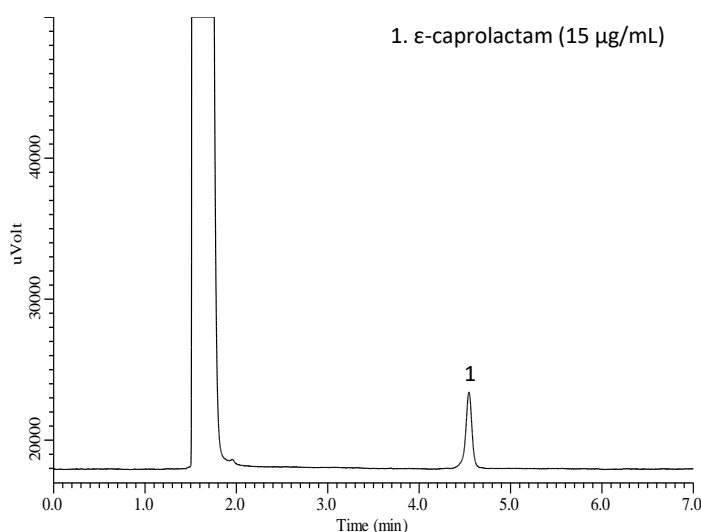


Nylon (polyamide) is a polymer polymerized by amide bonds and include nylon 6 (a polymer of ϵ -caprolactam) and nylon 66 (a polymer of hexamethylenediamine and adipic acid). Nylon has excellent mechanical strength, such as tensile strength, tear strength, and stick strength, it is used in food packaging materials such as chilled frozen and retort foods.

In this application, packaging materials for commercially available frozen foods were extracted by immersion in an aqueous ethanol solution and eluted. Measurements were made according to the hygiene test method. A standard additive was also measured.

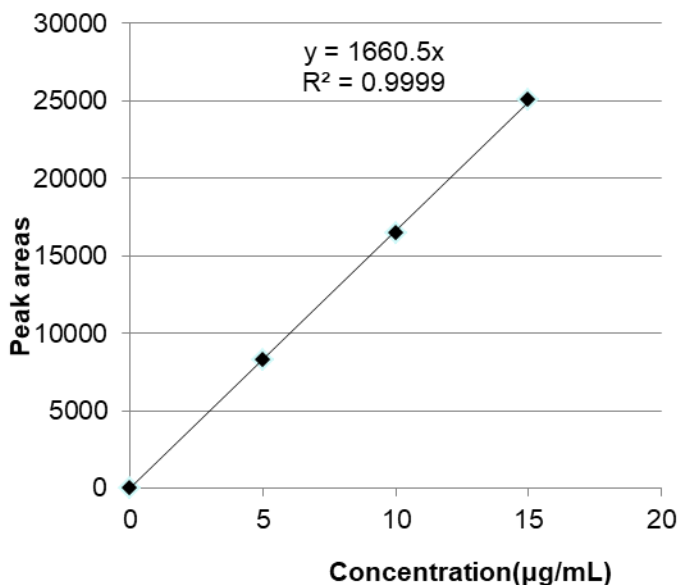
Example of standard solution measurement



GC Conditions

System	: GC - FID
Column	: InertCap 1 0.32 mm I.D. x 30 m df = 5.00 μm
Col.Temp.	: 240 $^{\circ}\text{C}$ (7 min hold)
Carrier Gas	: He 110 kPa
Injection	: Split (1:10) Vent flow 18 mL/min 200 $^{\circ}\text{C}$
Detection	: FID 220 $^{\circ}\text{C}$
Sample Size	: 15 $\mu\text{g/mL}$ in 20% Ethanol solution 1 μL

