

PURIC Water Information

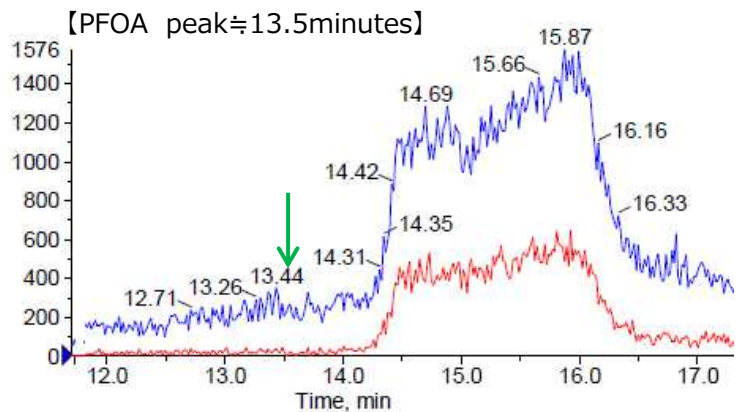
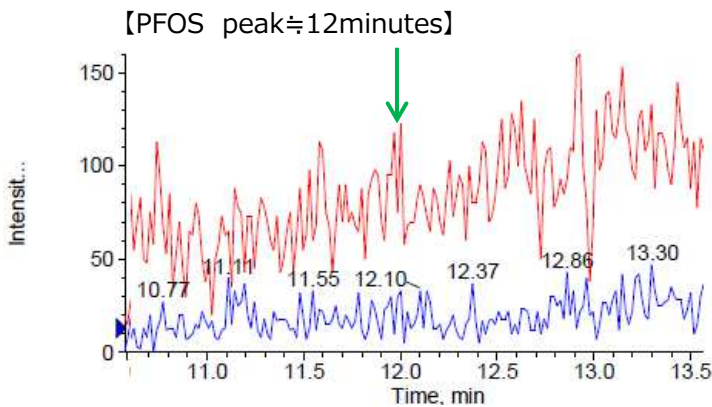
Measurement for organic fluorine compound in UPW

Perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) and its related substances (organic fluorine compound) are used in the material close to our daily environments such as surface preparation agent and coating agent. As those substances are known to remain in the environments and human body, they are restricted in various ways. Internationally, PFOS has been added to the attachment B of POPs (Stockholm convention on Persistent Organic Pollutants) and PFOA has been added to the attachment A of POPs.

The inspection method of PFOS and PFOA are prescribed in the inspection manual by Japan's Ministry of Environment, in which the used water should not have the peaks which are located in the retention time equivalent to PFOS, PFOA, PFOS-¹³C₄ and PFOA-¹³C₂. Actually, as there would be some risks that PFOA blank would be inspected from solutions or analytical equipment, even higher purity of water is required. This material shows the analysis result of PFOS, PFOA of Puric-α UPW by LC/MS/MS.

- Analytical equipment: LC ExionLC, MS 6500QT (Sciex)
- Method: Puric RP-FP-0120 α-MT1 (Organo) UPW (N3) directly installed into equipment

Separation column : RESTEK Raptor ARC-18 (150mm×2.1mm,2.7μm)
 Retention gap column : SHIMADZU Shim-pack XR-ODS II (75mm×2.0mm,2.2μm)
 Mobile phase : A : 20mM Ammonium acetate aqueous solution, B : Methanol
 Column flow rate: 0.25mL/min
 Sample injection amount : 50 μL (PFOS), 35μL (PFOA)
 MS ionization method : ESI-negative



Analysis result

PFOS: <0.1ng/L (LOD:0.1) PFOA: <0.1ng/L (LOD:0.1)

Summary

The result for Puric-α UPW shows that the detected amount of PFOS and PFOA is below target LOD (PFOS:0.1ng/L PFOA:0.2ng/L) prescribed in the inspection manual by Japan's Ministry of Environment, meaning Puric-α is suitable to the solutions for PFOS and PFOA inspection. This is expected to be due to the Puric-α's feature which can minimize the elution of the wetting parts.

ORGANO CORPORATION

2-8, Shinsuna 1-Chome, Koto-ku, Tokyo, 136-8631, Japan
 Standard Equipment Dept.
<https://www.organo.co.jp/english>

Product movie



YouTube



Subscribe

