

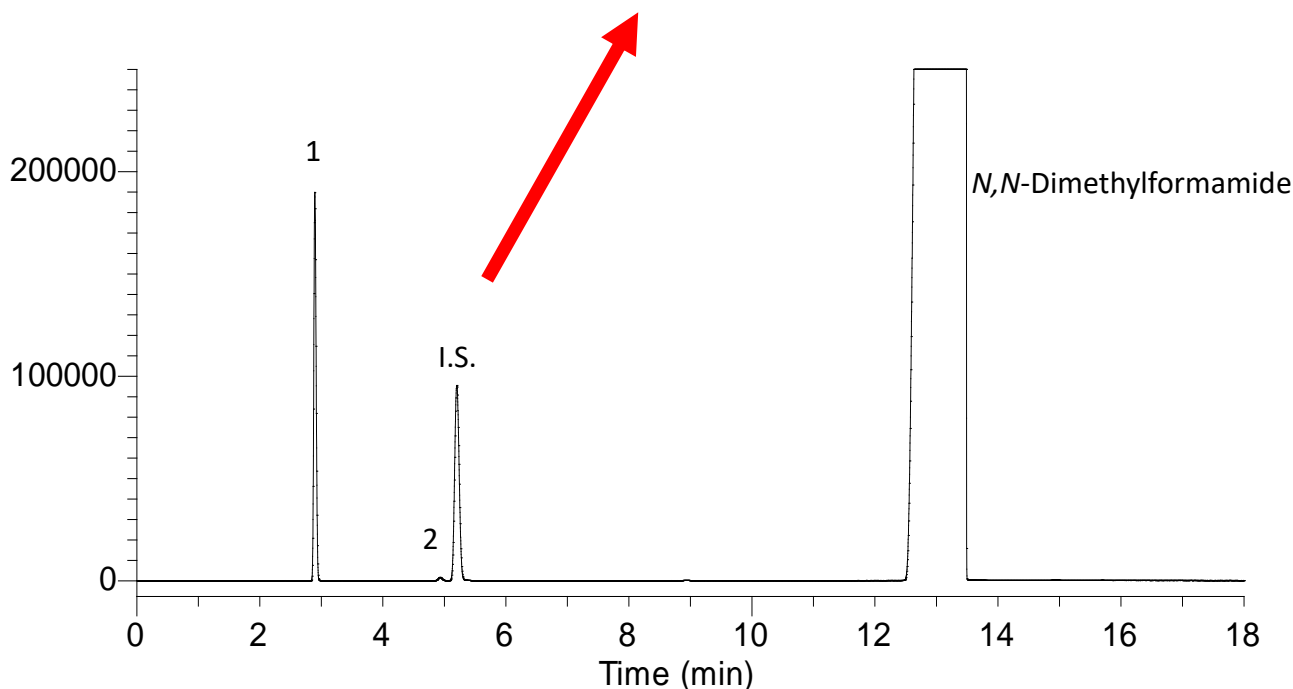
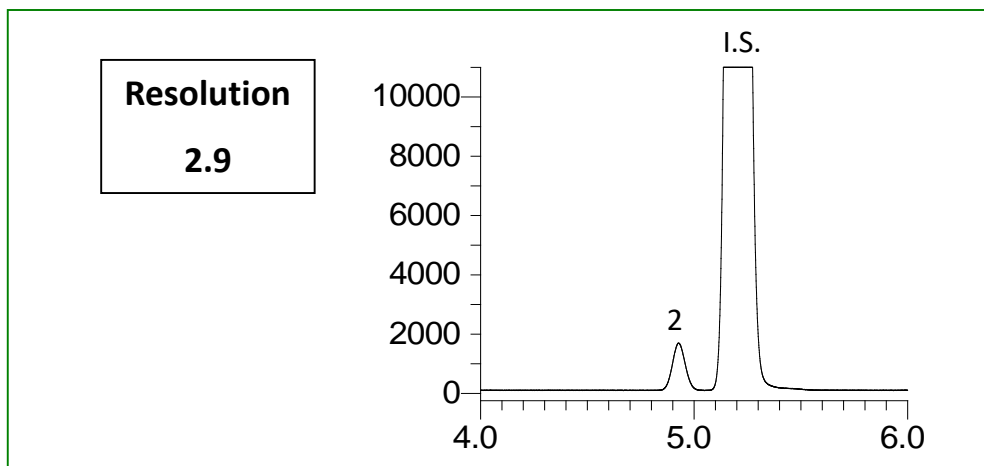
## Purity Test of Colchicine with Reference to the Japanese Pharmacopoeia

Colchicine is used to control gout and treat Behcet's disease.

In this application, the purity test for colchicine described in the Japanese Pharmacopoeia was used as a reference for the analysis.

A standard was prepared by diluting ethyl acetate, chloroform, and 1-propanol (internal standard) with *N,N*-dimethylformamide. The resolution of chloroform and 1-propanol (internal standard) and the relative standard deviation of ethyl acetate and chloroform were confirmed. Excellent results were obtained.

### Example: Measurement of standard



#### Analyte :

1. Ethyl acetate 4.0 mL/L
2. Chloroform 0.2 mL/L
- I.S. 1-Propanol 3.2 mL/L

\*Standard mixture

## Conditions

<b>System</b>	: GC - FID
<b>Column</b>	: InertCap Pure-WAX 0.53 mm I.D. x 30 m df = 1.00 $\mu$ m
<b>Col. Temp.</b>	: 60 °C (7 min hold) - 40 °C/min - 100 °C (10 min hold)
<b>Carrier Gas</b>	: He 29 cm/sec
<b>Injection</b>	: Split flow 100 mL/min 130 °C
<b>Detection</b>	: FID Range 10 <sup>1</sup> 200 °C
<b>Sample Size</b>	: Analyte in N,N-Dimethylformamide 2.0 $\mu$ L

## Relative standard deviation

### Repeatability of area (ratio with internal standard) (n = 3)

	Ethyl acetate	Chloroform
1 st	1.008	0.0127
2 nd	1.011	0.0126
3 rd	1.008	0.0125
Ave.	1.009	0.0126
SD	0.001494	0.000106
RSD (%)	0.15	0.85

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