

## Understanding the Linearity Solutions in the Chemical Solutions HPLC Qualification Kits - Tech Information

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### **Technical Note: Linearity Solutions in Chemical Solutions™ HSQ and PQ Qualification Kits**

Each linearity solution in the Chemical Solutions Qualification Kits is uniquely formulated with precisely defined concentrations of caffeine, enabling accurate and reproducible assessment of UV detector linearity in HPLC systems.



### **Key Details:**

- The solutions are designed to span a range of concentrations, allowing users to construct a reliable calibration curve and verify detector response across the expected analytical range.
- These concentrations are gravimetrically prepared and traceable, ensuring consistency and compliance with qualification protocols.



### **Special Note on L3 Solution:**

- L3 is the only linearity solution in the kit that contains a uracil peak.
- This uracil serves as a pump flow stability marker and is not involved in the linearity assessment of caffeine.
- Its presence allows users to monitor system performance without interfering with the primary qualification objective.

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