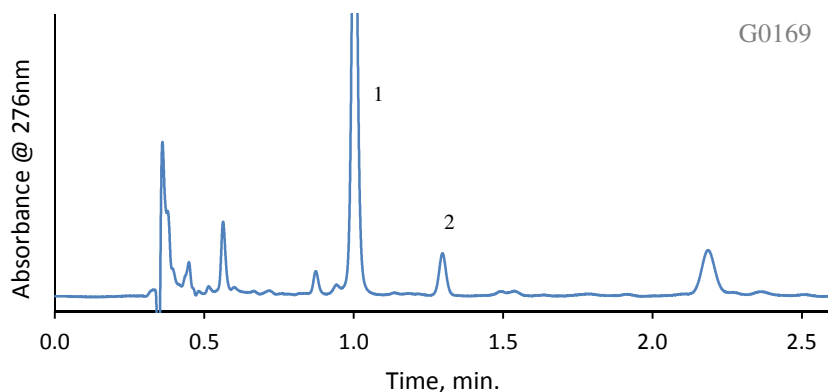


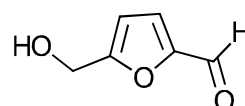
Separation of Patulin and HMF on HALO® 90 Å Biphenyl



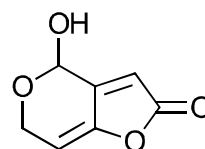
PEAK IDENTITIES:

1. 5-(Hydroxymethyl) furfural
2. Patulin

STRUCTURES:



5-(Hydroxymethyl) furfural



Patulin

TEST CONDITIONS:

Column: HALO 90Å Biphenyl, 2.7 μ m, 2.1 x 100mm

Part Number: 92812-611

Mobile Phase A: water with 0.1% acetic acid

Mobile Phase B: acetonitrile with 0.1% acetic acid

Gradient:	<u>Time</u>	<u>%B</u>
	0.0	5
	2.6	90

Flow Rate: 0.6 mL/min

Initial Pressure: 285 bar

Temperature: 40°C

Detection: UV 276 nm, PDA

Injection Volume: 1.0 μ L

Sample: Apple Juice spiked with HMF and 50 ng/mL Patulin

Data Rate: 100 Hz

Response Time: 0.025 sec

Flow Cell: 1 μ L

LC System: Shimadzu Nexera X2

In the United States the FDA maintains different limits for mycotoxins in many foods and beverages. Patulin, a mycotoxin that is produced from mold on a variety of fruits has a limit of 50 μ g/kg. For analysis, patulin was spiked into apple juice and the sample was cleaned up using solid phase extraction. Interfering analytes such as 5-(Hydroxymethyl) furfural (HMF) can make analysis more challenging. This separation shows the two compounds separated on a HALO® Biphenyl column with enough resolution to easily check for sample recovery.