

## PHENOLICS IN ECHINACEA, COMMERCIAL PRODUCTS OR WHOLE LEAF

## HPLC METHOD

COLUMN:	Symmetry® C <sub>18</sub> , 4.6 x 250 mm, 5 µm
PART NUMBER:	WAT054275
MOBILE PHASE A:	0.1% phosphoric acid
MOBILE PHASE B:	Acetonitrile
GRADIENT:	10% B initial, then linear gradient to 22% B
	in 13 min, to 40 % B in 40 min
FLOW RATE:	1.5 mL/min
INJECTION VOLUME:	10 µL
TEMPERATURE:	35 °C
DETECTION:	UV @ 330 nm



## OASIS® MAX METHOD FOR PHENOLICS IN ECHINACEA

Conditions for Oasis® MAX Cartridge, 3 cc/60 mg Part Number 186000367



## SAMPLE PRE-PREPARATION

100 mg sample is extracted with 25 mL of ethanol:water (70:30) 1 mL of the ethanolic extract is diluted 1:3 with water (~ pH 7)

- Recovery, measured with certified standards at 100 ppm in reagent water, was greater than 85 % for all compounds
- All analyses gave results within ± 35 % of the expected values with the exception of the liquid supplement (see goldenseal analysis)
- The selective SPE extraction and cleanup procedure provided a convenient analysis of echinacea phenolics in complex matrix such as in herbal tea