

EMPOWERING STABLE VACCINE MANUFACTURING

Raw materials for upstream,
downstream processing and formulation



HIGHLIGHTS

Qualified partner of global (bio)pharma companies

Production facility with cleanrooms class C&D

- EU GMP certified acc. to Part 1 + 2
- IPEC-GMP for excipients certified by EXCiPACT
- "Made in Germany"

Multi-compendial bioprocessing chemicals for use as raw material or excipients

In-house chemical/physical analytical laboratory

Microbiological testing (e.g. sterility, endotoxins, RNase, TAMC/TYMC, bioburden)

Logistics and transport

- GDP-certified pharma logistics
- Customised logistics concepts
- International distribution network

Warehouse

- 3,200 pallet spaces for packaging materials, raw materials and finished products, temperature controlled
- Additional external storage capacities at warehousing service provider

Your challenge – Our solution

EMPOWERING STABLE VACCINE MANUFACTURING

The crucial role of the right raw material selection

In the realm of vaccine manufacturing, stability and safety are paramount. The selection of appropriate raw materials plays a pivotal role in achieving these goals while mitigating the risk of cross-contamination. At our core, we understand this critical need, and that's why we present an extensive portfolio that addresses these challenges head-on.

Our comprehensive selection comprises many critical products that hold the distinction of being multi-compendial and tested as low in endotoxins. This ensures that each material meets the rigorous standards set by various compendia, safeguarding the integrity of your manufacturing processes. With these solutions in hand, you can confidently navigate the complexities of vaccine production, ensuring the safety and efficacy of your life-saving products.

At CG Pharma & Biotech, we prioritise the unique needs of our clients above all else. Our commitment to excellence extends to offering services and products that are fully customisable, allowing you to build a solution that perfectly aligns with your requirements.

