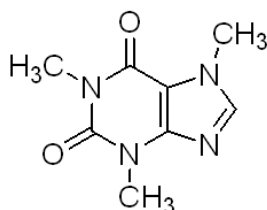


Product Information

Caffeine
Sigma Reference StandardCatalog Number **C1778**
Lot Number 068K8730
Store at Room TemperatureCAS RN 58-08-2
Synonyms: 1,3,7-Trimethylxanthine**Product Description**Molecular Formula: C₈H₁₀N₄O₂
Molecular Weight: 194.19

This product meets USP specifications (Current through USP 31, 2nd Supplement) and is traceable to USP Reference Standard lot J1D241.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Dry a portion at 80°C for 4 hours before use. Use promptly. Discard unused material.

Storage/Stability

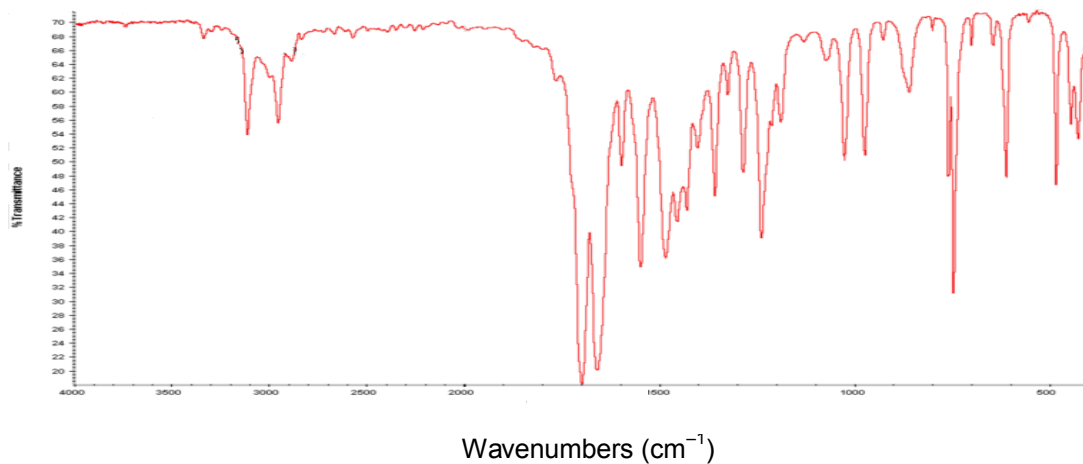
Store in a sealed vial at room temperature.

CMW,MAM 01-09-1

| TEST | USP 31 SPECIFICATIONS | Result Sigma Reference Standard Lot 068K8730 |
|---|---|---|
| Identification A <197M> Infrared absorption | compares to standard | conforms to USP RS Lot J1D241 |
| Identification B | color change as described | passes |
| Melting range <741> | between 235 and 239 °C | 235.0–237.5 |
| Water <921> Method III | not more than 0.5% | passes |
| Residue on ignition <281> | not more than 0.1% | passes |
| Heavy Metals <231> Method II | <0.001% | passes |
| Readily carbonizable substances <271> | no more color than Matching Fluid D | passes |
| Residual Solvents <467> | meets the requirements | passes (no solvents) |
| Other alkaloids | no precipitate is formed | passes |
| Chromatographic Purity | not more than 0.1% of any individual impurity is found; and not more than 0.1% of total impurities is found. | passes |
| Assay <621> High performance liquid chromatography | Not less than 98.5% and not more than 101.0% on the anhydrous basis | 100.0% |

See reverse side for IR spectrum of Sigma Reference Standard

Infrared Spectrum
KBr Dispersion



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