

# SHINWA EXPRESS

Application

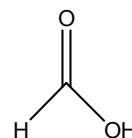
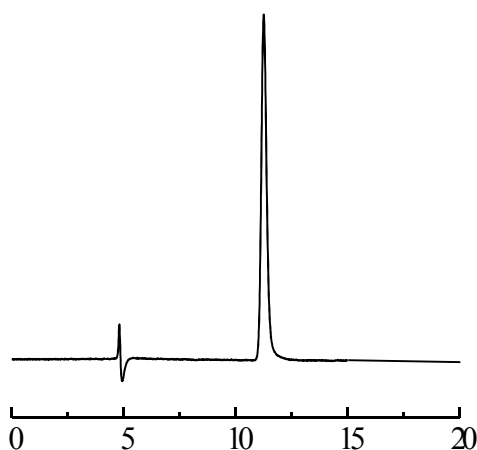
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## Analysis of povidon under Japanese Pharmacopoeia of article 17

Analytical method for povidon under Japanese Pharmacopoeia of article 17 has been amended. Shown below is a analysis of povidon performed using ULTRON PS-80H and ULTRON VX-ODS columns.

### Purity test (formic acid)

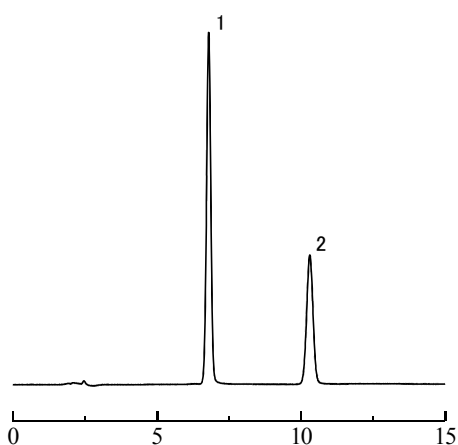


System suitability  
 Number of theoretical plates: 10900  
 (acceptance: over 1000)  
 Symmetry factor: 1.16  
 (acceptance: 0.5~1.5)  
 RSD (area of peak): 1.22%  
 (n=6 acceptance: less than 2.0%)

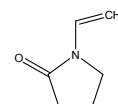
Column: ULTRON PS-80H (10  $\mu$ m)  
 Column size: 300 mm L x 8.0 mm I.D.  
 Mobile phase: 0.14% HClO<sub>4</sub> aq  
 Flow rate: 1.0 mL/min

Column temp.: 30°C  
 Detection: UV-210 nm  
 Sample: Formic acid 10 mg/L (in water)  
 Injection vol.: 50  $\mu$ L

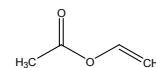
### Purity test (1-vinyl-2-pyrrolidone)



1. 1-Vinyl-2-pyrrolidone



2. Vinyl acetate



System suitability  
 Resolution: 10.33  
 (acceptance: over 2.0)  
 RSD (area of peak): 0.30%  
 (n=6 acceptance: less than 2.0%)

Column: ULTRON VX-ODS (5  $\mu$ m) / ULTRON VX-ODS. G (5  $\mu$ m)  
 Column size: 150 mm L x 4.6 mm I.D. / 10 mm L x 4.0 mm I.D.  
 Detection: UV-235 nm  
 Mobile phase: H<sub>2</sub>O/CH<sub>3</sub>CN = 9/1  
 Flow rate: 1.0 mL/min

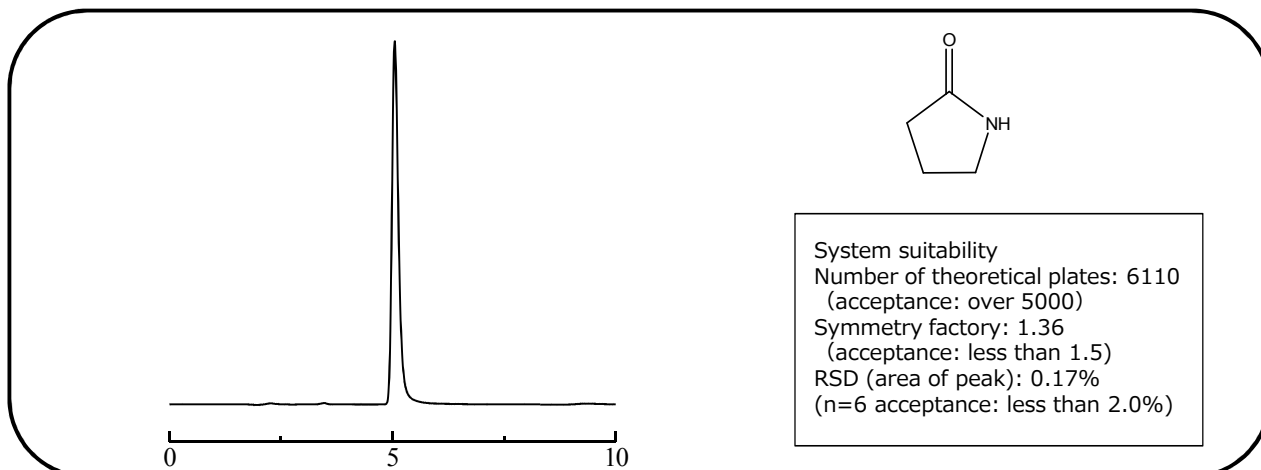
Column temp.: 40°C  
 Sample: 1-Vinyl-2-pyrrolidone 1 mg/L  
 Vinyl acetate 50 mg/L  
 Injection vol.: 20  $\mu$ L



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## Purity test (2-pyrrolidone)



Column: ULTRON VX-ODS (5  $\mu$ m) / ULTRON VX-ODS. G (5  $\mu$ m)  
 Column size: 150 mm L x 4.6 mm I.D. / 10 mm L x 4.0 mm I.D.  
 Detection: UV-205 nm  
 Mobile phase: H<sub>2</sub>O/CH<sub>3</sub>OH = 19/1  
 Flow rate: 0.8 mL/min

Column temp.: 40°C  
 Sample: 2-pyrrolidone 30 mg/L (in mobile phase)  
 Injection vol.: 50  $\mu$ L

### ■ Analytical column specifications ■

Product name	Particle size ( $\mu$ m)	Column dimensions Length × I.D. (mm)
ULTRON PS-80H	10	300 × 8.0
ULTRON PS-80H.G	10	50 × 8.0
ULTRON VX-ODS	5	150 × 4.6
ULTRON VX-ODS.G	5	10 × 4.0

#### ● Protecting columns using guard columns

By using guard columns together with analytical columns, analytical columns can be protected from contamination, enabling longer column lifetimes. The use of guard columns is particularly recommended when analyzing samples containing large amounts of impurities.



Please feel free to contact us with questions related to analyses. Column screening services are also available.

Please be aware that specifications are subject to change without prior notification.