



# Bring your USP methods up to date!

The benefits of Metrohm ion chromatography for your analytics of APIs, impurities, and excipients

## HIGHLIGHTS

- Highly robust
- Professional local service and support
- Compatible with Empower™ CDS (Waters™) and OpenLab CDS (Agilent)
- Compliant with FDA 21 CFR Part 11, ALCOA, ALCOA+

**Metrohm  
means ...  
Spectroscopy!**



# Metrohm IC – compliant with the latest USP methods

The United States Pharmacopeia (USP) has modernized a substantial number of existing monographs to stipulate ion chromatography methods for numerous pharmaceutical assays of APIs as well as analysis of impurities and excipients. Metrohm has cooperated with USP in this project as a partner and several of these

monographs have been validated with Metrohm instruments and columns.

The tables below describe USP monographs validated with Metrohm IC instruments and columns. Replace your titrations and other single parameter methods and switch to ion chromatography now!

## USP monographs validated with Metrohm IC instruments

USP chromatographic column packing	Metrohm column	Analyte	USP monograph	Application note
L76	Metrosep C 4	Calcium	Calcium Acetate Capsules	
L91	Metrosep A Supp 16	Chloride	Potassium Bicarbonate and Potassium Chloride Effervescent Tablets for Oral Solution (Chloride)	<a href="#">AN-S-373</a>
L91	Metrosep A Supp 17	Chloride	Sodium Chloride Tablets for Solution	<a href="#">AN-S-397</a>
L91	Metrosep A Supp 17	Chloride	Sodium Chloride Tablets	
L91	Metrosep A Supp 17	Chloride	Sodium Chloride Inhalation Solution	
L91	Metrosep A Supp 17	Chloride	Sodium Chloride Ophthalmic Ointment	
L91	Metrosep A Supp 17	Chloride	Sodium Chloride Ophthalmic Solution	
L91	Metrosep A Supp 16	Fluoride	Sodium Fluoride Tablets	<a href="#">AN-S-379</a>
L91	Metrosep A Supp 16	Fluoride	Sodium Fluoride	<a href="#">AN-S-375</a>
L91	Metrosep A Supp 16	Fluoride	Sodium Fluoride Gel	<a href="#">AN-S-376</a>
L91	Metrosep A Supp 16	Fluoride	Stannous Fluoride Gel	
L91	Metrosep A Supp 19	Fluoride	Stannous Fluoride	
L91	Metrosep A Supp 16	Monofluorophosphate	Sodium Monofluorophosphate	<a href="#">AN-S-380</a>
L76	Metrosep C 6	Potassium	Potassium Bicarbonate and Potassium Chloride Effervescent Tablets for Oral Solution (Potassium)	<a href="#">AN-C-185</a>
L76	Metrosep C 6	Potassium	Potassium Citrate and Citric Acid Oral Solution	
L76	Metrosep C 6	Potassium	Potassium Bicarbonate Effervescent Tablets for Oral Solution	<a href="#">AN-C-183</a>
L76	Metrosep C 6	Potassium, sodium	Potassium and Sodium Bicarbonates and Citric Acid Effervescent Tablets for Oral Solution	<a href="#">AN-C-184</a>
L76	Metrosep C 4	Zinc	Zinc Acetate	
L76	Metrosep C 4	Zinc	Zinc Carbonate	
L76	Metrosep C 4	Zinc	Zinc Sulfate	
L76	Metrosep C 4	Zinc	Zinc Sulfate Compounded Injection	<a href="#">AN-U-076</a>

## Demonstrated column equivalency for select USP monographs

USP chromatographic column packing	Metrohm column	Column equivalency proven for USP monographs	Application note
L46	Metrosep A Supp 1	Sodium Fluoride and Acidulated Phosphate Topical Solution	<a href="#">AN-S-399</a>
L46, L91	Metrosep A Supp 1, alternative Metrosep A Supp 16	Sodium Fluoride Oral Solution	<a href="#">AN-S-375</a>
L46	Metrosep A Supp 1	Voriconazole Related Compound F	
L91	Metrosep A Supp 17	Potassium Phosphates Compounded Injection	<a href="#">AN-S-398</a>
L91	Metrosep A Supp 17	Sodium Phosphates Compounded Injection	<a href="#">AN-S-398</a>
L91	Metrosep A Supp 10	Zinc Oxide, Zinc Oxide Neutral, Zinc Oxide Powder, Zinc Sulfate Ophthalmic Solution, Zinc Chloride	<a href="#">AN-U-076</a>
L91	Metrosep A Supp 19	Stannous Fluoride	
L97	Metrosep C Supp 2	Sodium Bicarbonate Compounded Injection	
L97	Metrosep C Supp 2	Sodium Phosphates Compounded Injection	
L105	Metrosep A Supp 4	Sodium Nitrite	<a href="#">AN-S-400</a>

# Ion chromatography is ... ion chromatography?

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Actually, it isn't. Because ion chromatography from Metrohm makes the difference. It is ...

**More robust:** We grant a 3-year warranty on our Swiss made instruments and a 10-year warranty on the anion suppressor.



**Universally compatible:** Our IC instruments can be controlled by our own MagIC Net software or by OpenLab CDS (Agilent), and Empower™ CDS (Waters™), offering a versatile solution for regulated environments.

**Serviced and supported by professionals – wherever you are:** With local Metrohm subsidiaries in more than 40 countries and exclusive partners in another 40+ more, our local service engineers and application specialists are there for you whenever you need them.

**Compliant:** Metrohm IC complies with GLP and meets all requirements regarding data integrity, security, and traceability as per FDA 21 CFR Part 11, ALCOA, and ALCOA+.

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