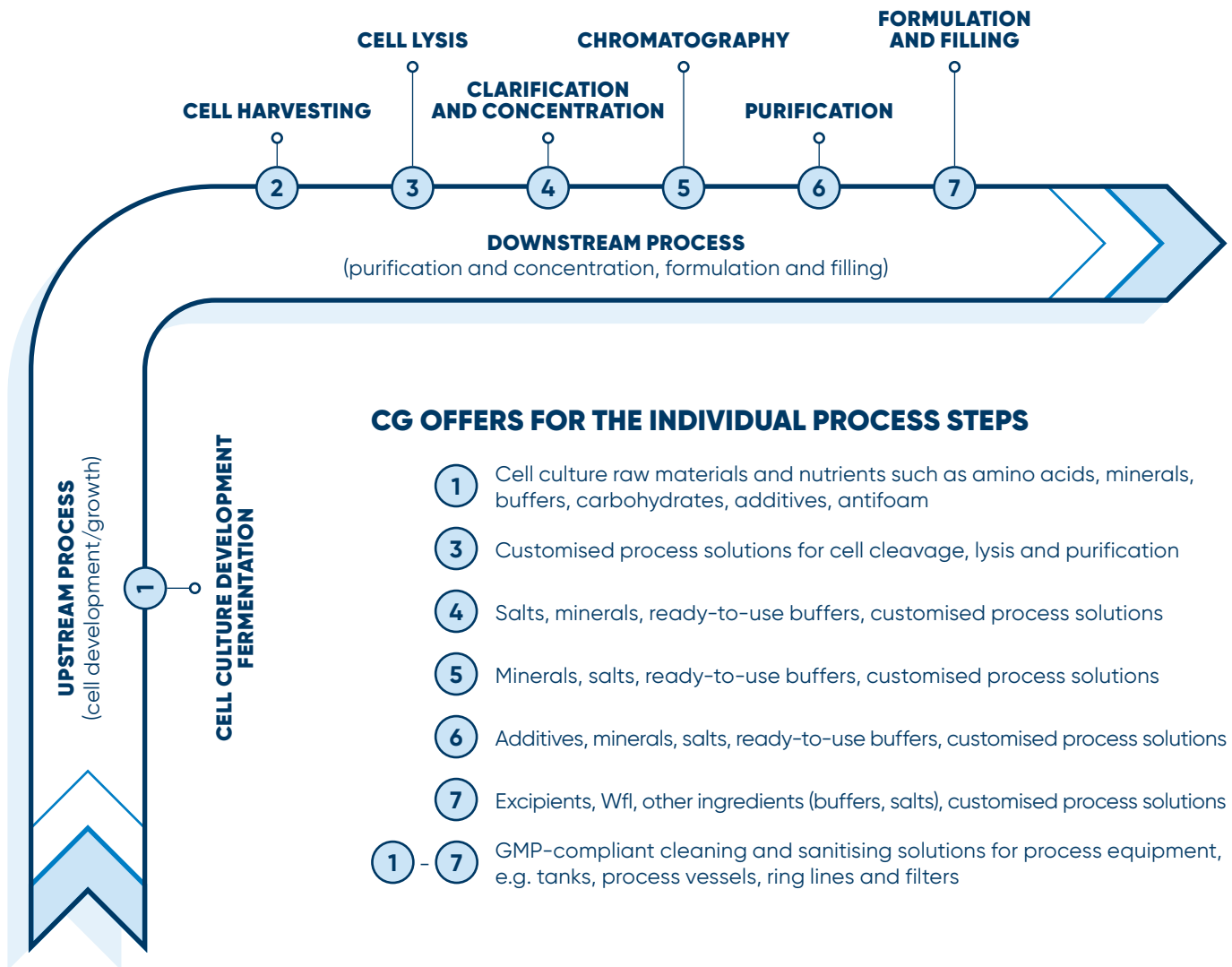


DIFFERENT TYPES OF VACCINES

Inactivated vaccines	Viral vector vaccines	Recombinant vaccines
Live-attenuated vaccines	Messenger RNA (mRNA) vaccines	Polysaccharide vaccines
Toxoid vaccines	Subunit vaccines	Conjugate vaccines

BIOPHARMACEUTICAL PRODUCTION PROCESS

CG Pharma & Biotech offerings for the individual process steps



RIGHT SOLUTION FOR STABLE VACCINE MANUFACTURING

Customised formulations, multi-compendial production chemicals and comprehensive packaging options

We understand the challenges of our partners and compliance with regulatory requirements. We accompany our partners on the path from the development stage cross lab scale to commercial production. Our services and products are tailored to the needs of our clients and can be selected and combined on a modular basis.

C-MADE

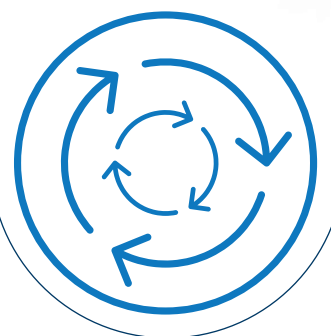
Manufacturing and development of **customised formulations** for the (bio)pharma production process – upstream, downstream and final formulation steps

LIQUIDS

customised formulations

SOLIDS

customised formulations
simple and highly complex mixtures



PHARMPROVE®

Multi-compendial bioprocessing chemicals for use as raw material or excipient for manufacturing of (bio)pharmaceuticals

LIQUIDS

single components

SOLIDS

single components





C-MADE

In the intricate landscape of biopharmaceutical production, precision and customisation are essential. At CG Pharma & Biotech, we specialise in manufacturing customised formulations, sensitively developed to fit your needs at every stage of the production process.

From upstream to downstream and final formulation, our portfolio covers a wide spectrum of essential components, including alcohols/solvents, strong acids/bases, buffers, high-quality water and salt solutions. Each formulation is developed to your specifications, ensuring optimal compatibility and efficacy within your production process.

We offer tailored solutions that empower you to achieve the highest standards of quality and efficiency. Partner with CG Pharma & Biotech to elevate your biopharma endeavours with formulations that are as unique as your innovations.

