








WATER FOR INJECTION (WFI)

High Purity for Biotech Applications

Water for Injection (WFI) is a critical component in pharmaceutical and biotechnological applications. Capricorn Scientific manufactures WFI according to the European Pharmacopoeia (Ph. Eur.) standards, ensuring exceptional purity, sterility, and consistency for upstream and downstream processes.

KEY QUALITY PARAMETERS OF WFI

DEIONIZED WATER	PARAMETER	WATER FOR INJECTION
 No Specification Conductivity is not regulated, as its use is intended for non-critical applications.	Conductivity	< 1.3 $\mu\text{S}/\text{cm}$ The absence of ions is detected to meet pharmaceutical purity standards.
No Specification TOC levels are not routinely tested for non-critical applications.	Total Organic Carbon (TOC)	< 500 ppb WFI has strict TOC limits to maintain sterility in biopharmaceutical processes. 
 No Specification Low aluminum levels are less critical and therefore not monitored.	Aluminum Content	< 10.0 ppb Aluminum levels are strictly controlled in WFI to avoid toxicity.
< 1.0 EU/ml Endotoxins are less strictly controlled as small impurities are not critical.	Endotoxin Level	< 0.25 EU/ml WFI has extremely low endotoxin levels to comply with sensitive applications. 
 Possibly Sterile Sterility is not required, and low microbial contamination not guaranteed.	Sterility & Microbial Count	Sterile-filtered Essential for pharmaceutical manufacturing and cell culture media.

APPLICATIONS OF WFI

- **Biopharmaceutical Manufacturing:** Ensuring purity in drug production
- **Cell Culture Media Preparation:** Ideal for biologics and monoclonal antibodies
- **Downstream Application:** Cleaning solutions for purification processes
- **Laboratory Use:** Reliable purity for research and reagent preparation

Reverse Osmosis (RO)

- Removes dissolved salts, organic contaminants, and particulates
- Ensures a high level of purity by significantly reducing microbial load and chemical impurities

Electro Deionization (EDI)

- Removes remaining ionic contaminants, incl. minerals and trace metals
- Enhances the conductivity and chemical purity, ensuring compliance with pharmacopeial standards

UV Sanitation

- Inactivates microorganisms and degrades organic compounds
- Enhances microbial safety by disrupting nucleic acids in the water system

0.1 µm Sterile Filtration

- Serves as a barrier, ensuring the removal of any remaining components
- Guarantees sterility and meets stringent regulatory requirements for WFI

cGMP-COMPLIANT MANUFACTURING

Guarantees sterility and meets stringent regulatory requirements for WFI

ORDER INFORMATION

PRODUCT

VOL. CAT.NO.

Water for Injection (WFI)
Ph. Eur. Grade
sterile-filtered

500 ml **WFI-500ML**
1000 ml **WFI-1000ML**

Water for Injection (WFI)
Ph. Eur. Grade
sterile-filtered

Bag 10 l **WFI-10L**
Bag 20 l **WFI-20L**
Bag 50 l **WFI-50L**

ON REQUEST



For further support, feel free to contact our experts at techservice@capricorn-scientific.com or phone (+49 6424 944 64 0).