



International Accreditation Japan

Information on Accredited Reference Material Producer

Date of the update of the information : 2026-04-01

Accreditation Identification: ASNITE 0044 RMP

Name of Reference Material Producer: Tokyo Plant,
FUJIFILM Wako Pure Chemical Corporation

Location of Reference Material Producer : 1633 Oazamatoba, Kawagoe-shi, Saitama
350-1101, JAPAN

Name of Legal Entity: FUJIFILM Wako Pure Chemical Corporation

Conformance Accreditation Standard: ISO 17034:2016

Expiry Date of Accreditation: 2027-03-03

Category: Chemical Reference Materials

Type: Certified Reference Material

Property Characterized: Concentration

The Approach Used to Assign a Property Value:

(**1) Measurement by One or More Method(s) in a Single Laboratory (ISO 17034:2016 7.12.3 NOTE 1 b), d))

(**2) Characterization Based on Mass or Volume of Ingredients Used in the Preparation of the Reference Material (ISO 17034:2016 7.12.3 NOTE 1 e))

Fixed Scopes/Flexible Scopes: Fixed Scopes

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) ($k=2$)	Characterization Technique	Effective Date of Accreditation
Inorganic Reference Material High Purity Inorganic Material (Reference Materials for Volumetric Analysis) (**1)	Amidosulfuric Acid (Purity)	$\geq 99.90 \%$	$\geq 0.03 \%$	Potentiometric titrimetry	2023-03-04
	Potassium Hydrogen Phthalate (Purity)	99.95 % to 100.05 %	$\geq 0.03 \%$	Potentiometric titrimetry	
	Sodium Oxalate (Purity)	$\geq 99.95 \%$	$\geq 0.05 \%$	Potentiometric titrimetry	
	Sodium Carbonate (Purity)	$\geq 99.95 \%$	$\geq 0.03 \%$	Potentiometric titrimetry	
	Potassium Dichromate (Purity)	$\geq 99.98 \%$	$\geq 0.03 \%$	Potentiometric titrimetry	
	Potassium Iodate (Purity)	$\geq 99.95 \%$	$\geq 0.04 \%$	Potentiometric titrimetry	
	Sodium Chloride (Purity)	$\geq 99.95 \%$	$\geq 0.06 \%$	Potentiometric titrimetry	
	Sodium Fluoride (Purity)	$\geq 99.90 \%$	$\geq 0.04 \%$	Gravimetric analysis	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) ($k=2$)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound (**1)	1,4-BTMSB-d ₄ (Purity)	≥ 99.0 %	≥ 0.5 %	Quantitative NMR(*3)	2023-03-04
	DSS-d ₆ (Purity)	91.9 % to 93.2 %	≥ 0.3 %	Quantitative NMR	
	Anilofos (Purity)	≥ 98.0 %	≥ 0.3 %	Quantitative NMR	
	DEP (Purity)	≥ 99.0 %	≥ 0.3 %	Quantitative NMR	
	DCMU (Purity)	≥ 98.0 %	≥ 0.3 %	Quantitative NMR	
	Diazinon (Purity)	≥ 99.0 %	≥ 0.3 %	Quantitative NMR	
	Diflubenzuron (Purity)	≥ 99.0 %	≥ 0.4 %	Quantitative NMR	
	Flutolanil (Purity)	≥ 98.0 %	≥ 0.9 %	Quantitative NMR	
	Malathion (Purity)	≥ 98.0 %	≥ 0.3 %	Quantitative NMR	
	MCP (Purity)	≥ 98.0 %	≥ 0.3 %	Quantitative NMR	
	Propyzamide (Purity)	≥ 98.0 %	≥ 0.4 %	Quantitative NMR	
	Pyributicarb (Purity)	≥ 99.0 %	≥ 0.3 %	Quantitative NMR	
	Silafluofen (Purity)	≥ 99.0 %	≥ 0.4 %	Quantitative NMR	
	Tiadinil (Purity)	≥ 98.0 %	≥ 0.3 %	Quantitative NMR and Freezing point depression method	
	Chlorfenapyr (Purity)	≥ 99.0 %	≥ 0.3 %	Quantitative NMR	
	CNP-amino (Purity)	≥ 97.0 %	≥ 0.5 %	Quantitative NMR	
	CAT (Purity)	≥ 99.0 %	≥ 0.4 %	Quantitative NMR	
