

# Certificate

## BORAGE SEED OIL

USP Catalog No.:	1076057
USP Lot No.:	F0M139

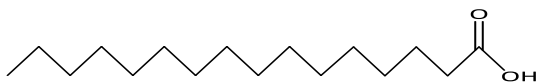
<p>Borage Seed Oil is a mixture of acyltriglycerides consisting of saturated, <i>cis</i>-mono-unsaturated, and <i>cis</i>-polyunsaturated fatty acids.</p> <p>(See details below)</p>	CAS No. 84012-16-8
	Molecular Formula NA
	Molecular Weight NA

Only compendial components as listed in the monograph shown below

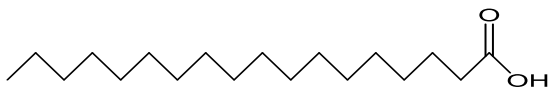
Item	Name/Chemical name	CAS	Molecular Weight	Molecular Formula
1	Palmitic Acid	57-10-3	256.42	C <sub>16</sub> H <sub>32</sub> O <sub>2</sub>
2	Stearic Acid	57-11-4	284.48	C <sub>18</sub> H <sub>36</sub> O <sub>2</sub>
3	Oleic Acid	112-80-1	282.46	C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>
4	Linoleic Acid	60-33-3	280.45	C <sub>18</sub> H <sub>32</sub> O <sub>2</sub>
5	gamma-Linolenic Acid	506-26-3	278.43	C <sub>18</sub> H <sub>30</sub> O <sub>2</sub>
6	Arachidic Acid	506-30-9	312.53	C <sub>20</sub> H <sub>40</sub> O <sub>2</sub>
7	Gadoleic Acid	29204-02-2	310.51	C <sub>20</sub> H <sub>38</sub> O <sub>2</sub>
8	Behenic Acid	112-85-6	340.6	C <sub>22</sub> H <sub>44</sub> O <sub>2</sub>
9	Erucic Acid	112-86-7	338.57	C <sub>22</sub> H <sub>42</sub> O <sub>2</sub>
10	Nervonic Acid	506-37-6	366.62	C <sub>24</sub> H <sub>46</sub> O <sub>2</sub>

Only compendial components as listed in the monograph after hydrolysis are shown below

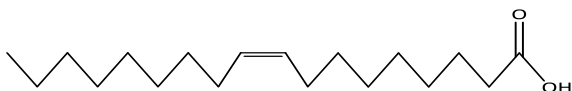
(1)



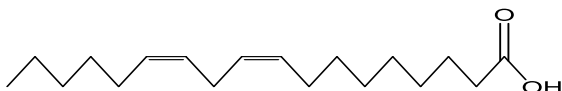
(2)



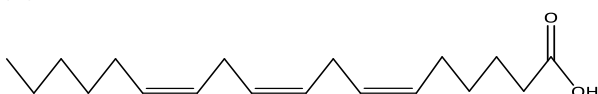
(3)



(4)



(5)



(6)



(7)



(8)



(9)



(10)



**LABEL TEXT**

For use with specified USP compendial tests.  
Not for use as a drug. See SDS prior to use  
at [www.usp.org/sds](http://www.usp.org/sds).

**USP REFERENCE STANDARD**

**BORAGE SEED OIL 1 g**

Do not dry. Air and light sensitive.

USP, 12601 Twinbrook Pkwy, Rockville, MD  
+1-301-881-0666  
CAT. NO. 1076057

LOT: F0M139



*Jeri L. Toth*

*Quality Assurance*

**Calculation Value**

If a value is not provided on the label or accompanying documentation and the Reference Standard has a quantitative USP compendial application, a value of 100.0% is used. The purity value is not applicable for qualitative uses. Please refer to the specific Reference Standard label for further information.

**Expiration**

Current lots are identified in the current USP Catalog. In some cases, the previous lot may still be considered valid for use. If so, it is identified in the column marked "Previous Lot/Valid Use Date."

It is the responsibility of each user to determine that this lot is current or valid when used. For the most up-to-date information, please refer to the USP Store at [www.usp.org](http://www.usp.org).

**Instructions for Use**

Follow the instructions on the label of the USP Reference Standard and in the appropriate USP documentary standard(s).

**Non-Monograph Use**

The suitability of this Reference Standard for use in non-compendial applications is solely the responsibility of the user.

