid oral dosage forms with a high API loading, good physical and chemical stability, and optimized bioavailability.



Enhancing drug formulations with specialty excipients and ingredients

Drug formulation is growing more complex with increasingly challenging API properties, drug delivery systems and patient population requirements.

We offer a formulation toolbox with solutions for enhanced stability, solubility, bioavailability and or targeted delivery, along with a range of specialty excipients and ingredients – including vitamins, vitamin derivatives, flavors and taste modulators. We can help you find the right solution for the development of safe and effective drug formulations.

Take your drug product to another level with our expertise in vitamins, vitamin derivatives and taste solutions

Enhance small molecule formulations

Improve the profile of small molecule drug products with our specialty excipients, from enhanced API stability to lower risk of nitrosamine formation.

Drive innovation in biologics

Our ingredients can support the formulation of biologics by acting as stabilizers, viscosity reducers, adjuvants for vaccines, nutrients in cell culture, amongst other functionalities.

Improve patient convenience and therapy compliance through taste solutions

We offer a wide portfolio of flavor tonalities and cutting-edge taste modulation capabilities for solid and liquid dosage forms, designed to help improve patient convenience and therapy compliance.



Improving patient convenience and therapy compliance through taste solutions

Our offering

- **Flavors and extracts** across a broad range of tonalities, including citrus, mint, vanilla and brown notes and fruits.
- **Taste modulators** – such as bitter blockers, off-notes maskers, sensates, as well as sweetness and mouthfeel enhancers – including a proprietary receptor-based discovery technology that enables fast screening and creation of taste receptor-specific maskers and blockers.
- **Encapsulation technologies** that provide longer shelf life, resistance to moisture, oxygen, higher temperatures and a controlled (or optimized) flavor release.

Partner with dsm-firmenich

We're here to help you create patient-centric solutions
that allow treatments to meet their full potential.

Together, elevating patient health.

Contact us to get started



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