	Clothianidin (Purity)	≥ 99.0 %	≥ 0.4 %	Quantitative NMR	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) ($k=2$)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound (**1)	Fludioxonil (Purity)	$\geq 99.0 \%$	$\geq 0.3 \%$	Quantitative NMR and Freezing point depression method	2023-03-04
	Glyphosate (Purity)	$\geq 96.0 \%$	$\geq 0.6 \%$	Quantitative NMR	
	Isoprothiolane (Purity)	$\geq 99.0 \%$	$\geq 0.4 \%$	Quantitative NMR	
	Indanofan (Purity)	$\geq 99.0 \%$	$\geq 0.3 \%$	Quantitative NMR	
	Linuron (Purity)	$\geq 99.0 \%$	$\geq 0.4 \%$	Quantitative NMR and Freezing point depression method	
	Methomyl (Purity)	$\geq 98.0 \%$	$\geq 0.3 \%$	Quantitative NMR	
	Thiamethoxam (Purity)	$\geq 99.0 \%$	$\geq 0.3 \%$	Quantitative NMR	
	Thiacloprid (Purity)	$\geq 97.0 \%$	$\geq 0.3 \%$	Quantitative NMR	
	Tetraconazole (Purity)	$\geq 98.0 \%$	$\geq 0.3 \%$	Quantitative NMR	
	Tricyclazole (Purity)	$\geq 99.0 \%$	$\geq 0.3 \%$	Quantitative NMR and Freezing point depression method	
	Methyl Dimethyldithiocarbamate (Purity)	$\geq 98.0 \%$	$\geq 0.3 \%$	Quantitative NMR	
	MIPC (Purity)	$\geq 99.0 \%$	$\geq 0.3 \%$	Quantitative NMR	
	Dimethyl Sulfone (Purity)	$\geq 99.0 \%$	$\geq 0.5 \%$	Quantitative NMR	
	Maleic Acid (Purity)	$\geq 99.0 \%$	$\geq 0.4 \%$	Quantitative NMR	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) ($k=2$)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound (**2)	16 amino acid mixture standard solution				
	L-Aspartic Acid	0.1800 $\mu\text{mol/mL}$ to 0.2200 $\mu\text{mol/mL}$	0.0026 $\mu\text{mol/mL}$	Gravimetric	2023-03-04
	L-Glutamic Acid	0.900 $\mu\text{mol/mL}$ to 1.100 $\mu\text{mol/mL}$	0.023 $\mu\text{mol/mL}$	Gravimetric	
	Sarcosine	0.1800 $\mu\text{mol/mL}$ to 0.2200 $\mu\text{mol/mL}$	0.0032 $\mu\text{mol/mL}$	Gravimetric	
	L-Citrulline	0.900 $\mu\text{mol/mL}$ to 1.100 $\mu\text{mol/mL}$	0.005 $\mu\text{mol/mL}$	Gravimetric	
	DL-2-Aminobutyric Acid	0.4500 $\mu\text{mol/mL}$ to 0.5500 $\mu\text{mol/mL}$	0.0031 $\mu\text{mol/mL}$	Gravimetric	
	L-Cystine	0.900 $\mu\text{mol/mL}$ to 1.100 $\mu\text{mol/mL}$	0.005 $\mu\text{mol/mL}$	Gravimetric	
	L-Methionine	0.900 $\mu\text{mol/mL}$ to 1.100 $\mu\text{mol/mL}$	0.005 $\mu\text{mol/mL}$	Gravimetric	
	DL-3-Aminoisobutyric Acid	0.1800 $\mu\text{mol/mL}$ to 0.2200 $\mu\text{mol/mL}$	0.0015 $\mu\text{mol/mL}$	Gravimetric	
	4-Aminobutyric Acid	0.1800 $\mu\text{mol/mL}$ to 0.2200 $\mu\text{mol/mL}$	0.0016 $\mu\text{mol/mL}$	Gravimetric	
	2-Aminoethanol	0.1800 $\mu\text{mol/mL}$ to 0.2200 $\mu\text{mol/mL}$	0.0019 $\mu\text{mol/mL}$	Gravimetric	
	5-Hydroxy-DL-Lysine	0.1800 $\mu\text{mol/mL}$ to 0.2200 $\mu\text{mol/mL}$	0.0013 $\mu\text{mol/mL}$	Gravimetric	
	1-Methyl-L-Histidine	0.1800 $\mu\text{mol/mL}$ to 0.2200 $\mu\text{mol/mL}$	0.0043 $\mu\text{mol/mL}$	Gravimetric	
	3-Methyl-L-Histidine	0.1800 $\mu\text{mol/mL}$ to 0.2200 $\mu\text{mol/mL}$	0.0019 $\mu\text{mol/mL}$	Gravimetric	
	L-Anserine	0.1800 $\mu\text{mol/mL}$ to 0.2200 $\mu\text{mol/mL}$	0.0040 $\mu\text{mol/mL}$	Gravimetric	
L-Carnosine	0.1800 $\mu\text{mol/mL}$ to 0.2200 $\mu\text{mol/mL}$	0.0037 $\mu\text{mol/mL}$	Gravimetric		
L-Hydroxyproline	0.1800 $\mu\text{mol/mL}$ to 0.2200 $\mu\text{mol/mL}$	0.0030 $\mu\text{mol/mL}$	Gravimetric		

