FRONTIER LAB

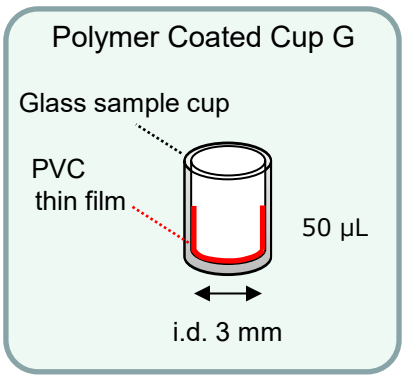
Polymer Coated Cup G

for phthalates analysis

Polymer Coated Cup G is a pyrex glass sample cup whose inner wall has been coated with PVC thin film. When sampling a phthalate solution, the PVC thin film on the inner wall helps retain volatile phthalates such as DMP and DEP. The PVC thin film inhibits evaporation of low boiling compounds. It is particularly useful for analysis using Auto-Shot Sampler with which a long standing-time is required. This product is disposable and intended for single use only.

Features of Polymer Coated Cup G

- Auto-Shot Sampler can be used in analysis of low boiling phthalates using thermal desorption GC/MS.
- Simply add phthalates standard solution and ready to use.



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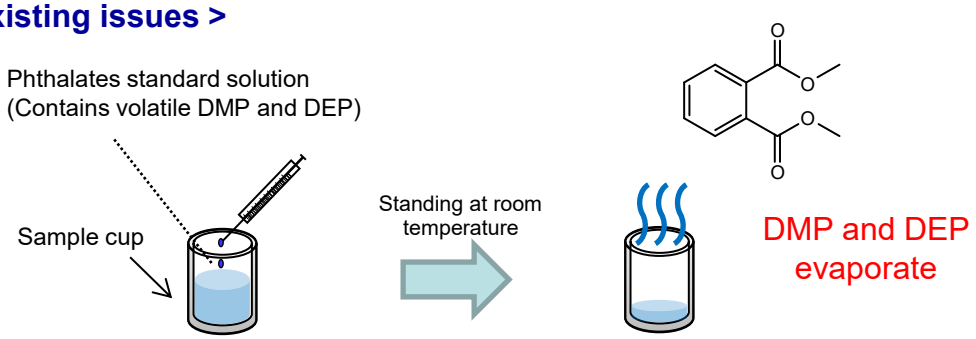

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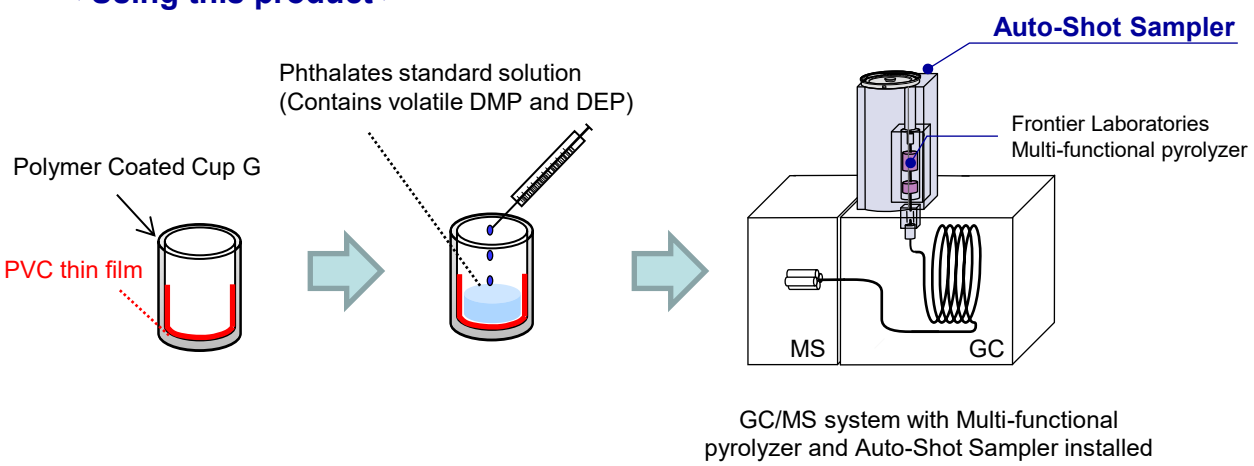


