

Range the UV-vis Calibration Kit Operates - Tech Information

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The MICROSOLV UV-Vis Calibration Kit™ is designed to support calibration in the UV (200–400 nm) and Visible (400–780 nm) spectral regions. It includes:

- Potassium dichromate for absorbance accuracy
- Holmium oxide for wavelength accuracy
- Potassium iodide for stray light assessment

These components are suitable for compliance with USP <857>, but only within the wavelength ranges covered by the included solutions.

This kit does not support calibration in the Near-Infrared (NIR) range, which typically spans 780–3300 nm, depending on the spectrophotometer. NIR calibration requires different standards and procedures not included in this kit.

For reference, the chart below outlines the acceptable criteria and wavelength ranges defined in USP <857>. The highlighted section indicates the specific regions addressed by our calibration kit.

| Method | UV (200–400 nm) | Vis (400–780 nm) | Vis/NIR (400–900 nm) |
|--|--|--|--|
| Mercury (Hg) emission lines | Accuracy ± 1 nm Precision ≤ 0.5 nm | Accuracy ± 2 nm Precision ≤ 0.5 nm | — |
| Deuterium (D ₂) emission lines | — | Accuracy ± 2 nm Precision ≤ 0.5 nm | — |
| Cerium oxide solutions | Accuracy ± 1 nm Precision ≤ 0.5 nm | — | — |
| Holmium oxide solutions or glasses | Accuracy ± 1 nm Precision ≤ 0.5 nm | Accuracy ± 2 nm Precision ≤ 0.5 nm | — |
| Didymium solutions or glasses | — | — | Accuracy ± 2 nm Precision ≤ 0.5 nm |