

**Analytical Method of Epichlorohydrin
in Canned Beverages by Purge-and-Trap/GC**

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A sensitive analytical method based on gas chromatography-mass spectrometry with a selected ion monitoring (GC/MS-SIM) with the purge-and-trap concentration and with headspace method (in limited applications) was developed for determining of epichlorohydrin in canned beverages coated with epoxy resin. The calibration curve in the range of 0.5~50ng had correlation coefficient greater than 0.998 and a detection limit of 0.1 μ g /L was obtained using a sample volume of 20ml. The predominant ions of epichlorohydrin produced in MSD using electron ionization(EI) were m/z 57 ([M-Cl]⁺) and 62/64 ([M-CH₂O]⁺). In survey of epichlorohydrin in thirty commercial canned beverage samples, none of them was detected.

key words : epichlorohydrin, beverage, can, epoxy resin