PHARMPROVE®

At CG Pharma & Biotech, we recognise that precision and compliance are the crucial factors in pharmaceutical and biopharmaceutical manufacturing. That's why we offer a range of multi-compendial production chemicals sensitively developed to serve as ingredients, starting materials or excipients.

Our comprehensive portfolio is designed to seamlessly integrate into your manufacturing processes, ensuring the highest standards of quality, safety and efficacy. Whether you're formulating pharmaceuticals or biopharmaceuticals, our multi-compendial production chemicals provide you with the essential building blocks necessary for success.

Partner with CG Pharma & Biotech to access a world of multi-compendial solutions that align with the stringent requirements of the industry, empowering you to create products that meet the highest benchmarks of excellence.

PRODUCT PORTFOLIO

BIOPHARMA UPSTREAM PROCESS: FERMENTATION AND CELL CULTURE DEVELOPMENT

AMINO ACID						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Glycine	EP, BP, USP	PharmProve®	56-40-6	x	x	x
L-Arginine	EP, BP, USP	PharmProve®	74-79-3	x	x	x
L-Arginine HCL	EP, BP, USP	PharmProve®	1119-34-2	x	x	x
L-Histidine	EP, BP, USP	PharmProve®	71-00-1	x	x	x
L-Histidine HCL	EP, BP, USP	PharmProve®	5934-29-2	x	x	x

BUFFERS						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
HEPES	-	PharmProve®	7365-45-9	x	x	x
HEPES sodium	-	PharmProve®	75277-39-3	-	-	-

CARBOHYDRATES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Dextrose anhydrous	EP, BP, USP	PharmProve®	50-99-7	x	x	x
D-(+)-Galactose	EP, BP, USP/NF	PharmProve®	59-23-4	x	x	x
Mannitol (excipient)	EP, BP, USP	PharmProve®	69-65-8	x	x	x
Sorbitol	EP, BP, USP/NF	PharmProve®	50-70-4	x	x	x
Sucrose	EP, BP, NF, JP, ChP	PharmProve®	57-50-1	x	x	x

CHLORIDES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Sodium chloride	EP, BP, USP	PharmProve®	7647-14-5	x	x	x

CITRATES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Citric acid anhydrous	EP, BP, USP	PharmProve®	77-92-9	x	x	x
Citric acid monohydrate	EP, BP, USP	PharmProve®	5949-29-1	x	x	x
Tri-sodium citrate dihydrate	EP, BP, USP	PharmProve®	6132-04-3	x	x	x

* Total yeast and mould count ** Total aerobic microbial count *** Bacterial endotoxins test

CLEANING-IN-PLACE SOLUTIONS (CIP)						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Acetic acid (glacial) 100 %	EP, USP, JP	PharmProve®	64-19-7	-	-	-
Hydrochloric acid 37 %	EP, USP/NF	PharmProve®	7647-01-0	-	-	-
Phosphoric acid 85 %	EP, USP/NF	PharmProve®	7664-38-2	-	-	-
Sodium hydroxide solution 1M	-	PharmProve® Plus	N/A	x	x	x
Sodium hydroxide solution 10M	-	PharmProve® Plus	N/A	-	-	-
Sodium hydroxide solution 45 %	-	PharmProve® Plus	N/A	-	-	-

OXIDES/HYDROXIDES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Sodium hydroxide pellets	EP, BP, USP/NF	PharmProve®	1310-73-2	-	-	-

BIOPHARMA DOWNSTREAM PROCESS: CONCENTRATION, HARVESTING AND PURIFICATION

BUFFERS						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
HEPES	-	PharmProve®	7365-45-9	x	x	x
HEPES sodium	-	PharmProve®	75277-39-3	-	-	-
Tris (trometamol base)	EP, BP, USP	PharmProve®	77-86-1	x	x	x
Tris (trometamol hydrochloride)	-	PharmProve®	1185-53-1	x	x	x

CHLORIDES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Sodium chloride	EP, BP, USP	PharmProve®	7647-14-5	x	x	x

