



# Thimerosal

Meets USP-NF, EP, BP and IP testing specifications

#### Product Code: TC470M

#### **Product Description :**

Molecular weight: 404.81 Molecular formula: C<sub>9</sub>H<sub>9</sub>HgNaO<sub>2</sub>S CAS No.: 54-64-8

### **Quality Control:**

Appearance (USP) White to light cream-colored, crystalline powder

## Appearance (EP, BP)

White or almost white, crystalline powder

Appearance (IP) White to light cream, crystalline powder

**Solubility (USP)** Freely soluble in water, soluble in alcohol, practically insoluble in ether

#### Solubility (EP, BP)

Freely soluble in water, sparingly soluble or soluble in ethanol (96%), practically insoluble in methylene chloride

#### Solubility (IP)

Freely soluble in water and in ethanol (95%), practically insoluble in ether

pH (0.8% in water) : (EP, BP)

6.00 - 8.00

#### pH (1% in water) : (IP)

6.00 - 8.00 **pH (1% in water) : (USP)** ~6.70

#### Appearance of solution (EP, BP)

8% solution in water is not more opalescent than reference suspension II and not more intensely coloured than reference solution B6

Identification A, melting range : (EP,BP)

103 - 115°C

Identification A, FTIR : (USP) Matches with the standard pattern Identification A : (IP) Pale yellow precipitate is produced **Identification B : (USP)** A pale yellow precipitate is formed **Identification B, FTIR : (EP, BP)** Matches with the standard pattern **Identification B : (IP)** Passes Identification C : (USP) The retention time of the major peak of the sample solution corresponds to that of the standard solution, as obtained in the assay Identification C : (EP, BP) Passes **Identification D : (EP, BP)** 8% solution in water gives reaction (a) of sodium Mercury ions, UV : (USP) <= 0.70%**Ether-soluble matter : (IP)** Weight of residue not more than 3 mg Inorganic mercury compounds (EP, BP, IP) <= 0.70%Loss on drying : (USP, IP, EP, BP)  $\leq 0.50\%$  (dry to constant weight under vacuum over phosphorus pentoxide, pressure not exceeding 0.7 kPa for 24 h) **Organic impurities, system suitability : resolution (USP)** min. 3.5 between the thimerosal and thimerosal related compound A peaks **Organic impurities, system suitability : RSD (USP)** <= 3.00%Organic impurities, thiosalicylic acid : RSD (USP) <= 0.10%

Organic impurities, thimerosal related compound A: RSD (USP) <= 0.10% Organic impurities, any other individual unspecified impurity :(USP) <= 0.10%**Organic impurities, total impurities : (USP)** <= 1.00%Assay, system suitability : resolution (USP) min. 3.5 between the thimerosal and thimerosal related compound A peaks Assay, system suitability : RSD (USP) <= 0.73% Assay (HPLC, on dried basis) : (USP) 97.00 - 102.00% Assay (NH<sub>4</sub>SCN Titration, on dried basis) : (IP, EP, BP) 97.00 - 101.00%

#### **Storage and Shelf Life:**

Store below 30°C away from bright light. Shelf life is 48 months. Use before expiry date given on the product label.

#### Disclaimer :

Revision : 03/2024

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