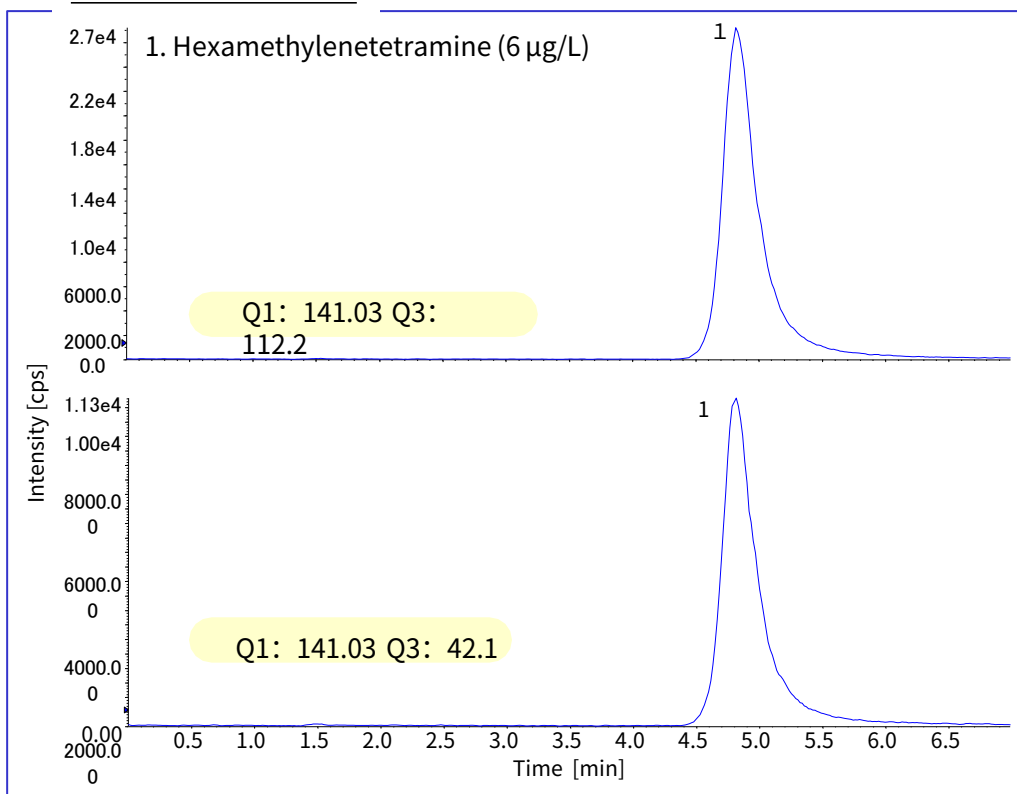


In May 2012, the Japanese Ministry of Health, Labour and Welfare announced that hexamethylenetetramine was assumed as a precursor compound of formaldehyde detected at the Tone-river's drinking water treatment plant in Japan.

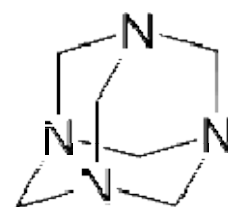
Hexamethylenetetramine is a high polar compound and is difficult to be retained on ODS columns.

In this technical note, we introduce the analysis of Hexamethylenetetramine using 4000 QTRAP LC/MS/MS System (AB SCIEX) and Inertsil Amide column.

Standard Solution



Chemical Structure



Hexamethylenetetramine
(HMTA)

Structures are created using
Chemistry 4-D Draw which is
provided by
ChemInnovation Software, Inc.

