

## Caffeine (CAS number- 58-08-2 )

SPECIFICATIONS. CAFFEINE ANHYDROUS BP, USP

TAJNW-CCTWAMT770

Taj Active Pharmaceuticals Ingredients (CNS STIMULANT)

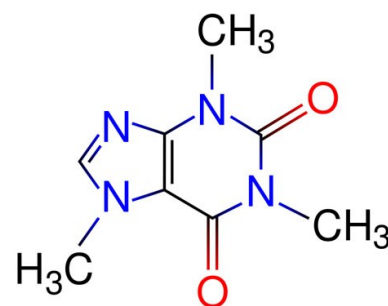
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Active Pharmaceutical Ingredients  
TAJ PHARMACEUTICALS LIMITED INDIA



Raw Material / Chemicals Index

Taj Pharmaceuticals Ltd.  
Caffeine BP / USP  
CAS No. 58-08-2



### STANDARD TESTING SPECIFICATIONS

#### CAFFEINE ANHYDROUS BP, USP

**Product information Grade** Ph Eur, BP, USP

Synonyms: 7-Methyltheobromine, 1,3,7-Trimethylxanthine, 3,7-Dihydro-1,3,7-trimethyl-1H-purine-2,6-dione Hill

Formula C<sub>8</sub>H<sub>10</sub>N<sub>4</sub>O<sub>2</sub> HS Code 2939 30 00

EC number : TAJNW-CCTWAMT770

Molar mass 194.19 g/mol

EC index number TAJNW-CFV

**CAS number : 58-08-2**

**1. Description : A white, crystalline powder or silky, white crystals, sublimes readily.**

2. Solubility : Sparingly soluble in water, freely soluble in boiling water, slightly soluble in ethanol. It dissolves in concentrated solutions of alkali benzoates or salicylates.

3. Identification : **A. Melting Point: 234° C to 239° C**

B. Infrared absorption spectrophotometry

C,D. Chemical Test

E. Loss on drying

F. Reaction of xanthines

4. Appearance of solution : To meet the test.

5. Acidity : Not more than 0.2ml of 0.01M NaOH is required

6. Related Substances : Thin-Layer Chromatography

7. Sulphates : Not more than 500 ppm

8. Heavy Metals : Not more than 10 ppm Pb

9. Loss on drying : Not more than 0.5%

10. Sulphated Ash : Not more than 0.1%

### **11. Assay**

**(on dried basis)**

**: Not less than 98.5%**

**Not more than 101.5%**

### **Transport information**

Declaration (railroad and road) ADR, RID UN 5566 Alkaloidsalze, fest, n.a.g.(COFFEIN), 4.1, III

Declaration (transport by sea) IMDG-Code UN 5566 ALCALOID SALTS, SOLID, N.O.S.(CAFFEINE), 4.1, III

Declaration (transport by air) IATA-DGR UN 5566 ALCALOID SALTS, SOLID, N.O.S.(CAFFEINE), 4.1, III

### **Toxicological data**

LD 50 oral LD50 rat 261 - 381 mg/kg

LD 50 dermal LD50 rat > 2000 mg/kg

### **Specifications**

#### **Assay**

- perchloric acid titration, calculated on dried substance 98.5 - 101.0 %

- HPLC 98.5 - 101.0 %

Identity passes test

Appearance of solution (1 %; water) passes test

Acidic substances passes test

Sulphate (SO<sub>4</sub>) ≤ 0.0500 %

Heavy metals (as Pb) ≤ 0.001 %

Chloroform (HS-GC) ≤ 60 ppm

related substances (HPLC, EP)

- Highest single impurity ≤ 0.10 %

- Sum of all impurities ≤ 0.1 %

chromatographic purity (USP)

- Highest single impurity ≤ 0.10 %

- Sum of all impurities ≤ 0.1 %

Theophylline (HPLC) ≤ 0.10 %

Other residual solvents (Ph.Eur./USP/ICH) excluded by production process

Sulfated ash ≤ 0.1 %

Loss on drying (105 °C) ≤ 0.5 %


Residues of metal catalysts or metal reagents acc. to EMEA/C HMP/SWP/4446/2000 are not likely to be present.

### Corresponds to Ph Eur, BP, USP


#### Chemical and physical data

Ignition temperature	>600 °C
Solubility	20 g/l (20 °C)
Melting point	235 - 239 °C
Molar mass	194.19 g/mol
Density	1.23 g/cm <sup>3</sup> (18 °C)
Bulk density	300 - 600 kg/m <sup>3</sup>
pH value	5.5 - 6.5 (10 g/l, H <sub>2</sub> O, 20 °C)
Vapor pressure	20 hPa (80 °C)

#### Safety information according to GHS

Hazard Statement(s)	H301: Toxic if swallowed.
Signal Word	Danger
Hazard Pictogram(s)	
Storage class	10 - 13 Other liquids and solids
WGK	WGK 1 slightly water endangering 3
Disposal	Relatively unreactive organic reagents should be collected in container A. If halogenated, they should be collected in container B. For solid residues use container C.

#### Safety information

R Phrase	R 22 Harmful if swallowed.
Categories of danger	harmful
Hazard Symbol	 Harmful

#### Packaging

<b>Plastic bottle</b>	<b>1KG</b>
<b>Fibre carton</b>	<b>50 kg</b>

Origin: INDIA

We have experience in Exporting and Manufacturing of all Countries and Overseas medicines in quick reliable manner and we are very interested to start collaboration with your company or organisation!



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**\*\*\* (CNS STIMULANT)**