Waters THE SCIENCE OF WHAT'S POSSIBLE.

UPC² QCRM Standards Care and Use Manual

CONTENTS

- I. INTRODUCTION
- II. STORAGE AND STABILITY
- III. EXAMPLES OF USING THE UPC² QCRM STANDARDS
- **IV. ORDERING INFORMATION**

I. INTRODUCTION

Quality Control Reference Materials (QCRM) contain mixtures of standards specifically chosen to provide an easy and reliable way to monitor the performance of chromatographic systems. Using a QCRM, you can be assured that your column and system are ready to analyze your samples. Regular use of QCRMs also provides an opportunity to benchmark your chromatographic systems and trend performance over time, making it easier to proactively identify problems and resolve them faster.

The UPC $^{2\textcircled{8}}$ QCRM is designed to be used with both ACQUITY UPC $^{2\textcircled{8}}$ Trefoil m and Torus m Columns.

This 4 compound mixture was selected with the following key chromatographic performance factors in mind:

- Compounds are well separated and cover a wide chromatographic elution range
- Contains one chiral compound to test chiral separation power (*trans*-stilbene oxide)
- Contains one ionizable compound, to test MS performance (sulfamethoxazole 254 m/z)
- All compounds are compatible with UV detection

Product Name	Intended Use	Chromatographic Mode	Systems	Contents	Part Number
UPC ² QCRM	Provides chromatographic performance information for both chiral and achiral modes	Convergence Chromatography, SFC chiral achiral	Waters ACQUITY UPC ²	 0.50 mg/mL (+/-) trans-stilbene oxide 0.50 mg/mL thymine 0.50 mg/mL sulfamethoxazole 0.50 mg/mL sulfamethizole 1 mL solution of 75:25 ACN:MeOH 	186007950
				Store refrigerated 2–8 °C	

Table 1. UPC² Quality Control Reference Materials (QCRM)

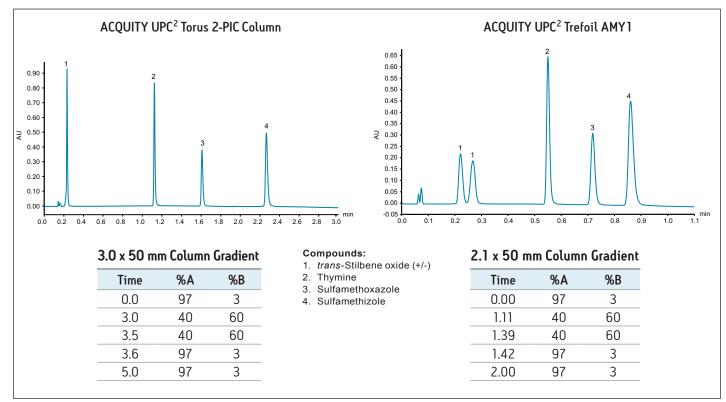
II. STORAGE AND STABILITY

The standard is shipped in a Waters Maximum Recovery Vial and capped with a solid black cap containing a PTFE/silicone liner. Also included, are 5 screw caps containing a PTFE/silicone septum. These are to be used with the standard and replaced as often as needed while using the QCRM.

The UPC² QCRM is shipped at ambient temperature. The standard should be stored long term at 2-8 °C. The expiration date listed is for an unopened package. Standard integrity and stability after opening must be determined based on your storage and use methods.

III. EXAMPLES OF USING THE UPC² QCRM STANDARDS

System:	ACQUITY UPC ²
Columns:	ACQUITY UPC ² Trefoil AMY1 2.5 $\mu m,$ 2.1 x 50 mm ACQUITY UPC ² Torus 2-PIC 1.7 $\mu m,$ 3.0 x 50 mm
Co-solvent:	Methanol
Flow rate:	2.0 mL/min (3.0 x 50 mm) 2.7 mL/min (2.1 x 50 mm)
Gradient:	See Figure 1
Column temp.:	50 °C
Injection volume:	2.0 µL
Detection (UV):	240 nm
ABPR setting:	2000 psi



Single QCRM for ACQUITY UPC² Trefoil and Torus Columns on a ACQUITY UPC² System

Figure 1. Chromatograms of UPC² QCRM run on ACQUITY UPC² Torus and ACQUITY UPC² Trefoil Columns.

V. ORDERING INFORMATION

Product Name	Part Number
UPC ² QCRM	186007950
Neutrals QCRM	186006360
Reversed-Phase QCRM	186006363
HILIC QCRM	186007226
QDa QCRM	186007345
Quad LCMS QCRM	186007362
LCMS QCRM	186006963
Preparative Chromatography Mix Standard	186007603
Autopurification System Standard	716000765

To locate additional information for standards specific to calibration, qualification, and tuning of instruments and detectors, as well as a more comprehensive listing of available standards and reagents, please visit **www.waters.com/standards**



Waters, The Science of What's Possible, ACQUITY, ACQUITY UPC², QDa, and UPLC are registered trademarks of Waters Corporation. Torus and Trefoil are trademarks of Waters Corporation. All other trademarks are the property of their respective owners. Waters Corporation

34 Maple Street Milford, MA 01757 U.S.A. T: 1 508 478 2000 F: 1 508 872 1990 www.waters.com