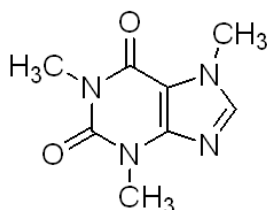


## Product Information

**Caffeine**  
**Sigma Reference Standard**Catalog Number **C1778**  
Lot Number 068K8730V  
Store at Room TemperatureCAS RN 58-08-2  
Synonyms: 1,3,7-Trimethylxanthine**Product Description**Molecular Formula: C<sub>8</sub>H<sub>10</sub>N<sub>4</sub>O<sub>2</sub>  
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&amp;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 02/16-1

TEST	USP 31 SPECIFICATIONS	Result Sigma Reference Standard Lot 068K8730V
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

