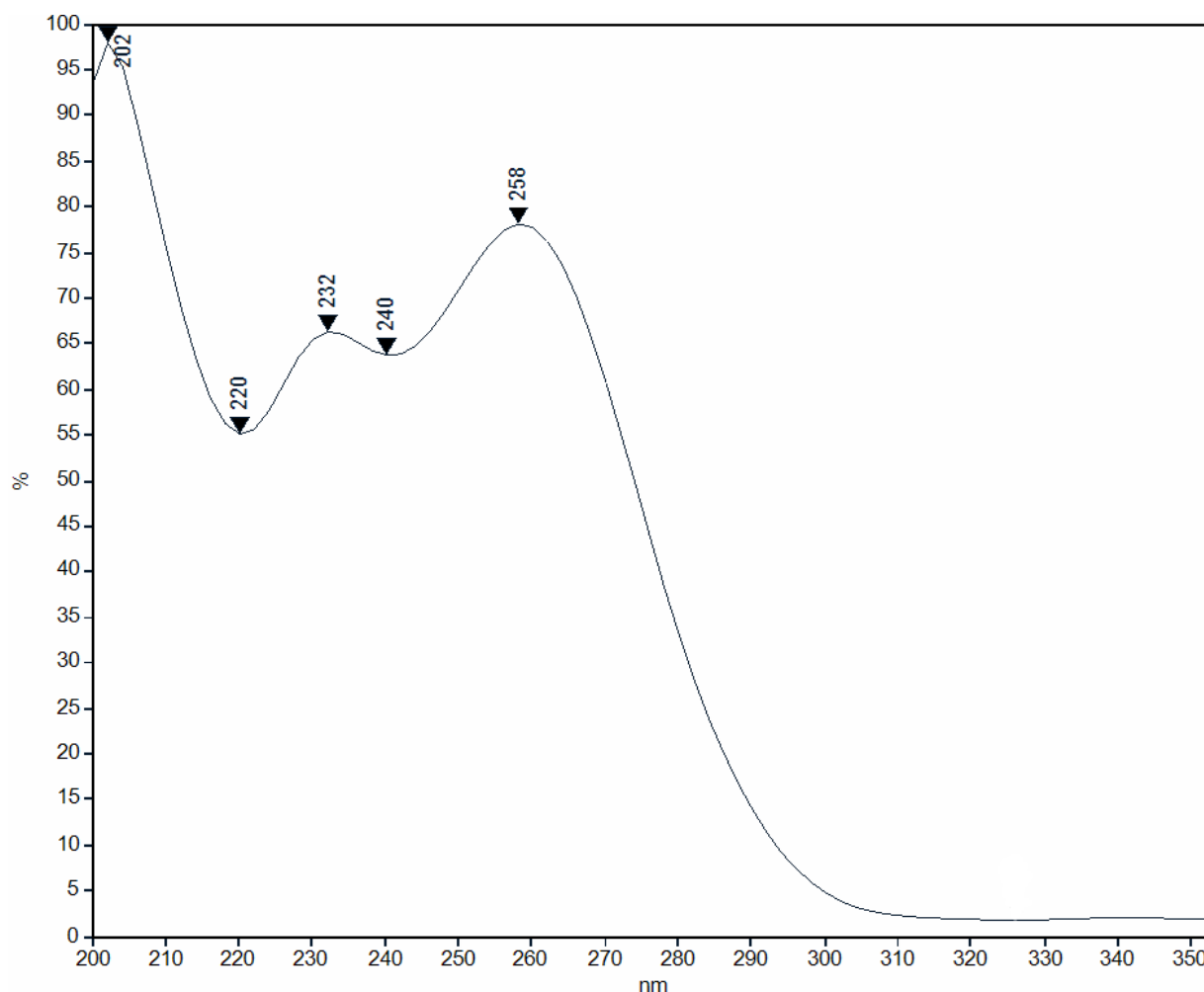


Chlorhexidine Acetate Irrigation Solution – BP 2024

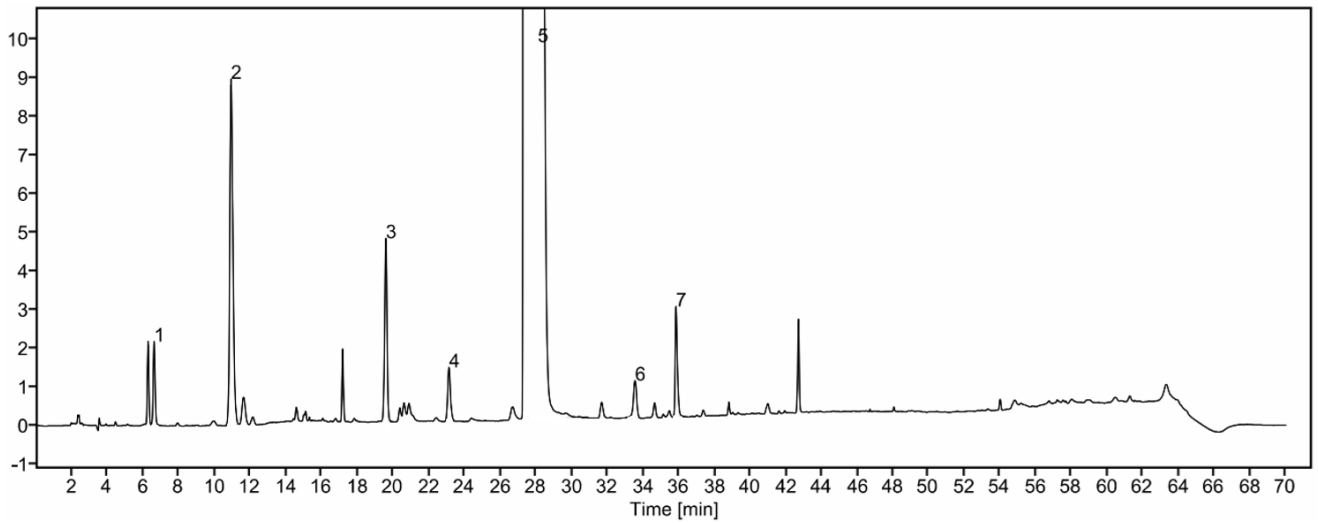
These chromatograms are provided for information only as an aid to analysts and are intended as guidance for the interpretation and application of BP monographs.

Typical spectrum for the Identification test by HPLC-UV/DAD for Chlorhexidine Acetate Irrigation Solution as published in BP 2024.



Column	Dr. Maisch, ReproSil-Pur Basic C18 (250 mm x 4.6 mm, 5 µm)			
Method Ref.	Assay for the Chlorhexidine Acetate Irrigation Solution monograph from BP 2024			
Buffer	10% v/v Trifluoroacetic acid in acetonitrile			
Mobile Phase A	Buffer: acetonitrile: water (1.9: 180: 820, v/v/v)			
Mobile Phase B	Buffer: water: acetonitrile (0.2: 200: 800, v/v/v)			
Diluent	Mobile phase A			
Flow rate	1.0 mL/min			
Column Temp	40 °C			
Injection Volume	25 µL			
Detection	250 nm			
Gradient	Time (minutes)	Mobile phase A (% v/v)	Mobile phase B (% v/v)	Comment
	0 – 10	100	0	isocratic
	10 – 14	100 → 85	0 → 15	linear gradient
	14 – 43	85 → 75	15 → 25	linear gradient
	43 – 54	75 → 0	25 → 100	linear gradient
	54 – 60	0	100	isocratic
	60 – 62	0 → 100	100 → 0	linear gradient
	62 – 70	100	0	re-equilibration

Typical chromatogram for solution (5) in the Related Substances test for Chlorhexidine Acetate Irrigation Solution as published in BP 2024.



