

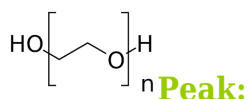
## PEG 400 Analyzed with ELSD- AppNote

### An Analysis of Polyethylene Glycol 400

This ANP Gradient demonstrates an effective Method for PEG 400 analysis in perfusate samples while maintaining excellent linear results (Correlation Coefficient = 0.9998.)

As perfusate samples are solutions passed through biological matrixes, these will often have varying levels of salt. As such, there were no issues observed with these salt variances and ANP mode.

The Separation was maintained after analysis of numerous Biological Samples and no Carry-Over was noted throughout the series of Sample runs.



Polyethylene Glycol 400

### Method Conditions:

**Column:** Cogent Diamond Hydride™, 4µm, 100Å

**Catalog No.:** 70000-15P

**Dimensions:** 4.6mm x 150mm

**Mobile Phase:**

A: DI Water

B: Acetonitrile

**Gradient:**

| Time (minutes) | %B  |
|----------------|-----|
| 0              | 100 |
| 20             | 50  |
| 25             | 50  |
| 25.10          | 100 |

**Post time:** 10 minutes

**Flow rate:** 1.0mL / minute

**Injection vol.:** 15µL

**Column Temperature:** 30° C

**Detection:** ELSD (Evaporative Light Scattering Detector) Gain: 1; Drift Tube Temperature: 1115°C; Nitrogen Flow: 2.0 L/min

**Sample Preparation:** 20% PEG standard was prepared by weighing approximately 2.0 grams of PEG 400 standard and mixing with 8.0 grams of DI Water. This Standard was then further diluted 1 : 50 with DI Water by Mass.

**Note 1:** PEG 400 (polyethylene glycol 400) is a low-molecular-weight grade of polyethylene glycol. It is a clear,

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colorless, viscous liquid and is very strongly hydrophilic, with a  $\log P = -4.8$ . Due in part to its low toxicity, PEG 400 is widely used in a variety of Pharmaceutical Formulations.

*Note 2:* The data was published in *Analytical Methods* 2011 Mar 1;3(3):742-744. "Analysis of PEG 400 in perfusate samples by aqueous normal phase (ANP) chromatography with evaporative light scattering detection." Webster GK, Elliott A, Dahan A, Miller JM.



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