

## **Peanut butter - Fat, fatty acids, trace elements and tocopherol**

Art. ID	NIST-2387
Unit	3 x 170 g
Deliverydetails	Dry ice shipment UN1845 E0

### Description

This Standard Reference Material (SRM®) is intended primarily for use in validating methods for determining proximates, fatty acids, calories, vitamins, elements, amino acids, aflatoxins, and acrylamide in peanut butter and similar matrices. This SRM® can also be used for quality assurance when assigning values to in-house control materials. A unit of NIST-2387 consists of three jars of peanut butter containing 170 g each. Reference values for proximates, caloric content, fatty acids, amino acids, water-soluble vitamins, aflatoxins and acrylamide. /// Sample values - please ask for current certificate.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
Certified Mass Fraction Value	Fat (Extractable)		51,6 ± 1,4	%		
Certified Mass Fraction Value	Calcium (Ca)	[7440-70-2]	411 ± 18	mg/kg		
Certified Mass Fraction Value	Copper (Cu)	[7440-50-8]	4,93 ± 0,15	mg/kg		
Certified Mass Fraction Value	Iron (Fe)	[7439-89-6]	16,4 ± 0,8	mg/kg		
Certified Mass Fraction Value	Magnesium (Mg)	[7439-95-4]	1680 ± 70	mg/kg		
Certified Mass Fraction Value	Manganese (Mn)	[7439-96-5]	16,0 ± 0,6	mg/kg		
Certified Mass Fraction Value	Phosphorus (P)	[7723-14-0]	3378 ± 92	mg/kg		
Certified Mass Fraction Value	Potassium (K)	[7440-09-7]	6070 ± 200	mg/kg		
Certified Mass Fraction Value	Sodium (Na)	[7440-23-5]	4890 ± 140	mg/kg		
Certified Mass Fraction Value	Zinc (Zn)	[7440-66-6]	26,3 ± 1,1	mg/kg		
Certified Mass Fraction Value	delta-Tocopherol		10 ± 3	mg/kg		
Certified Mass Fraction Value	gamma + beta-Tocopherol		100 ± 19	mg/kg		
Reference Mass Fraction Value for Fatty Acid a	Tetradecanoic acid (Myristic acid) (C14:0)	[544-63-8]	0,024 ± 0,002	%		

s Free Fatty Acid

Reference Mass Fraction (Z)-9-Hexadecenoic acid [373-49-9] 0,044 ± 0,010 %

Value for Fatty Acid a (Palmitoleic acid) (C1

s Free Fatty Acid 6:1 n-7)

Reference Mass Fraction Heptadecanoic acid (Mar [506-12-7] 0,048 ± 0,001 %

Value for Fatty Acid a garic acid) (C17:0)

s Free Fatty Acid

Reference Mass Fraction (z)-9-Heptadecenoic Aci [n/a] 0,033 ± 0,006 %

Value for Fatty Acid a d (Margaroleic Acid) (C

s Free Fatty Acid 17:1n-8)

Reference Mass Fraction Octadecanoic acid (Stea [57-11-4] 2,13 ± 0,08 %

Value for Fatty Acid a ric acid) (C18:0)

s Free Fatty Acid

Reference Mass Fraction (Z)-9-Octadecenoic acid [112-80-1] 23,38 ± 0,90 %

Value for Fatty Acid a (Oleic acid) (C18:1 n-

s Free Fatty Acid 9)

Reference Mass Fraction (Z)-11-Octadecenoic aci [506-17-2] 0,255 ± 0,016 %

Value for Fatty Acid a d (Vaccenic acid) (C18:

s Free Fatty Acid 1 n-7)

Reference Mass Fraction (Z,Z)-9,12-Octadecadien [60-33-3] 13,15 ± 0,41 %

Value for Fatty Acid a oic acid (Linoleic acid

s Free Fatty Acid ) (C18:2 n-6)

Reference Mass Fraction (Z,Z,Z)-9,12,15-Octadec [463-40-1] 0,030 ± 0,001 %

Value for Fatty Acid a atrienoic acid (alpha-L

s Free Fatty Acid inolenic acid) (C18:3 n-3)

Reference Mass Fraction Eicosanoic acid (Arachi [506-30-9] 0,710 ± 0,029 %

Value for Fatty Acid a dic acid) (C20:0)

s Free Fatty Acid

Reference Mass Fraction (Z)-11-Eicosenoic acid [5561-99-9] 0,643 ± 0,031 %

Value for Fatty Acid a (Gondoic acid) (C20:1 n

s Free Fatty Acid -9)

Reference Mass Fraction Eicosadienoic Acid (C20 [n/a] 0,016 ± 0,007 %

Value for Fatty Acid a :2)

s Free Fatty Acid

Reference Mass Fraction (Z,Z,Z,Z)-5,8,11,14-Eic [506-32-1] 0,024 ± 0,015 %

Value for Fatty Acid a osatetraenoic acid (Ara

s Free Fatty Acid chidonic acid) (C20:4 n

	-6)				
Reference Mass Fraction	Docosanoic acid (Behenic acid) (C22:0)	[112-85-6]	1,81 ± 0,08		%
Value for Fatty Acids as Free Fatty Acid					
Reference Mass Fraction	(Z)-13-Docosenoic acid (Erucic acid) (C22:1 n-9)	[112-86-7]	0,054 ± 0,012		%
Value for Fatty Acids as Free Fatty Acid					
Reference Mass Fraction	Total Fat (as the sum of fatty acids as triglycerides)		49,8 ± 1,9		%
Value for Fatty Acids as Free Fatty Acid					
Reference Mass Fraction	Monounsaturated Fatty Acids		24,4 ± 0,9		%
Value for Fatty Acids as Free Fatty Acid					
Reference Mass Fraction	Polyunsaturated Fatty Acids		13,2 ± 0,9		%
Value for Fatty Acids as Free Fatty Acid					
Reference Mass Fraction	alpha-Tocopherol	[10191-41-0]	73,7 ± 8,4		mg/kg
Value for Fatty Acids as Free Fatty Acid					
for further Reference Mass Fraction Values please see certificate					