

## Assay Analysis for Mefenamic Acid (USP-38 method):

### SAMPLE PREPARATION:

**Standard solution:** Dissolve accurate quantity of Mefenamic acid in mobile phase to obtain the concentration of about 0.2mg/ml.

**Assay Solution:** Transfer about 100mg of Mefenamic acid to a 500ml volumetric flask dissolve and make up volume with mobile phase.

### CHROMATOGRAPHIC CONDITIONS:

**Instrument:** UltiMate 3000 LC

**Column:** Acclaim 120-C18 (4.6\*250mm, 5 µm, p/n 059149, lot no.:018-01-152)

**Buffer:** Prepare 50 mM solution of monobasic ammonium phosphate and adjust with 3M ammonium hydroxide to a pH of 5.0

**Mobile phase A:** Prepare a filtered and degassed mixture of Acetonitrile, Buffer solution and Tetrahydrofuran (23:20:7).

**Separation Mode:** Isocratic

**Column temperature:** 25°C

**Flow rate:** 1.0 mL/min

**Injection Volume:** 10 µl

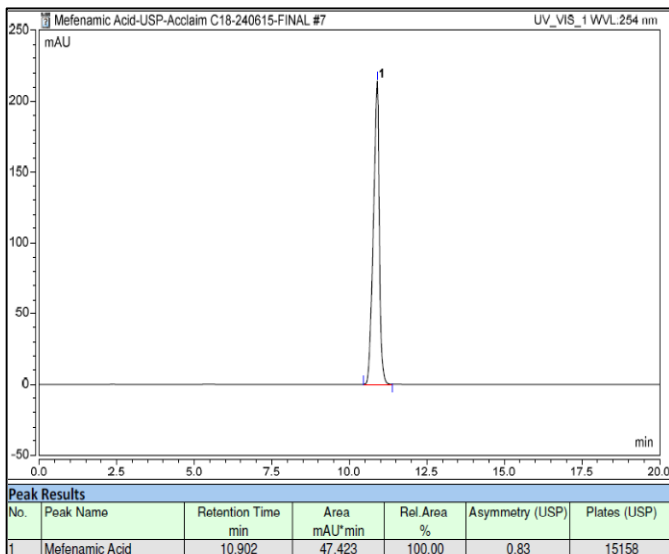
**Detector wavelength:** UV 254nm

**Run Time:** 20 min

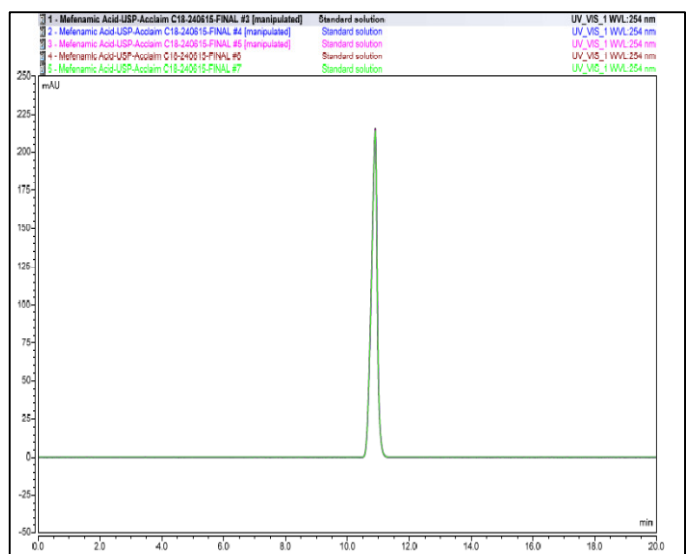
### System Suitability Results:

Sr. No.	Parameters	USP Criteria	Obtained Results
1	Column Efficiency for standard solution	NLT 8200	15158
2	Tailing factor for Mefenamic acid peak in standard solution	NMT 1.6	0.83
3	%RSD for replicate injection of standard	NMT 1.0%	0.19%

### CHROMATOGRAMS:



**Standard Solution**



**Overlay of Standard Solution**