



U.S. Pharmacopeia  
The Standard of Quality<sup>SM</sup>

# USP Certificate

## Cod Liver Oil LOT F0D400

### Molecular Formula

n/f

### Molecular Weight

n/f

No structure available

### CAS Number

8001-69-2

### LABEL TEXT

## USP<sup>®</sup> REFERENCE STANDARD

### COD LIVER OIL 1 g

Do not dry. Dispose of unused portion after opening.  
Protect from light. Store in a refrigerator.



Warning! Causes skin irritation.

Wash thoroughly after handling. Wear protective gloves. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

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).

KEEP AMPULE IN SECONDARY CONTAINER!  
USP, 12601 Twinbrook Pkwy, Rockville, MD, +1-301-881-0666  
CAT. NO. 1145207 Material mfd. in United States

LOT: F0D400



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Not for use as a drug. See SDS prior to use at  
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USP

## REFERENCE STANDARD



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#### Intentionally over-labeled for GHS compliance

USP, 12601 Twinbrook Pkwy, Rockville, MD, +1-301-881-0666

CAT. NO. 1145207

Lot: F0D400

Material mfd in United States

USP certifies that the USP Reference Standards Committee, in accordance with their rules and procedures, determined that this USP Reference Standard lot is suitable to assess compliance with the monograph standards for which it is specified. The critical characteristics of this lot are usually determined independently in three or more laboratories, including USP, FDA, and academic or industrial collaborators.

*Jeri L. Toth*

*QA Director*



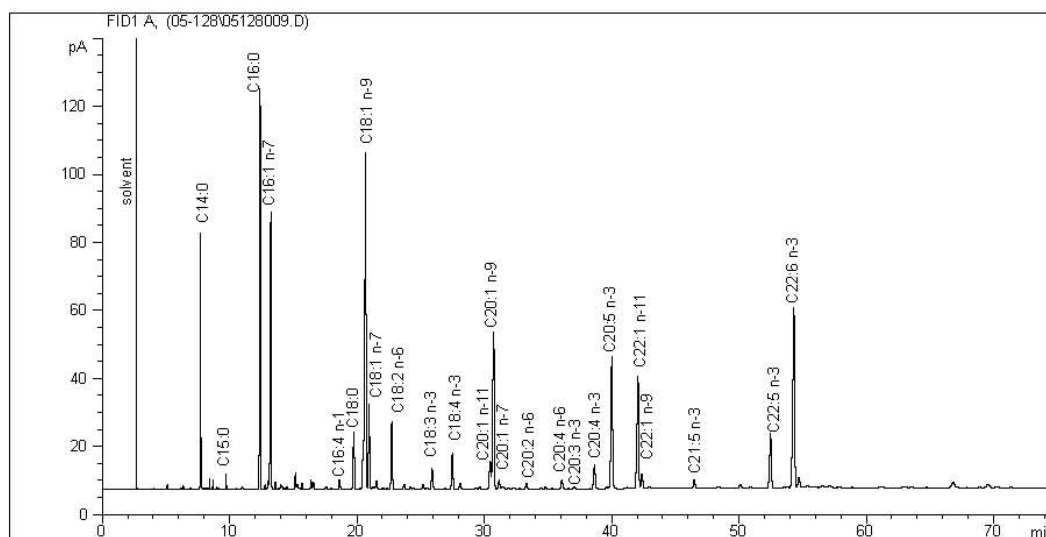
# TYPICAL CHROMATOGRAM

## USP Cod Liver Oil RS

Lot F0D400 (Cat. No. 1145207)

**USP Monograph:** Cod Liver Oil (USP 28)

**Test:** Identification B—Fatty acid profile



Peaks in the chromatogram are identified as follows (all peaks are in the methyl ester form) :

C14:0	Myristic acid	C20:1 n-9	Gondoic acid
C15:0	Pentadecanoic acid	C20:1 n-7	13-Eicosenoic acid
C16:0	Palmitic acid	C20:2 n-6	11,14-Eicosadienoic acid
C16:1 n-7	Palmitoleic acid	C20:4 n-6	Arachidonic acid
C16:4 n-1	6,9,12,15-Hexadecatetraenoic acid	C20:3 n-3	11,14,17-Eicosatrienoic acid
C18:0	Stearic acid	C20:4 n-3	8, 11,14,17-Eicosatetraenoic acid
C18:1 n-9	Oleic acid	C20:5 n-3	Eicosapentaenoic acid
C18:1 n-7	Cis-Vaccenic acid	C22:1 n-11	Cetoleic acid
C18:2 n-6	Linoleic acid	C22:1 n-9	Erucic acid
C18:3 n-3	$\alpha$ -Linolenic acid	C21:5 n-3	6,9,12,15,18-Heneicosapentaenoic acid
C18:4 n-3	Morotic acid	C22:5 n-3	Clupadonic acid
C20:1 n-11	Gadoleic acid	C22:6 n-3	Docosaheptaenoic acid

This chromatogram is supplied for information only to assist in identifying peaks and does not constitute any legal requirement.

### Calculation Value

Unless otherwise stated on the Reference Standard label, a value of 100.0% should be used in USP or NF compendial applications for which the use of this Reference Standard is intended. Please refer to the specific Reference Standard label for further information.

### Expiration

Current lots are identified in the Official USP Reference Standards catalog. In some cases, the previous lot may still be considered official. If so, it is identified in the column marked "Previous Lot/Valid Use Date." Ordinarily, the previous lot is carried in official status for about one year after the current lot enters distribution.

It is the responsibility of each user to determine that this lot is current when used. To ensure up-to-date information, USP publishes the Official USP Reference Standards Catalog, which contains official lot designations. This information is also available on the USP web site, at [www.usp.org](http://www.usp.org), as well as in the bimonthly subscription publication, *Pharmacopeial Forum*.

### Instructions for Use

Follow the instructions in the appropriate USP or NF Monographs and General Requirements for Tests and Assays of the current *USP–NF*. In the event that instructions on the label of this lot differ from those found in the current *USP–NF*, those on the label supersede any instructions listed in Chapter <11>.

### 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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