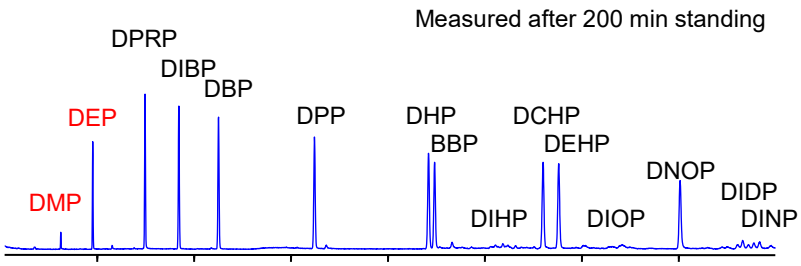
GC/MS system with Multi-functional pyrolyzer and Auto-Shot Sampler installed

1) Place phthalates standard solution in a Polymer Coated Cup G.
2) Set the cup to Auto-Shot Sampler and perform thermal desorption analysis.

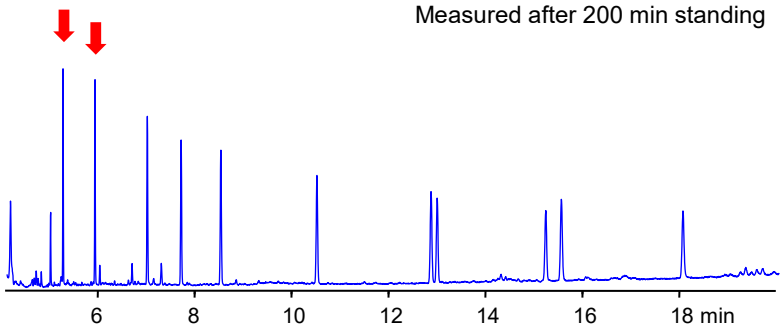
< Retention of 15 different phthalates at room temperature >

A standard solution containing 100 ng each of phthalates shown in the table below which includes volatile DMP and DEP was placed in an uncoated sample cup and a Polymer Coated Cup G. The figures below show chromatograms of the phthalates obtained by thermal desorption GC/MS after the sample cups were allowed to stand for 200 min at room temperature. As clearly shown here, when the Polymer Coated Cup G was used, volatile phthalates, especially DMP and DEP, were retained intact.

1) Uncoated sample cup

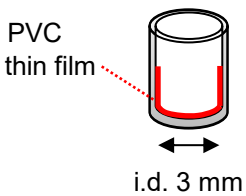


2) Polymer Coated Cup G



Phthalate	Abbr.
1. Dimethyl phthalate	DMP
2. Diethyl phthalate	DEP
3. Di-n-propyl phthalate	DPRP
4. Diisobutyl phthalate	DIBP
5. Di-*n*-butyl phthalate	DBP
6. Di-*n*-pentyl phthalate	DPP
7. Di-*n*-hexyl phthalate	DHP
8. Butyl benzyl phthalate	BBP
9. Diisoheptyl phthalate	DIHP
10. Dicyclohexyl phthalate	DCHP
11. Di (2-ethylhexyl) phthalate	DEHP
12. Diisooctyl phthalate	DIOP
13. Di (*n*-octyl) phthalate	DNOP
14. Diisononyl phthalate	DINP
15. Diisodecyl phthalate	DIDP

Specifications



Volume: 50 µL
PVC film thickness: approx. 2.4 µm (approx. 120 µg)
Material: Pyrex glass (sample cup), PVC (coated film)
Max use temperature: 450 ºC
Other: Plasticizers in PVC removed by Soxhlet extraction

Product name	Product No.	Quantity
Polymer Coated Cup G	PY1-EC50GP-01	10 ea. (each in separate vial), 1 set
Polymer Coated Cup G 5 sets	PY1-EC50GP-05	10 ea. (each in separate vial), 5 sets