CITRATES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Citric acid anhydrous	EP, BP, USP	PharmProve®	77-92-9	x	x	x
Citric acid monohydrate	EP, BP, USP	PharmProve®	5949-29-1	x	x	x
Tri-sodium citrate dihydrate	EP, BP, USP	PharmProve®	6132-04-3	x	x	x

* Total yeast and mould count ** Total aerobic microbial count *** Bacterial endotoxins test

CLEANING-IN-PLACE SOLUTIONS (CIP)						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Acetic acid (glacial) 100 %	EP, USP, JP	PharmProve®	64-19-7	-	-	-
Hydrochloric acid 37 %	EP, USP/NF	PharmProve®	7647-01-0	-	-	-
Phosphoric acid 85 %	EP, USP/NF	PharmProve®	7664-38-2	-	-	-
Sodium hydroxide solution 1M	-	PharmProve® Plus	N/A	x	x	x
Sodium hydroxide solution 10M	-	PharmProve® Plus	N/A	-	-	-
Sodium hydroxide solution 45 %	-	PharmProve® Plus	N/A	-	-	-

OXIDES/HYDROXIDES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Sodium hydroxide pellets	EP, BP, USP/NF	PharmProve®	1310-73-2	-	-	-

PHOSPHATES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Sodium dihydrogen phosphate dihydrate	EP, BP, USP	PharmProve®	13472-35-0	x	x	-
Sodium dihydrogen phosphate monohydrate	EP, BP, USP	PharmProve®	10049-21-5	x	x	x
Sodium phosphate monobasic anhydrous	EP, BP, USP	PharmProve®	7558-79-4	x	x	x

SPECIALTY COMPONENTS						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Guanidine hydrochloride	USP/NF	PharmProve®	50-01-1	x	x	x
Octoxynol (Triton X-100 substitute)	EP	PharmProve®	9002-93-1	x	x	x
Tri-n-Butylphosphate	EP	PharmProve®	126-73-8	-	-	-
Urea (excipient)	EP, BP, USP	PharmProve®	57-13-6	x	x	x

SULPHATES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Ammonium sulphate	USP/NF	PharmProve®	7783-20-2	x	x	x

* Total yeast and mould count ** Total aerobic microbial count *** Bacterial endotoxins test

EXCIPIENTS FOR FORMULATION AND STABILISATION

CARBOHYDRATES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Dextrose anhydrous	EP, BP, USP	PharmProve®	50-99-7	x	x	x
D-(+)-Galactose	EP, BP, USP/NF	PharmProve®	59-23-4	x	x	x
Mannitol (excipient)	EP, BP, USP	PharmProve®	69-65-8	x	x	x
Sorbitol	EP, BP, USP/NF	PharmProve®	50-70-4	x	x	x
Sucrose	EP, BP, NF, JP, ChP	PharmProve®	57-50-1	x	x	x

CLEANING-IN-PLACE SOLUTIONS (CIP)						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Hydrochloric acid 37%	EP, USP/NF	PharmProve®	7647-01-0	-	-	-
Phosphoric acid 85%	EP, USP/NF	PharmProve®	7664-38-2	-	-	-
Sodium hydroxide solution 10M	-	PharmProve® Plus	N/A	-	-	-
Sodium hydroxide solution 1M	-	PharmProve® Plus	N/A	x	x	x
Sodium hydroxide solution 45 %	-	PharmProve® Plus	N/A	-	-	-

CHLORIDES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Sodium chloride	EP, BP, USP	PharmProve®	7647-14-5	x	x	x

OXIDES/HYDROXIDES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Sodium hydroxide pellets	EP, BP, USP/NF	PharmProve®	1310-73-2	-	-	-

PHOSPHATES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Sodium dihydrogen phosphate dihydrate	EP, BP, USP	PharmProve®	13472-35-0	x	x	x
Sodium dihydrogen phosphate monohydrate	EP, BP, USP	PharmProve®	10049-21-5	x	x	x
Sodium phosphate monobasic anhydrous	EP, BP, USP	PharmProve®	7558-79-4	x	x	x

