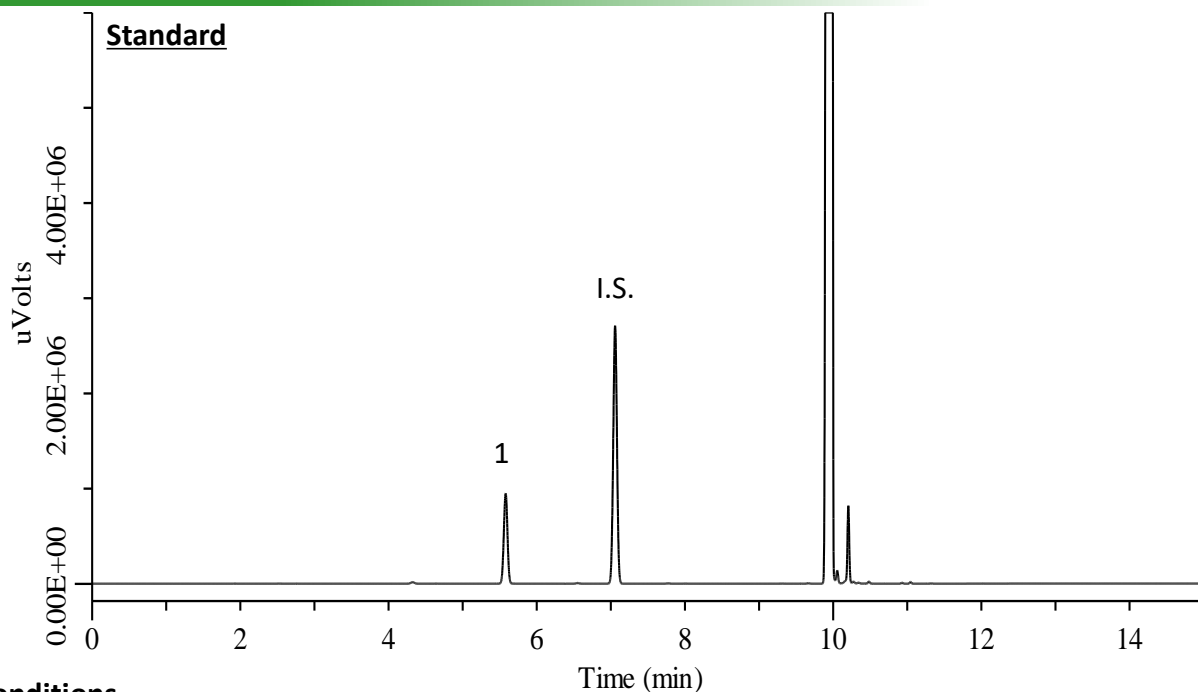


Quantitative Test for Hydroxypropylcellulose with Reference to the Japanese Pharmacopoeia, 17th Edition

The test for hydroxypropyl cellulose was harmonized in the three pharmacopoeias of Japan, Europe and the United States. Based on the revision in the Japanese Pharmacopoeia 17th edition (JP17) the assay method was revised and changed from a conventional packed column-TCD test to a capillary column-FID test.

This application reports analysis using an InertCap 1 non-polar capillary column in accordance with Japanese Pharmacopoeia, 17th Edition with excellent results.

Assay



Conditions

System : GC - FID
Column : InertCap 1
 0.53 mm I.D. x 30 m df = 3.0 μ m
Col. Cat. No. : 1010-11448
Col. Temp. : 40 °C(3 min) - 10 °C/min - 100 °C
 -50 °C/min - 250 °C (3 min)
Carrier Gas : He 7.82 mL/min Constant Flow
Injection : Split 1:50
 180 °C
Injection Vol. : 2 μ L
Detection : FID Auto Range
 280 °C
Sample : Standard solution

Analyte

1. Isopropyl iodide
 I.S. Methylcyclohexane
 Resolution (1, I.S.) : 15.95 (≥ 2.0)
 Relative retention time (1 to I.S.) : 0.79 (about 0.8)
 RSD of the response factor
 Calculation (F)(%) ($n=6$) : 0.29 (≤ 2.0)

* () The conditions specified in the JP are as follows:

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