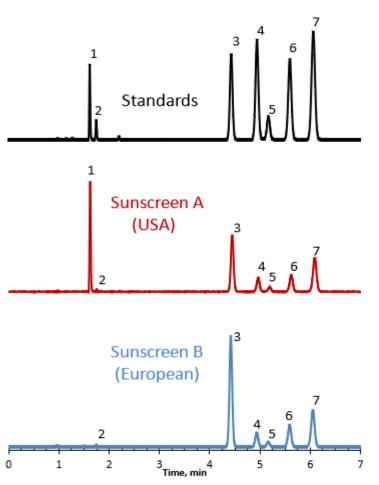


UHPLC Analysis of Sunscreens on Ascentis® Express RP-Amide, 2.7 µm



Peak Number	Compound
1	Oxybenzone
2	Avobenzone Isomer 1
3	Octocrylene
4	Avobenzone Isomer 2
5	Homosalate Isomer 1
6	Octisalate
7	Homosalate Isomer 2

Conditions:

column: Ascentis® Express RP-Amide, 15 cm

x 4.6 mm I.D., 2.7 μm

mobile phase: [A] Water; [B] Acetonitrile

gradient: Hold at 75% B for 7 min; 75% B to 100% B in 3 min; hold at 100% B for

10 min.

flow rate: 1.5 mL/min

column temp.: 30 °C

detector: 300 nm, VWD

injection: 0.5 μL

sample: Sunscreen components, varied

concentration, methanol, ethanol or

1-propanol

Description:

Sunscreens protect skin against damage caused by UV rays from the sun. It is particularly important to use sunscreen during prolonged exposure to sunlight to reduce the risk of skin cancer. The active ingredients that provide this protection can be analyzed by HPLC, as shown here. This application compares the composition of sunscreens from the U.S. and Europe using Ascentis® Express RP-Amide. The samples were treated with ethanol or 1-propanol, centrifuged, and filtered to isolate the analytes of interest.

Materials:

Product Part Number	Description
53931-U	Ascentis® Express RP-Amide, 15 cm x 4.6 mm I.D., 2.7 μm
34860	Methanol
270733	Water
34851	Acetonitrile
34871	1-propanol
59647	Oxybenzone
16633	Avobenzone
02343	Octocrylene

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.



Product Part Number	Description
1311408	Homosalate
52184	Octisalate