SPECIALTY COMPONENTS						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
1,2 Propylene glycol	EP, USP/NF	PharmProve®	57-55-6	x	x	x
Adipic acid	EP, USP/NF.JPE	PharmProve®	124-04-9	x	x	x
Ascorbic acid	EP, USP/NF	PharmProve®	50-81-7	x	x	x
Glycerol 99% synthetic	EP, USP/NF	PharmProve®	56-81-5	x	x	x
Macrogol 4000 Powder	EP, USP/NF	PharmProve®	25322-68-3	x	x	x
Polysorbate 80	EP, BP, USP/NF	PharmProve®	9005-65-6	x	x	x

* Total yeast and mould count ** Total aerobic microbial count *** Bacterial endotoxins test

DEVELOPMENT PIPELINE

Planned product expansion (2026/2027)

BIOPHARMA UPSTREAM PROCESS: FERMENTATION AND CELL CULTURE DEVELOPMENT

AMINO ACID						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
L-Alanine	EP, BP, USP	PharmProve®	56-41-7	x	x	x
L-Glutamic acid	EP, BP, USP	PharmProve®	56-86-0	x	x	x
L-Isoleucine	EP, BP, USP	PharmProve®	73-32-5	x	x	x
L-Leucine	EP, BP, USP	PharmProve®	61-90-5	x	x	x
L-Lysine mono-HCL	EP, BP, USP	PharmProve®	657-27-2	x	x	x
L-Methionine	EP, BP, USP	PharmProve®	63-68-3	x	x	x
L-Phenylalanine	EP, BP, USP	PharmProve®	63-91-2	x	x	x
L-Proline	EP, BP, USP	PharmProve®	147-85-3	x	x	x
L-Serine	EP, BP, USP	PharmProve®	56-45-1	x	x	x
L-Threonine	EP, BP, USP	PharmProve®	72-19-5	x	x	x
L-Tryptophan	EP, BP, USP	PharmProve®	73-22-3	x	x	x
L-Valine	EP, BP, USP	PharmProve®	72-18-4	x	x	x

CARBOHYDRATES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Trehalose	EP, BP, USP/NF	PharmProve®	99-20-7	x	x	x

CHLORIDES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Calcium chloride dihydrate	EP, BP, USP	PharmProve®	10035-04-8	x	x	x
Potassium chloride (excipient)	EP, BP, USP	PharmProve®	7447-40-7	x	x	x

PHOSPHATES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Potassium dihydrogen phosphate monobasic	EP, BP, USP	PharmProve®	7778-77-0	x	x	x
Sodium dihydrogen phosphate monohydrate	EP, BP, USP	PharmProve®	10049-21-5	x	x	x
Sodium phosphate monobasic anhydrous	EP, BP, USP	PharmProve®	7558-79-4	x	x	x

SPECIALTY COMPONENTS						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Poloxamer 188	EP, BP, USP/NF	PharmProve®	9003-11-6	x	x	x

* Total yeast and mould count ** Total aerobic microbial count *** Bacterial endotoxins test

BIOPHARMA DOWNSTREAM PROCESS: CONCENTRATION, HARVESTING AND PURIFICATION

PHOSPHATES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Potassium dihydrogen phosphate monobasic	EP, BP, USP	PharmProve®	7778-77-0	x	x	x

SPECIALTY COMPONENTS						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
EDTA disodium salt	USP	PharmProve®	139-33-3	x	x	x

EXCIPIENTS FOR FORMULATION AND STABILISATION

CARBOHYDRATES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Trehalose	EP, BP, USP/NF	PharmProve®	99-20-7	x	x	x

PHOSPHATES						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Potassium dihydrogen phosphate monobasic	EP, BP, USP	PharmProve®	7778-77-0	x	x	x

SPECIALTY COMPONENTS						
PRODUCT	QUALITY	BRAND	CAS. NO	TYMC*	TAMC**	BET***
Polysorbate 20	EP, BP, USP	PharmProve®	9005-64-5	x	x	x

* Total yeast and mould count ** Total aerobic microbial count *** Bacterial endotoxins test

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