



SIGMA-ALDRICH

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Product Information

CAFFEINE (ANHYDROUS) SIGMA REFERENCE STANDARD

Product No. **C1778**

Lot No: 34K8802

Storage Temperature: Room Temperature

Formula: $C_8H_{10}N_4O_2$

Formula Weight: 194.19

CAS No: 58-08-2

Synonyms: 1*H*-Purine-2,6-dione, 3,7-dihydro-
1,3,7-trimethyl-
1,3,7-Trimethylxanthine.

Product Description

This product meets or exceeds USP specifications (Current through USP 27, Supplement 1), and is traceable to USP Reference Standard lot J

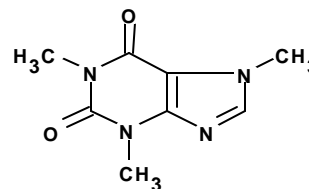
Store in sealed vial at room temperature. Dry a portion at 80 degrees for 4 hours before using. Use promptly. Discard un-used material.

TEST	USP 27 SPECIFICATIONS	Result Sigma R.S. 34K8802
Infrared absorption spectrum Mineral Oil dispersion (197 M)	compares to standard	conforms to USP RS lot J
Identification B	color change as described	passes
Melting range (741)	between 235° and 239°	235.0° - 237.5°
Water <i>Method III</i> (921)	not more than 0.5%	passes
Residue on ignition (281)	not more than 0.1%	passes
Heavy Metals <i>Method II</i> (231)	< 0.001%	passes
Readily carbonizable substances (271)	no more color than <i>Matching Fluid D</i>	passes
Organic volatile impurities <i>Method I</i> (467)	meets requirement	meets requirement
Other alkaloids	no precipitate is formed	passes
Chromatographic Purity	not more than 0.1% of any individual impurity is found and the total of for all impurities is not more than 0.1%	passes
Assay (621)	not less than 98.5% and not more than 101.0% on the anhydrous basis	100.8%

See reverse side for IR spectrum of Sigma Reference Standard.

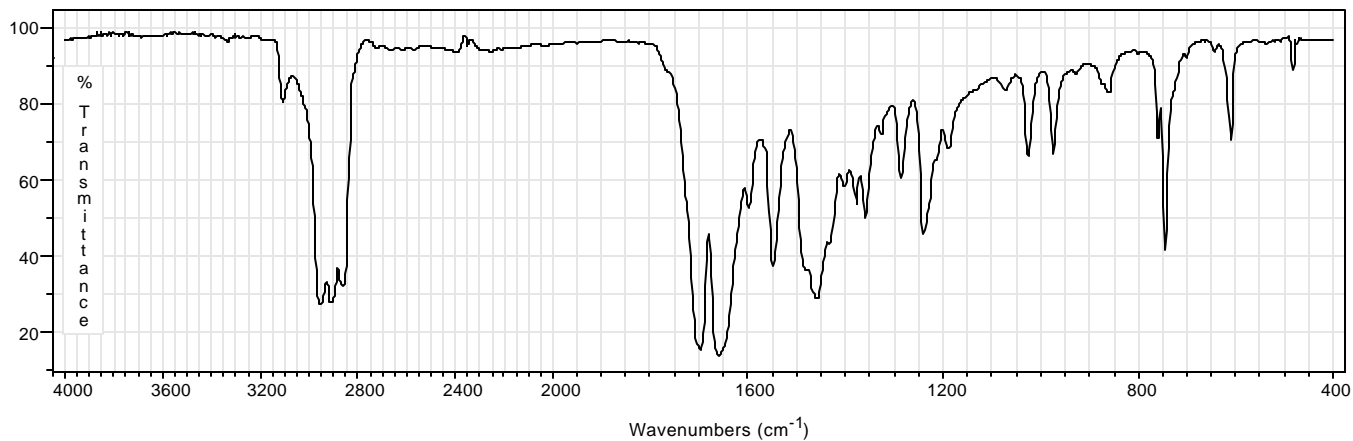
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INFRARED SPECTRUM

Mineral Oil dispersion



3/2004

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Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications.
Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply.
Please see reverse side of the invoice or packing slip.