

3050 Spruce Street Saint Louis, Missouri 63103 USA Telephone 800-325-5832 • (314) 771-5765 Fax (314) 286-7828 email: techserv@sial.com sigma-aldrich.com

ProductInformation

CAFFEINE

Methanol Solution

Product Number Lot Number CAS Number

Concentration

Molecular Formula Molecular Weight DEA Class

C 6035 073K8808 [58-08-2]

1.00 mg Caffeine/ml GC grade methanol (conc. verified by UV)

 $C_8H_{10}N_4O_2$ 194.2

Formulation of a non controlled

substance

Synonyms Stability

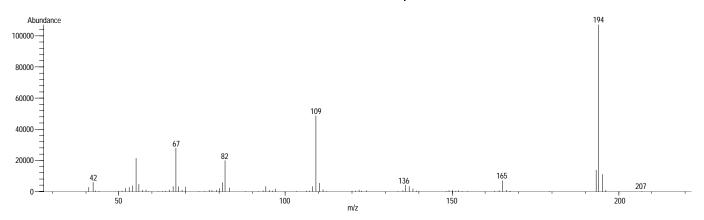
Expiration Date Storage

Coffeinum; Guaranine; Methyltheobromine If stored at 2-8 °C in an air tight container, protected from light, decomposition of the product is less than 1% in 48 months. After opening, concentration may change due to loss of solvent.

May 2008

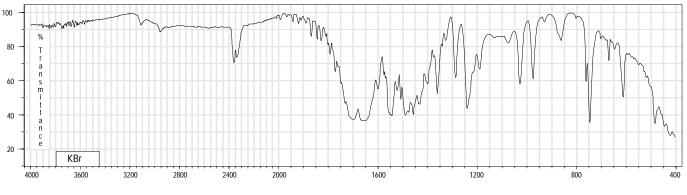
2-8 °C; After opening, transfer contents to small vial provided for your convenience.

70 eV Electron Ionization Mass Spectrum



Hewlett-Packard 5890 Series II Gas Chromatograph Hewlett-Packard 5971 Mass Selective Detector Hewlett-Packard G1034C MS ChemStation (HP-DOS series)

FT-IR



Wavenumbers (cm⁻¹)

Mattson Galaxy 3020 FT-IR

CAFFEINE

Methanol Solution Product Number C 6035 Lot Number 073K8808

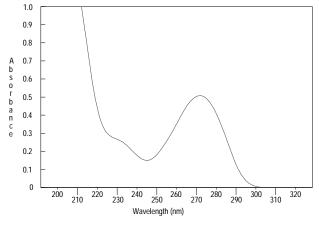
H₃C N CH₃

Ultraviolet Spectrum

Peak 271.8 nm Absorbance 0.508

Solvent 0.2 N H₂SO₄

Dilution 1:99 (v/v)



Bio-Tek Uvikon XL

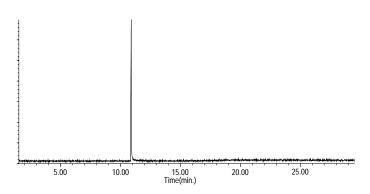
Capillary Gas Chromatography

Column Supelco SPB-1 (Cat. No. 2-4162)

I.D. 0.20~mm Length 15~m Film Thickness $0.20~\mu\text{m}$ Oven Temperature 50°C (2 min.), then $15^{\circ}/\text{min.}$ to 300°C , hold 11 min.

Injector Temperature 250°C, Split **Detector** Hewlett-Packard 5971

Mass Selective Detector (70 eV, 40-500 m/z)



Hewlett-Packard 5890

C 6035/073k8808/08/27/03