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) ($k=2$)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound (**2)	15 amino acid mixture standard solution				
	Taurine	4.500 $\mu\text{mol/mL}$ to 5.500 $\mu\text{mol/mL}$	0.044 $\mu\text{mol/mL}$	Gravimetric	2023-03-04
	L-Threonine	4.500 $\mu\text{mol/mL}$ to 5.500 $\mu\text{mol/mL}$	0.035 $\mu\text{mol/mL}$	Gravimetric	
	L-Serine	4.500 $\mu\text{mol/mL}$ to 5.500 $\mu\text{mol/mL}$	0.035 $\mu\text{mol/mL}$	Gravimetric	
	Glycine	9.00 $\mu\text{mol/mL}$ to 11.00 $\mu\text{mol/mL}$	0.07 $\mu\text{mol/mL}$	Gravimetric	
	L-Alanine	9.00 $\mu\text{mol/mL}$ to 11.00 $\mu\text{mol/mL}$	0.08 $\mu\text{mol/mL}$	Gravimetric	
	L-Valine	9.00 $\mu\text{mol/mL}$ to 11.00 $\mu\text{mol/mL}$	0.08 $\mu\text{mol/mL}$	Gravimetric	
	L-Isoleucine	4.500 $\mu\text{mol/mL}$ to 5.500 $\mu\text{mol/mL}$	0.036 $\mu\text{mol/mL}$	Gravimetric	
	L-Leucine	4.500 $\mu\text{mol/mL}$ to 5.500 $\mu\text{mol/mL}$	0.036 $\mu\text{mol/mL}$	Gravimetric	
	L-Tyrosine	4.500 $\mu\text{mol/mL}$ to 5.500 $\mu\text{mol/mL}$	0.038 $\mu\text{mol/mL}$	Gravimetric	
	L-Phenylalanine	4.500 $\mu\text{mol/mL}$ to 5.500 $\mu\text{mol/mL}$	0.035 $\mu\text{mol/mL}$	Gravimetric	
	L-Ornithine	2.250 $\mu\text{mol/mL}$ to 2.750 $\mu\text{mol/mL}$	0.023 $\mu\text{mol/mL}$	Gravimetric	
	L-Lysine	4.500 $\mu\text{mol/mL}$ to 5.500 $\mu\text{mol/mL}$	0.037 $\mu\text{mol/mL}$	Gravimetric	
	L-Histidine	4.500 $\mu\text{mol/mL}$ to 5.500 $\mu\text{mol/mL}$	0.033 $\mu\text{mol/mL}$	Gravimetric	
L-Arginine	2.250 $\mu\text{mol/mL}$ to 2.750 $\mu\text{mol/mL}$	0.020 $\mu\text{mol/mL}$	Gravimetric		
L-Proline	4.500 $\mu\text{mol/mL}$ to 5.500 $\mu\text{mol/mL}$	0.040 $\mu\text{mol/mL}$	Gravimetric		

