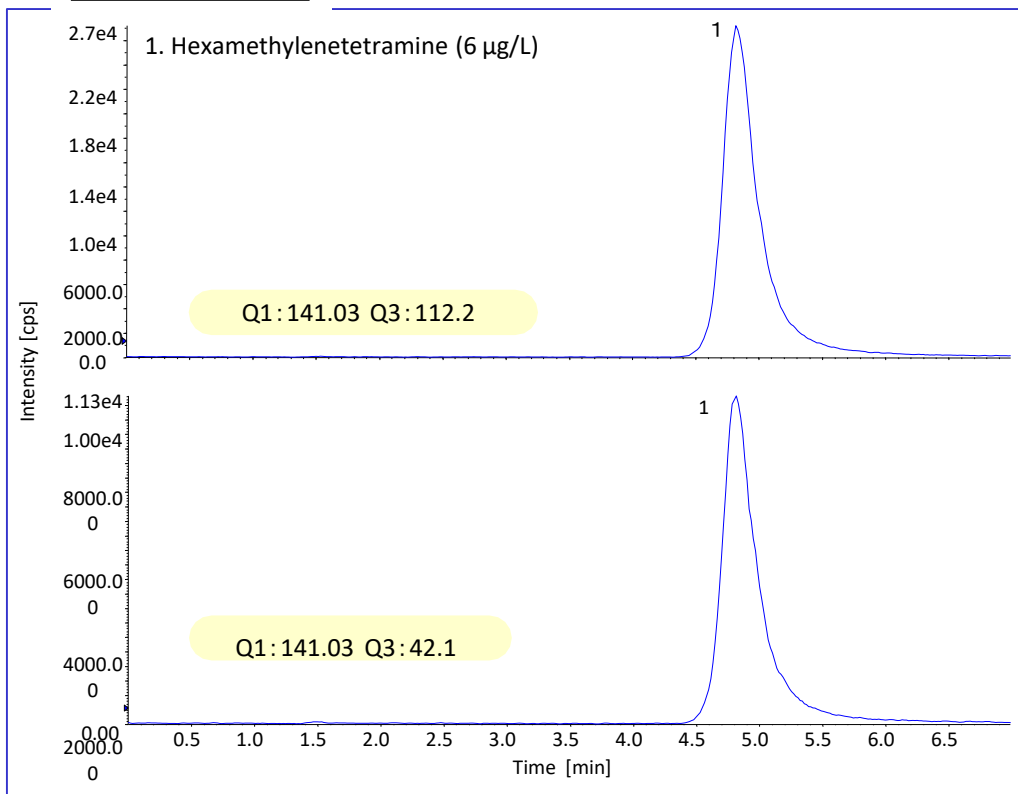


In May 2012, the Japanese Ministry of Health, Labour and Welfare announced that hexamethylenetetramine was assumed as a precursor compound of formaldehyde detected at the Tone-river's drinking water treatment plant in Japan.

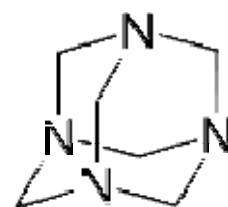
Hexamethylenetetramine is a high polar compound and is difficult to be retained on ODS columns.

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

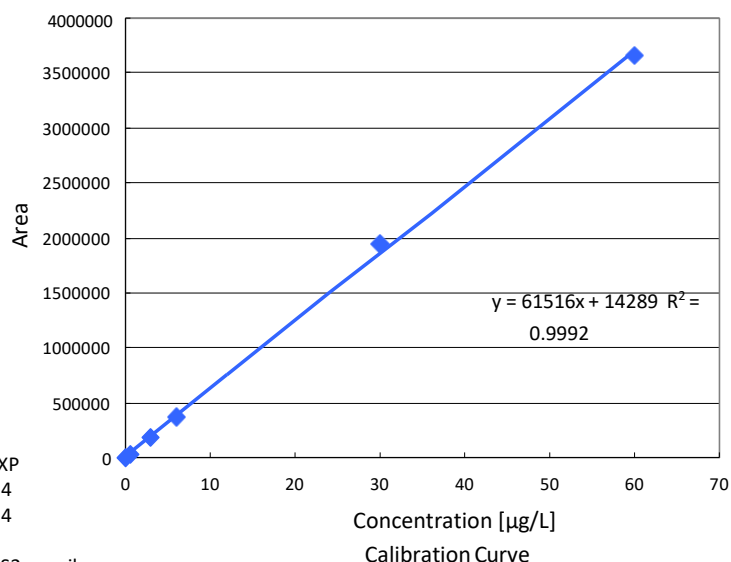
System : LC800
Column : Inertsil Amide 3 µm, 100 × 2.1 mm I.D.
Eluent : A) 10 mM Ammonium acetate
 B) 10 mM Ammonium acetate in (CH₃CN/H₂O = 90/10, v/v) A/B = 40/60, v/v (Mixed by a gradient mixer)
Flow Rate : 0.2 mL/min
Col. Temp. : 40 °C
Detection : MRM (SRM)
Inj. Vol. : 10 µL

