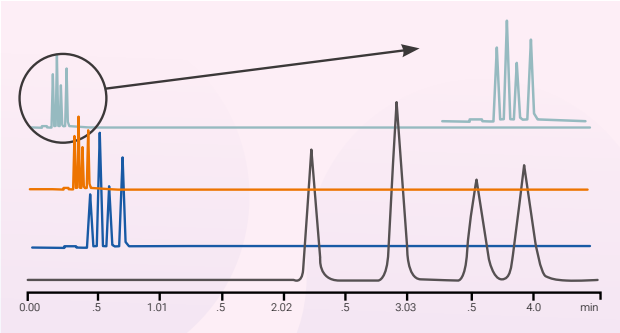
infoPoint

Solvents for UHPLC

Over the last years, the use of Ultra High Performance Liquid Chromatography (UHPLC) has significantly increased over conventional High Performance Liquid Chromatography (HPLC) due to the number of advantages that it offers.
Thanks to the improvements that UHPLC offers in terms of analysis speed, sensitivity and resolution, the number of laboratories purchasing UHPLC units is increasing.
These advantages are the result of significant improvements in the technology of those units (detectors, automated injectors, pumps, columns, etc.). To obtain the best performance from these UHPLC units, it is recommended that appropriate high purity solvents are used to avoid their interfering with analysis.

PanReac AppliChem offers improved specifications of HPLC gradient quality acetonitrile, methanol and water so that they are adequate for use in UHPLC:

- Lower non-volatile matter content
- Improved transparency at low wavelengths
- New control of base line drift



Please note that we have other qualities for analytical liquid chromatography, depending on your requirements:

	Acetonitrile	Methanol	Water
UHPLC Hypergradient	721881	721091	-
UHPLC	221881	221091	221074
HPLC	361881	361091	361074
LC-MS	701881	701091	701074

Product code	Product name	Pack sizes
221881.1611	Acetonitrile (Reag. Ph. Eur.) for UHPLC Supergradient, ACS	1 L
221881.1612		2.5 L
221881.16153		4 L
221881.0314		5 L
221881.0514*		5 L
221881.0515*		10 L
221881.0316		25 L
221881.0516*		25 L
221881.0537*		30 L
221881.0519*		200 L
221091.1612	Methanol (Reag. Ph. Eur.) for UHPLC Supergradient, ACS	2.5 L
221091.16153		4 L
221091.0515*		10 L
221091.0516*		25 L
221091.0537*		30 L
221091.0519*		200 L
221074.1612	Water for UHPLC Supergradient	2.5 L

*Stainless steel drum is subject to special selling conditions.

PanReac AppliChem
ITW Reagents

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The following table shows the specifications guaranteed for the UHPLC super gradient quality products.

	221881 Acetonitrile	221091 Methanol	221074 Water
Minimum assay (G.C.)	99.9 %	99.9 %	
Identity	IR passes test	IR passes test	
Density at 20/4	0.779-0.783	0.791-0.792	
Suitability for gradient elution according to ACS	Passes test	Passes test	Passes test
Range of distillation (>95% dist.)	80-82ºC		
APHA color	10	10	
Acidity	0.0005 meq/g	0.0002 meq/g	
Alkalinity	0.0001 meq/g	0.0002 meq/g	
Non-volatile matter	0.0001 %	0.0002 %	0.0001 %
Water (H_2O)	0.015 %	0.03 %	
Insoluble matter in H_2O		Passes test	
Reducing substances to $KMnO_4$		Passes test	
Darkened substances by H_2SO_4		Passes test	
Carbonyl compounds (as CH_3COCH_3)		0.001 %	
Specific conductance at 25 °C (measured during production)			$1.0 \times 10^{-6} ohm^{-1} cm^{-1}$
Base line drift (210 nm)	10 mAU		
Base line drift (235 nm)		15 mAU	
Transmittance, UV:			
190 (Cut off)	30 %		
193 nm	60 %		
195 nm	80 %		
200 nm	90 %		98 %
205 nm		10 %	
210 nm		30 %	98 %
220 nm		60 %	
230 nm		80 %	
240 nm		90 %	
254 nm			99 %
230-400 nm	98 %		
260-400 nm		98 %	
300-450 nm			99 %
Gradient:			
210 nm	1 mAU		5 mAU
235 nm		2 mAU	
254 nm	0.5 mAU	1 mAU	0.5 mAU
Fluorescence (as quinine):			
254 nm	1 ppb	1 ppb	1 ppb
365 nm	0.5 ppb	0.5 ppb	0.5 ppb
Microfiltered product (0.2 µm) and bottled under nitrogen atmosphere	✓	✓	✓

IP-002EN

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