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) ($k=2$)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound (**2)	18 amino acid mixture standard solution				
	L-Aspartic Acid	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0011 $\mu\text{mol/mL}$	Gravimetric	2023-03-04
	L-Threonine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0017 $\mu\text{mol/mL}$	Gravimetric	
	L-Serine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0012 $\mu\text{mol/mL}$	Gravimetric	
	L-Glutamic Acid	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0048 $\mu\text{mol/mL}$	Gravimetric	
	Glycine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0017 $\mu\text{mol/mL}$	Gravimetric	
	L-Alanine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0014 $\mu\text{mol/mL}$	Gravimetric	
	L-Valine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0017 $\mu\text{mol/mL}$	Gravimetric	
	L-Cystine	0.1125 $\mu\text{mol/mL}$ to 0.1375 $\mu\text{mol/mL}$	0.0007 $\mu\text{mol/mL}$	Gravimetric	
	L-Methionine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0018 $\mu\text{mol/mL}$	Gravimetric	
	L-Isoleucine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0020 $\mu\text{mol/mL}$	Gravimetric	
	L-Leucine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0018 $\mu\text{mol/mL}$	Gravimetric	
	L-Tyrosine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0014 $\mu\text{mol/mL}$	Gravimetric	
	L-Phenylalanine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0020 $\mu\text{mol/mL}$	Gravimetric	
	Ammonium Chloride	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0019 $\mu\text{mol/mL}$	Gravimetric	
	L-Lysine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0017 $\mu\text{mol/mL}$	Gravimetric	
	L-Histidine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0016 $\mu\text{mol/mL}$	Gravimetric	
L-Arginine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0017 $\mu\text{mol/mL}$	Gravimetric		
L-Proline	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0019 $\mu\text{mol/mL}$	Gravimetric		

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) ($k=2$)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound (**2)	12 amino acid mixture standard solution				
	4-Aminobutyric Acid	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0014 $\mu\text{mol/mL}$	Gravimetric	2023-03-04
	2-Aminoethanol	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0017 $\mu\text{mol/mL}$	Gravimetric	
	Ammonium Chloride	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0039 $\mu\text{mol/mL}$	Gravimetric	
	5-Hydroxy-DL-lysine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0014 $\mu\text{mol/mL}$	Gravimetric	
	L-Ornithine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0013 $\mu\text{mol/mL}$	Gravimetric	
	L-Lysine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0012 $\mu\text{mol/mL}$	Gravimetric	
	1-Methyl-L-histidine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0018 $\mu\text{mol/mL}$	Gravimetric	
	L-Histidine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0017 $\mu\text{mol/mL}$	Gravimetric	
	3-Methyl-L-histidine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0019 $\mu\text{mol/mL}$	Gravimetric	
	L-Anserine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0024 $\mu\text{mol/mL}$	Gravimetric	
	L-Carnosine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0014 $\mu\text{mol/mL}$	Gravimetric	
L-Arginine	0.2250 $\mu\text{mol/mL}$ to 0.2750 $\mu\text{mol/mL}$	0.0014 $\mu\text{mol/mL}$	Gravimetric		