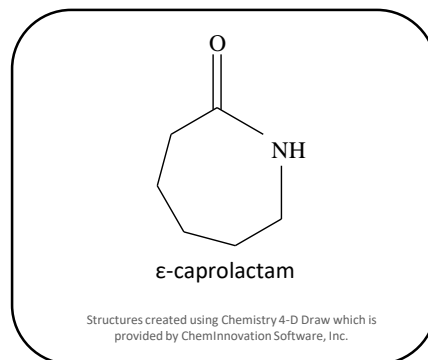
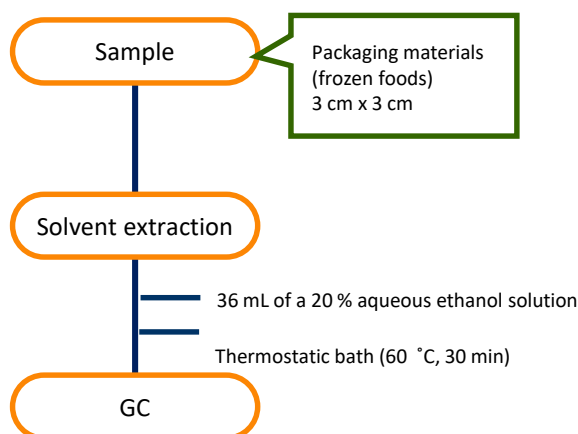
Calibration curve



<Results of repeated measurements>

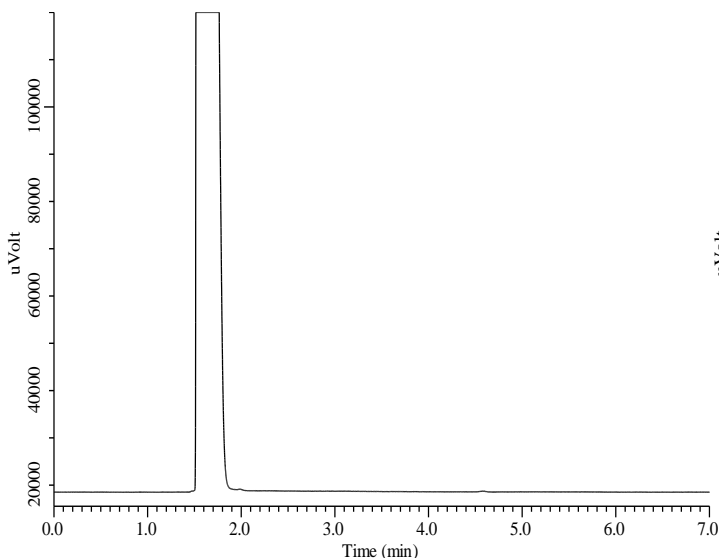
	5 $\mu\text{g/mL}$	10 $\mu\text{g/mL}$	15 $\mu\text{g/mL}$
1	8551	16361	24666
2	8353	16340	24768
3	8121	16331	24902
4	8213	16734	25046
5	8065	16530	25470
6	8141	16426	25326
Ave.	8241	16454	25030
SD	182	156	316
RSD (%)	2.20	0.95	1.26

Preliminary processing procedure

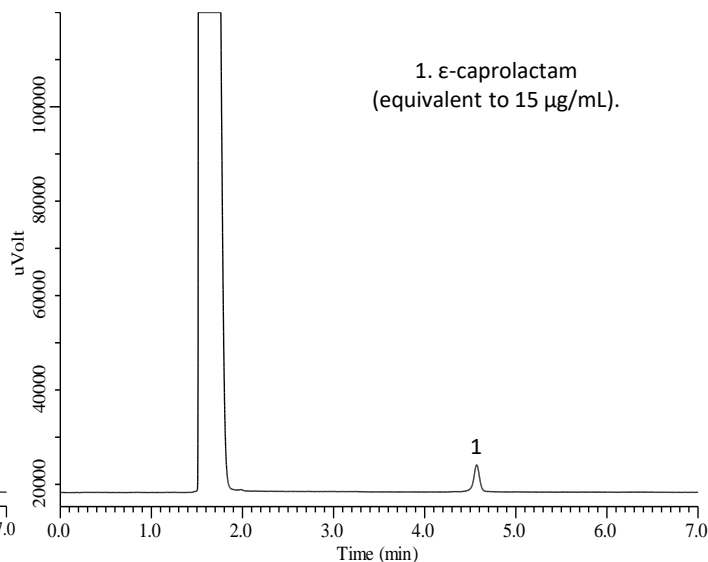


Example of actual sample measurement

Extract



Extract + ε-caprolactam solution



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.

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@glsciences.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, 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

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

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Visit our Website at www.glsciences.com/distributors