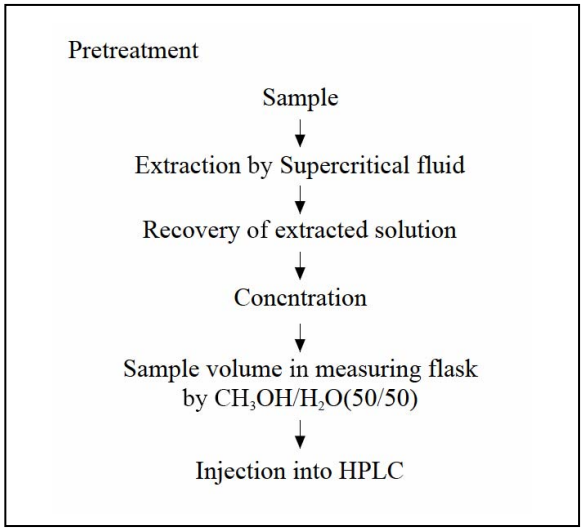
Application Note

820003S

Supercritical Fluid Extraction of Bisphenol A in Epoxy Resin

Bisphenol A considered as endocrine disruptors were extracted using Supercritical Fluid Extraction (SFE) with carbon dioxide and analyzed by reversed-phase HPLC.

Figure 1 shows the chromatograms of the extracts from epoxy resins used for coating of artificial leather, electrical cables, etc..



Conditions

[SFE]	
System:	SCF-201
Extraction vessel:	1 mL
CO_2 flow rate:	3.0 mL/min
CH_3OH flow rate:	0.3 mL/min
Extraction pressure:	25 MPa
Extraction temp.:	80 ºC
Sample:	Synthetic leather Covering for AC cable
[HPLC]	
Column:	CrestPak C18S (4.6 mm I.D. x 150 mm L.)
Eluent:	CH_3OH / H_2O (50/50)
Wavelengths:	Ex 282 nm, Em 306 nm, Gain x 100
Flow rate:	1.0 mL/min
Column temp.:	40 ºC
Sample:	Standard (100 ppb) Extracts of coating material of artificial leather and electrical cable
Injection volume:	10 µL

Keywords: Bisphenol A; STD, epoxy resins; SFE; Fluorescence detection; endocrine disruptor

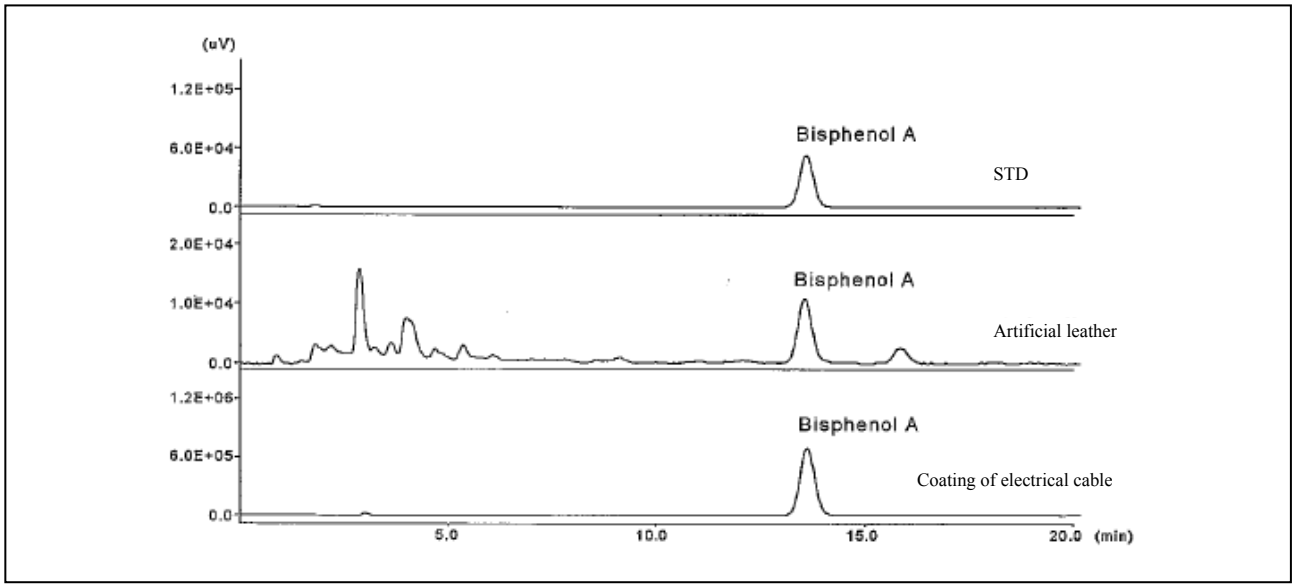


Figure 1 Chromatograms of bisphenol A-STD sample and epoxyresin extraction sample

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