MS/MS (MRM) Conditions

System : 4000 QTRAP (AB SCIEX)
Detection : Compound
 HMTA

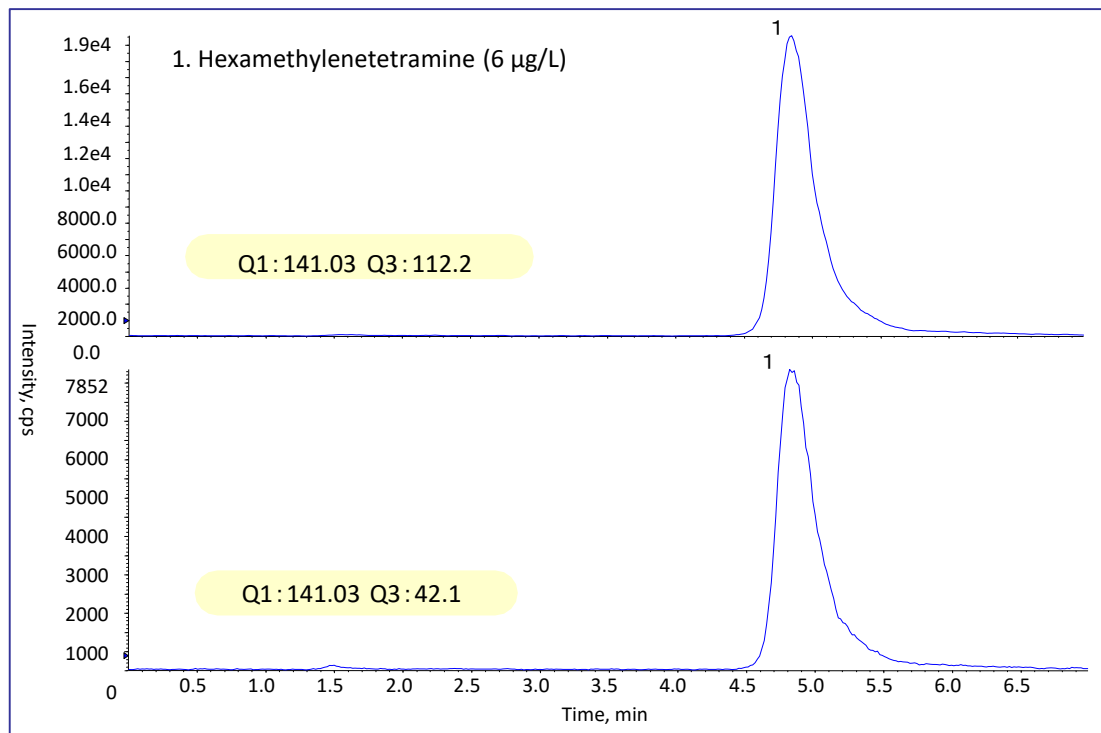
	Q1	Q3	DP	EP	CE	CXP
	141.03	112.2	51	10	21	4
	141.03	42.1	51	10	49	4

Ion Source : ESI (Positive) CUR CAD IS TEM GS1 GS2 ihe on
 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

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GL Sciences, Inc. Japan

22-1 Nishishinjuku 6-Chome
 Shinjuku-ku, Tokyo,
 163-1130, Japan
 Phone: +81-3-5323-6620
 Fax: +81-3-5323-6621
 Email: world@glsc.co.jp
 Web: www.glsciences.com

GL Sciences B.V.

De Sleutel 9
 5652 AS Eindhoven
 The Netherlands
 Phone: +31 (0)40 254 95 31
 Email: info@glsciences.eu
 Web: www.glsciences.eu

GL Sciences (ShangHai) Ltd.

Tower B, Room 2003,
 Far East International Plaza,
 NO,317 Xianxia Road,
 Changning District.
 Shanghai, China P.C. 200032
 Phone: +86 (0)21-6278-2272
 Email: contact@glsciences.com.cn
 Web: www.glsciences.com.cn

GL Sciences, Inc. USA

4733 Torrance Blvd. Suite 255
 Torrance, CA 90503
 Phone: 310-265-4424
 Fax: 310-265-4425
 Email: info@glsciencesinc.com
 Web: www.glsciencesinc.com

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