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) ($k=2$)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound (**2)	25 amino acid mixture standard solution				2023-03-04
	<i>O</i> -Phospho-L-serine	0.1125 µmol/mL to 0.1375 µmol/mL	0.0014 µmol/mL	Gravimetric	
	Taurine	0.1125 µmol/mL to 0.1375 µmol/mL	0.0012 µmol/mL	Gravimetric	
	<i>O</i> -Phosphorylethanolamine	0.1125 µmol/mL to 0.1375 µmol/mL	0.0013 µmol/mL	Gravimetric	
	Urea	4.500 µmol/mL to 5.500 µmol/mL	0.044 µmol/mL	Gravimetric	
	L-Aspartic Acid	0.2250 µmol/mL to 0.2750 µmol/mL	0.0019 µmol/mL	Gravimetric	
	L-Threonine	0.2250 µmol/mL to 0.2750 µmol/mL	0.0019 µmol/mL	Gravimetric	
	L-Serine	0.2250 µmol/mL to 0.2750 µmol/mL	0.0013 µmol/mL	Gravimetric	
	L-Glutamic Acid	0.2250 µmol/mL to 0.2750 µmol/mL	0.0054 µmol/mL	Gravimetric	
	Sarcosine	0.5625 µmol/mL to 0.6875 µmol/mL	0.0075 µmol/mL	Gravimetric	
	Glycine	0.2250 µmol/mL to 0.2750 µmol/mL	0.0016 µmol/mL	Gravimetric	
	L-Alanine	0.2250 µmol/mL to 0.2750 µmol/mL	0.0017 µmol/mL	Gravimetric	
	L-Citrulline	0.2250 µmol/mL to 0.2750 µmol/mL	0.0016 µmol/mL	Gravimetric	
	DL-2-Aminoisobutyric Acid	0.1125 µmol/mL to 0.1375 µmol/mL	0.0009 µmol/mL	Gravimetric	
	L-Valine	0.2250 µmol/mL to 0.2750 µmol/mL	0.0014 µmol/mL	Gravimetric	
	L-Cystine	0.1125 µmol/mL to 0.1375 µmol/mL	0.0009 µmol/mL	Gravimetric	
	L-Methionine	0.2250 µmol/mL to 0.2750 µmol/mL	0.0021 µmol/mL	Gravimetric	
	L-Cystathionine	0.1125 µmol/mL to 0.1375 µmol/mL	0.0007 µmol/mL	Gravimetric	
	L-Isoleucine	0.2250 µmol/mL to 0.2750 µmol/mL	0.0017 µmol/mL	Gravimetric	
	L-Leucine	0.2250 µmol/mL to 0.2750 µmol/mL	0.0015 µmol/mL	Gravimetric	
	L-Tyrosine	0.2250 µmol/mL to 0.2750 µmol/mL	0.0014 µmol/mL	Gravimetric	
	L-Phenylalanine	0.2250 µmol/mL to 0.2750 µmol/mL	0.0014 µmol/mL	Gravimetric	
	β-Alanine	0.2250 µmol/mL to 0.2750 µmol/mL	0.0018 µmol/mL	Gravimetric	
DL-3-Aminoisobutyric Acid	0.2250 µmol/mL to 0.2750 µmol/mL	0.0020 µmol/mL	Gravimetric		
L-Hydroxyproline	0.2250 µmol/mL to 0.2750 µmol/mL	0.0029 µmol/mL	Gravimetric		
L-Proline	0.2250 µmol/mL to 0.2750 µmol/mL	0.0029 µmol/mL	Gravimetric		

Fixed Scopes/Flexible Scopes: Flexible Scopes

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) ($k=2$)	Characterization Technique	Effective Date of Accreditation
Inorganic Reference Material High Purity Inorganic Material	Metallic Standard Solution (Single Component) (**1)	100 mg/kg to 1000 mg/kg	-	Chelatometric Titrimetry	2023-03-04
				Comparison with NIST(*1)-CRM.	
	Inorganic Standard Solution (Single and Multi-Component) (**2)	-	-	ICP-OES(*2)	2024-02-29
Comparison with NIST(*1)-CRM.					
Organic Reference Material Pure Organic Compound	Pure Organic Compound (Single Component) (**1)	-	-	Quantitative NMR(¹ H)	2025-03-27
	Organic Standard Solution (Single Component in NMR solvent) (**1)	-	-		
	Organic Standard Solution (Single Component, Multi-Component) (**2)	-	-	Gravimetric preparation	
	Organofluorine compound (Single Component) (**1)	-	-	Quantitative NMR(¹⁹ F)	2025-12-25
	Organofluorine Standard Solution (Single Component) (**1)	-	-		

Note: Information on reference materials producible under the flexible scope of accreditation is available on the RMP's website (<https://www.fujifilm.com/ffwk/ja/about/sustainability/quality/temp>).

*1 National Institute of Standard and Technology

*2 Inductively coupled plasma optical emission spectrometry

*3 Nuclear magnetic resonance

(End of Attachment)