



GC CHEMICALS

# SPECIFICATION

## CAFFEINE

### DESCRIPTION

Appearance:

White or almost white ,crystalline powder or silky,white or almost white,crystals.

Solubility:

Sparingly soluble in water,freely soluble in boiling water,slightly soluble in ethanol (96 percent).It dissolves in concentrated solutions of alkali benzoates or salicylates.

### PROPERTIES

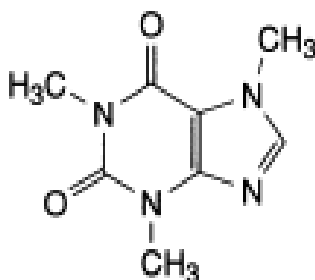
Molecular Formula:  $C_8H_{10}N_4O_2$

Relative Molecular Mass: 194.2

Chemical Name: 1,3,7-Trimethyl-3,7-dihydro-1H-purine-2,6-dione

CAS Number: 58-08-2

Structural Formula:



### HANDLING & STORAGE

Keep in a tightly closed container,stored in a natural temperature ,ventilated area.Protect against physical damage.Containers of this material may be hazardous when empty since they retain product residues (dust ,solids);observe all warnings and

TARTARIC ACID • CREAM OF TARTAR • ROCHELLE SALT

A FULLY OWNED SUBSIDIARY OF TARTAROS GONZALO CASTELLO, SL  
TARTRATE PRODUCERS SINCE 1907

GC CHEMICALS, CORP. Telephone (914) 834-4151 Fax: (914) 834-3761  
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precautions listed for the product.

### **PACKAGED FORM**

Carton: 1 × 20kg

### **Mesh**

>95% through 40 mesh; >95% through 80 mesh

### **COMPENDIAL REQUIREMENTS**

Caffeine meets all requirements of EP8.0, BP2014, USP37, FCC8, when tested according to these compendia.

**【Characters】** White, crystalline powder or silky, white or, crystals

**【Identification】** (FCC)

A、Chemical reaction Positive reaction

B、Infrared absorption Conforms to the caffeine Reference Spectrum

### **【Test】**

Appearance of solution Clear 、 colorless (EP/BP)

Heavy metals  $\leq 10\text{ppm}$  (USP)

Sulphates  $\leq 500\text{ppm}$  (EP/BP)

Acidity Not more than 0.2ml of 0.01M sodium hydroxide (EP/BP)

Organic impurities

-Any individual impurity  $\leq 0.1\%$  (USP)

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-Total impurities	≤0.1% (USP)
Related substances	
-Each impurity A、 B、 C、 D、 E、 F	≤0.10% (EP/BP)
-Each unspecified impurity	≤0.10% (EP/BP)
-Total impurities	≤0.1% (EP/BP)
Lead	≤1mg/kg (FCC)
Other alkaloids	No precipitation generated(FCC)
Melting point	235°C~237.5°C(FCC)
Readily carbonizable substances	Conform to the requirement (FCC)
Loss on drying	≤0.5%(EP/BP)
Sulphate ash	≤0.1%(USP)
<b>【Assay】</b>	98.5~101.0% (USP)

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