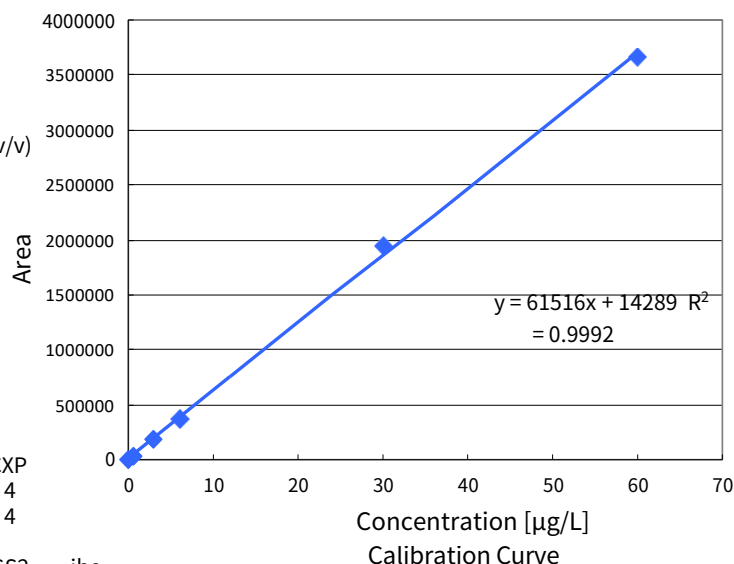
HPLC Conditions

System : LC800
Column : Inertsil Amide 3 μ m, 100 \times 2.1 mm I.D.
Eluent : A) 10 mM Ammonium acetate
 B) 10 mM Ammonium acetate in (CH₃CN/H₂O = 90/10, v/v)
 A/B = 40/60, v/v (Mixed by a gradient mixer)
Flow Rate : 0.2 mL/min
Col. Temp. : 40 $^{\circ}$ C
Detection : MRM (SRM)
Inj. Vol. : 10 μ L

MS/MS (MRM) Conditions

System : 4000 QTRAP (AB SCIEX)
Detection : Compound Q1 Q3 DP EP CE CXP
 HMTA 141.03 112.2 51 10 21 4
 141.03 42.1 51 10 49 4

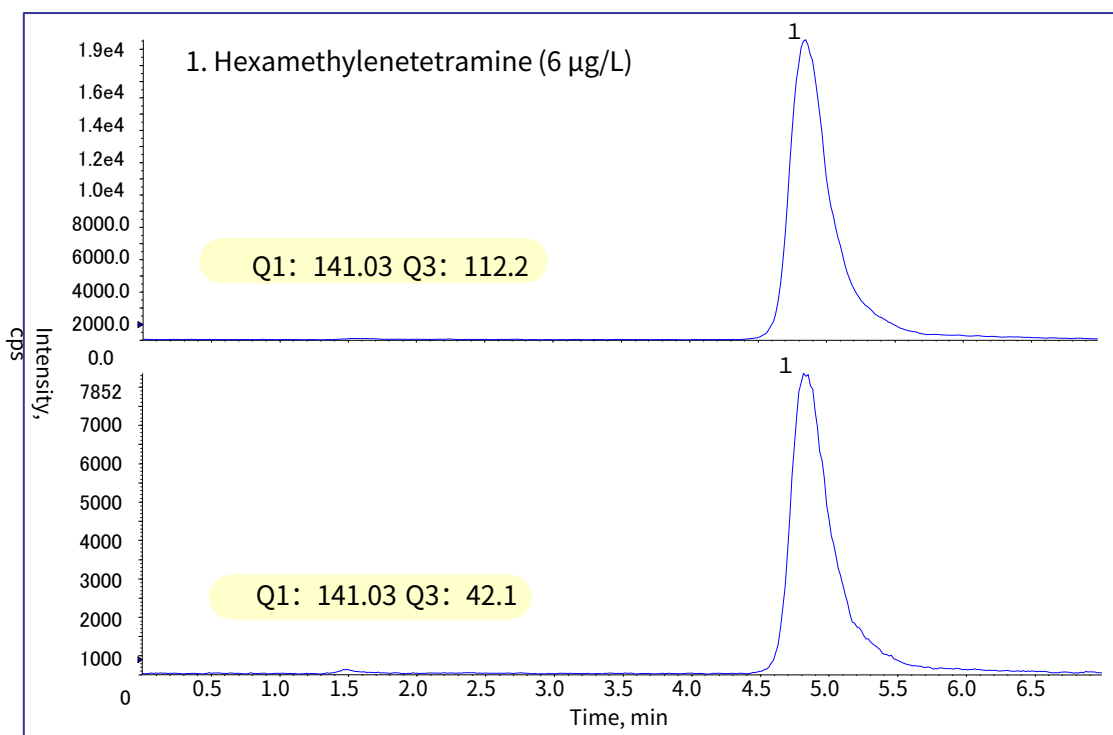
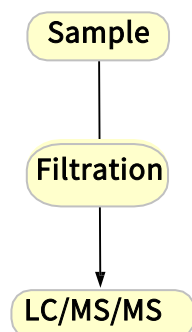
Ion Source : ESI (Positive) CUR CAD IS TEM GS1 GS2 ihe
 20 4 5500 500 70 70 on



Analysis of River Water Example

(Hexamethylenetetramine was added in river water as concentration of 6 µg/L)

Sample Preparation Method Example



HPLC Column

Inertsil Amide 3 µm, 100 × 2.1 mm I.D.
Cat. No. 5020-07864

Syringe Filter

GL Chromato Disk Sample Filters
25A PORE SIZE 0.45 µm
Cat. No. 5040-28512

GL Sciences disclaims any and all responsibility for any injury or damage which may be caused by this data directly or indirectly. We reserve the right to amend this information or data at any time and without any prior announcement.

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