FORMAT FOR SYNOPSIS OF INDIAN STANDARDS

Number and Title of the Indian Standard:

Doc TXD 07 (14182)
IS 17338:2019

Textile Dyestuffs – Determination of Hexavalent Chromium (Cr VI) Content in Water Soluble Dyes

Scope:

This standard specifies the following three methods determining chromium (VI) in water soluble dyes under defined conditions:

1.1 Method 1: Activated carbon solid phase extraction followed by derivatization and color measurement by Spectrophotometer.

The method described is suitable to quantify the chromium (VI) content in water soluble dyes down to 3.0 mg/kg. This method is applicable to all types of water soluble dyes. Cr(VI) content in water soluble dyes like Reactive yellow HE 6G, Reactive red 218, Turquoise blue HGN, Reactive navy blue RX, Reactive black 5A etc. have been validated by this method.

1.2 Method 2: HPLC-post column derivatization followed by Spectrophotometer analysis

The method described is suitable to quantify the chromium (VI) content in water soluble dyes down to 3.0 mg/kg. This method is applicable to all types of water soluble dyes. Cr(VI) content in water soluble dyes like Reactive yellow HE 6G, Reactive red 218, Turquoise blue HGN, Reactive navy blue RX, Reactive black 5A etc. have been validated by this method.

1.3 Method 3: Pre column derivatization followed by HPLC analysis

The method described is suitable to quantify the chromium (VI) content in water soluble dyes down to 1.0 mg/kg. This method is applicable to all types of water soluble dyes. Cr(VI) content in water soluble dyes like Reactive yellow HE 6G, Reactive red 218, Turquoise blue HGN, Reactive navy blue RX, Reactive black 5A etc. have been validated by this method

a) Salient features of content:

Amount of chromium (VI) in water soluble dyes/pigments determined by this method after extraction with an aqueous alkaline mixture of Sodium hydroxide and sodium carbonate through activated carbon, solid phase extraction cartridge.

b) Types/Grades/Classes, if any covered in the standard: None