PRODUCT PORTFOLIO & SERVICES
Production in the cleanroom for pharma and biotech

- Ready-to-use sterile liquid solutions to optimise biopharmaceutical production
- Standard & customised process, buffer, CIP/SIP solutions
- Customised bioprocess solutions
- In–house WFI production
- In–house quality control

CG PHARMA | CLEANROOM PRODUCTION
YOUR CHALLENGE – OUR SOLUTION
CG PHARMA VEHICLE FLEET
Delivery with specially and exclusively used tank containers
(product-specific equipment | qualified tank trucks)
Validated cleaning concept

CG SUPPLY – RELIABLE
Secure supply through storage in underground tank 30 m³

CG QUALITY
Quality control | batch-related full analysis according to agreed specification

SUPPLY – RAPID
365 | 24 | 7 Availability of goods & fast delivery adapted to your storage tank capacities as required

CG PHARMA PRODUCTION
GMP | AMG §13 certified manufacturing

YOUR CHALLENGE – OUR SOLUTION
**Production**
- Manufactured according to GMP/AMG Section 13
- Cleanroom environment C/D (ISO 7/8)
- Vessel capacity of 5,000 L per batch (stainless steel/PVDF)
- Processing of hazardous substances in the cleanroom
- In-house WFI production
- In-house ultrapure steam production
- Processing of liquid and solid chemical components
- 2 μm sterile filtration
- Batch sizes from 200 L - 5,000 L

**Applications (extract)**
- **»SENSITIVE«**
  - Production of vaccines
  - Production of antibody-drug conjugates
  - Production of monoclonal antibodies
  - Production of recombinant proteins
  - Virus inactivation
  - Buffers for upstream and downstream applications
  - pH value adjustments

- **»STRONG«**
  - Protein purification/stabilisation
  - Cleaning and rinsing solutions (CIP media)
  - Disinfection of process liquids
  - Chromatography steps for media and buffer preparation
  - Diafiltration and purification buffers
  - Cleaning of stainless steel equipment

**Quality control**
- **VALIDATED TEST METHODS**
  - Appearance
  - pH value
  - Conductivity
  - Osmolarity
  - Total microbial count (bioburden)
  - Endotoxins
  - Sterility
  - Density
  - RNase
  - Assay

**Packaging options**
- Single-use bags 1 L - 1,000 L
- Transport packaging: CG Tainer reusable multiway-containers for single-use bags (in-house development)
- Canisters and drums 5 L - 200 L
- IBCs (intermediate bulk containers) 500 L - 1,000 L
- Isotainers > 20,000 L

**YOUR CHALLENGE – OUR SOLUTION**
### Alcoholic Solutions
- 2-Propanol (various concentrations)
- Acetone (various concentrations)
- Acetonitrile (various concentrations)
- Ethanol absolute undenatured (EP, USP, JP)
- Ethanol undenatured (various concentrations)
- Ethanol undenatured 20%
- Ethanol undenatured 20% with NaCl
- Ethanol undenatured 5% with TRIS
- Sodium chloride solution 0.9%
- Sodium chloride solution 1 mol/L
- Sodium chloride solution 2 mol/L
- Sodium chloride solution 5 mol/L
- PBS (phosphate-buffered saline) (various concentrations)

### High Quality Water
- Purified water (AP) EP, USP, JP
- Water for injection (WFI) EP, USP, JP

### Strong Alkaline Solutions
- Sodium hydroxide solution 0.1 mol/L
- Sodium hydroxide solution 0.2 mol/L
- Sodium hydroxide solution 0.5 mol/L
- Sodium hydroxide solution 1 mol/L
- Sodium hydroxide solution 2 mol/L
- Sodium hydroxide solution 5 mol/L
- Sodium hydroxide solution 6 mol/L
- Sodium hydroxide solution 8 mol/L
- Sodium hydroxide solution 10 mol/L
- Sodium hydroxide solution 20%
- Sodium hydroxide solution 25%
- Sodium hydroxide solution 32%
- Sodium hydroxide solution 45%
- Sodium hydroxide solution 50%
- Sodium hydroxide pellets suitable for biopharmaceutical production EP, USP, JP

### Strong Acidic Solutions
- Acetic acid 0.5 mol/L
- Acetic acid 1 mol/L
- Acetic acid 30%
- Acetic acid 60%
- Acetic acid 80%
- Acetic acid glacial 99/100%
- Phosphoric acid (various concentrations)
- Hydrochloric acid 0.5 mol/L
- Hydrochloric acid 1 mol/L
- Hydrochloric acid 2 mol/L
- Hydrochloric acid 3 mol/L
- Hydrochloric acid 6 mol/L
- Hydrochloric acid 37%
- Citric acid solution 1 mol/L
- Citric acid solution 2 mol/L
- Citric acid solution 5 mol/L
- Citric acid solution 50%

### Salt Solutions
- Ammonium sulphate solution 0.7 mol/L
- Ammonium sulphate solution 3.5 mol/L
- Ammonium sulphate / HEPES solution
- Citrate buffers
- Sodium acetate solution 20 mM/L
- Sodium acetate solution 1 mol/L
- Sodium chloride solution 0.9%
- Sodium chloride solution 1 mol/L
- Sodium chloride solution 2 mol/L
- Sodium chloride solution 5 mol/L
- PBS (phosphate-buffered saline) (various concentrations)
BUFFER SOLUTIONS

Organic buffer solutions
- EDTA buffers
- Glucose solution (various concentrations)
- HEPES buffers (optionally with HCl, ethanol, NaCl, EDTA, various concentrations and pH adjustments)
- Sucrose solution 1.2 mol/L
- TEAA 0.1 mol/L
- TEAA 1 mol/L
- TRIS 20 mM / 20 mM citrate
- TRIS 20 mM / HCl / ethanol 5%
- TRIS 20 mM / HCl / NaCl 0.5 mol/L
- TRIS 20 mM / HCl / NaCl 1 mol/L
- TRIS 50 mM / HCl / NaCl 1.5 mol/L
- TRIS 100 mM / HCl / NaCl 1 mol/L / ethanol 20% v/v
- TRIS 100 mM / HCl
- TRIS 500 mM / HCl / CaCl2 75 mM
- TRIS buffers (various concentrations and pH adjustments)
- Urea (various concentrations)

Phosphate buffer solutions
- Potassium dihydrogen phosphate 1 mol/L
- Sodium dihydrogen phosphate 0.1 mol/L
- Sodium dihydrogen phosphate 40 mM/L
- Sodium phosphate 0.1 mol/L
- Sodium phosphate 10 mM/L / 0.15 mol/L NaCl
- Sodium phosphate 10 mM/L / 1 mol/L NaCl
- Sodium phosphate 20 mM/L
- PBS buffers (phosphate-buffered saline) (various concentrations)

Other formulations
- Elution buffers
- Storage buffers
- Regeneration buffers
- Spike buffers
- Tangential flow filtration (TFF) buffers
- UFDF buffers
- Scrubbing solutions

CUSTOMISED STERILE SOLUTIONS ON REQUEST

GMP COMPLIANT

YOUR CHALLENGE – OUR SOLUTION
WHAT CAN WE DO FOR YOU? WE ARE HERE TO HELP YOU.

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