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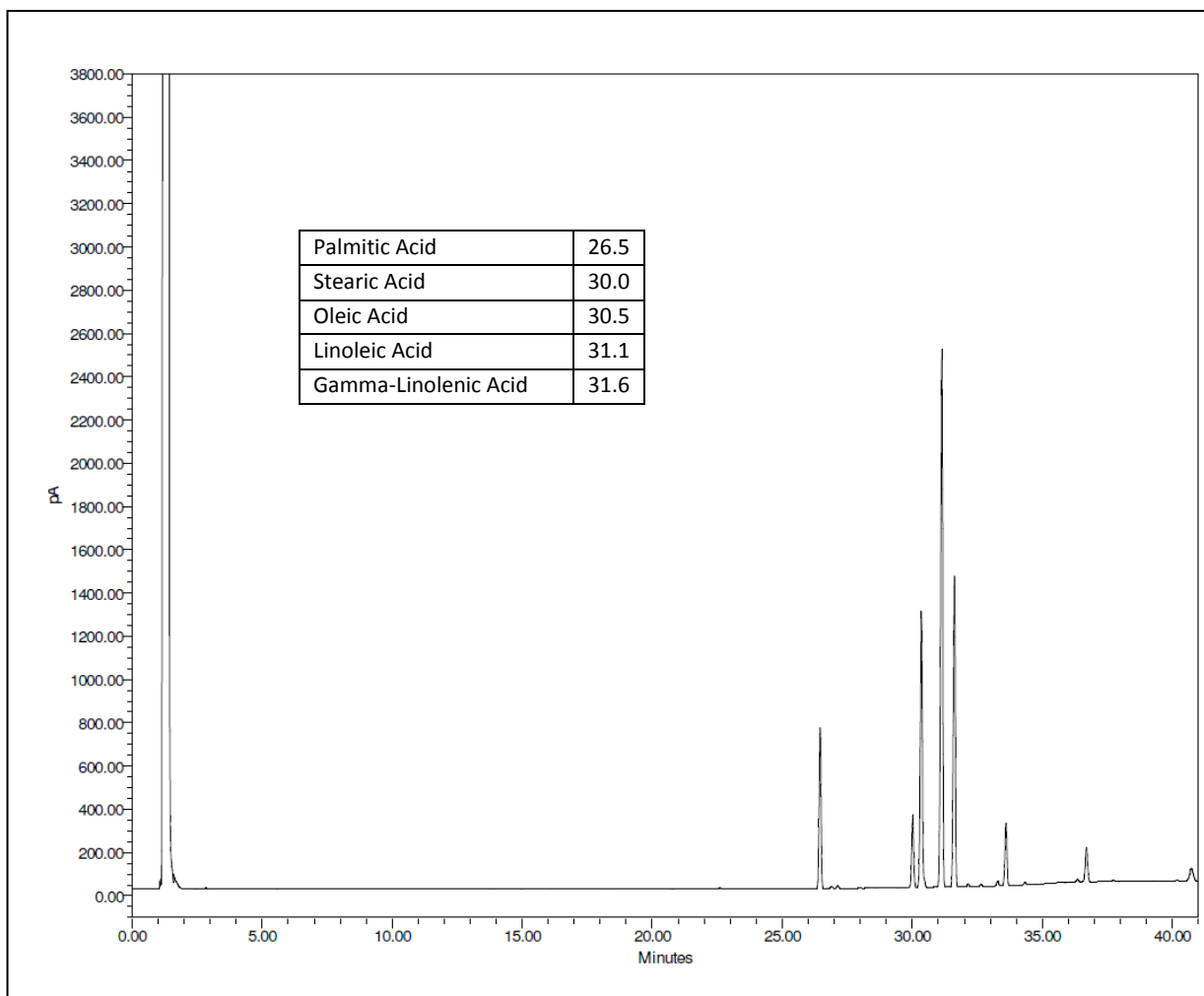
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# Typical Chromatogram

## USP BORAGE SEED OIL RS

<b>Catalog Number:</b> 1076057
<b>Lot:</b> F0M139
<b>Monograph:</b> Borage Seed Oil Capsules
<b>Publication:</b> PF 39(6)
<b>Test:</b> Content of Gamma Linolenic, Linoleic, and Oleic Acids
<b>Sample:</b> System Suitability Solution



This chromatogram is supplied for information only, unless otherwise specified in an applicable monograph or general chapter.