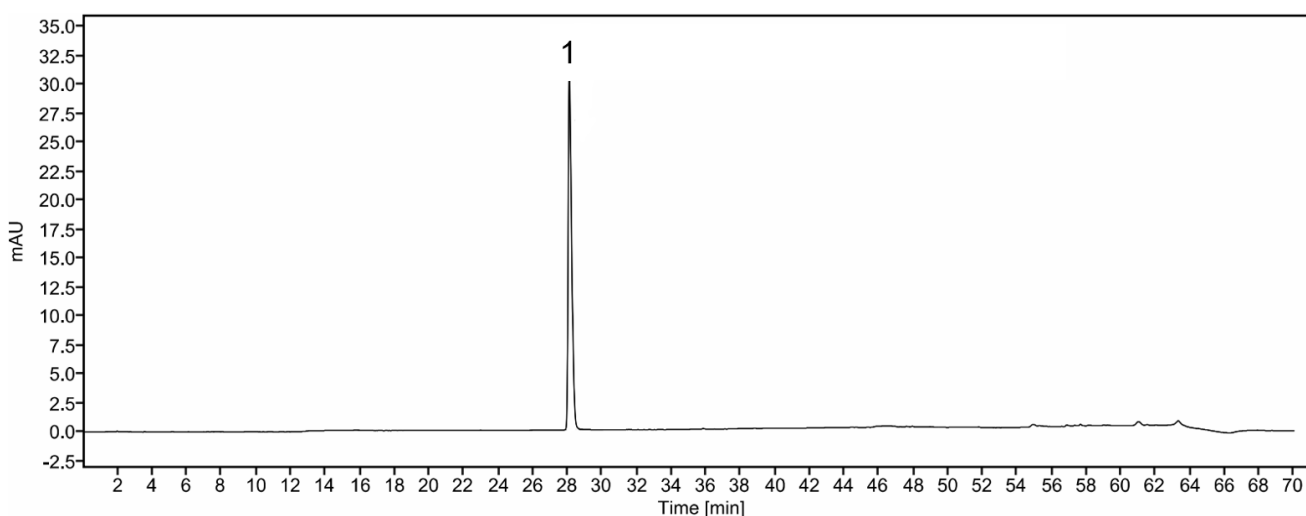
Peak ID: 1: Impurity G; 2: Impurity N; 3: Impurity F; 4: Impurity O; 5: Chlorhexidine; 6:

Impurity J; 7: Impurity K

Column	Dr. Maisch, ReproSil-Pur Basic C18 (250 mm x 4.6 mm, 5 µm)
Method Ref.	Related Substances for the Chlorhexidine Acetate Irrigation Solution monograph from BP 2024
Buffer	10% v/v Trifluoroacetic acid in acetonitrile
Mobile Phase A	Buffer: acetonitrile: water (1.9:180:820, v/v)
Mobile Phase B	Buffer: water: acetonitrile (0.2:200:800, v/v/v)
Diluent	Mobile phase A
Flow rate	1.0 mL/min
Column Temp	40 °C
Injection Volume	25 µL

Detection	250 nm			
Gradient	Time (minutes)	Mobile phase A (% v/v)	Mobile phase B (% v/v)	Comment
	0 – 10	100	0	isocratic
	10 – 14	100 → 85	0 → 15	linear gradient
	14 – 43	85 → 75	15 → 25	linear gradient
	43 – 54	75 → 0	25 → 100	linear gradient
	54 – 60	0	100	isocratic
	60 – 62	0 → 100	100 → 0	linear gradient
	62 – 70	100	0	re-equilibration

Typical chromatogram for solution (2) in the Assay test for Chlorhexidine Acetate Irrigation Solution as published in BP 2024.



Peak ID: 1: Chlorhexidine

Column	Dr. Maisch, ReproSil-Pur Basic C18 (250 mm x 4.6 mm, 5 µm)
Method Ref.	Assay for the Chlorhexidine Acetate Irrigation Solution monograph from BP 2024
Buffer	10% v/v Trifluoroacetic acid in acetonitrile

Mobile Phase A	Buffer: acetonitrile: water (1.9:180:820, v/v)			
Mobile Phase B	Buffer: water: acetonitrile (0.2:200:800, v/v/v)			
Diluent	Mobile phase A			
Flow rate	1.0 mL/min			
Column Temp	40°C			
Injection Volume	25 µL			
Detection	250 nm			
Gradient	Time (minutes)	Mobile phase A (% v/v)	Mobile phase B (% v/v)	Comment
	0 – 10	100	0	isocratic
	10 – 14	100 → 85	0 → 15	linear gradient
	14 – 43	85 → 75	15 → 25	linear gradient
	43 – 54	75 → 0	25 → 100	linear gradient
	54 – 60	0	100	isocratic
	60 – 62	0 → 100	100 → 0	linear gradient
	62 – 70	100	0	re-equilibration