



24•10•17-NITE-001
2 0 2 5 - 0 3 - 2 7

Certificate of Accreditation

International Accreditation Japan (IAJapan) hereby accredits the following conformity assessment body as a calibration laboratory of Japan Calibration Service System.

Accreditation Identification: JCSS 0016 Calibration

Name of Conformity Assessment Body: Tokyo Plant, FUJIFILM Wako Pure Chemical Corporation

Name of Legal Entity: FUJIFILM Wako Pure Chemical Corporation

Location of Conformity Assessment Body: 1633 Oazamatoba, Kawagoe-shi, Saitama 350-1101, JAPAN

Scope of Accreditation: Concentration (as the following pages)

Accreditation Requirement: ISO/IEC 17025:2017*

* The relevant accreditation requirements described in the Accreditation Scheme Document for JCSS are also applied.

Effective Date of Accreditation: 2023-10-31

Expiry Date of Accreditation: 2027-10-30

Date of Initial Accreditation: 2005-12-26

A handwritten signature in black ink, appearing to read 'K. Horisaka'.

HORISAKA Kazuhide

Chief Executive, International Accreditation Japan (IAJapan)

National Institute of Technology and Evaluation

-
- International Accreditation Japan (IAJapan) is a laboratory accreditation body which has signed MRAs of ILAC (International Laboratory Accreditation Cooperation) and APAC (Asia Pacific Accreditation Cooperation).
 - MRA requirements are, in addition to relevant international standards and guides, requirements for participation in proficiency testing programs, surveillance and reassessment, and the policy for the traceability of measurement for MRA purpose.
 - This laboratory fulfills ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation means this laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).
 - The latest accreditation information is publicly available on IAJapan Website as an accreditation certificate.



24•10•17-NITE-001
2 0 2 5 - 0 3 - 2 7

Certificate of Accreditation

International Accreditation Japan (IAJapan) hereby accredits the following conformity assessment body as a Reference Material Producer of Japan Calibration Service System.

Accreditation Identification: JCSS 0016 RMP

Name of Conformity Assessment Body: Tokyo Plant, FUJIFILM Wako Pure Chemical Corporation

Name of Legal Entity : FUJIFILM Wako Pure Chemical Corporation

Location of Conformity Assessment Body: 1633 Oazamatoba, Kawagoe-shi, Saitama 350-1101, JAPAN

Scope of Accreditation: Concentration (as the following pages)

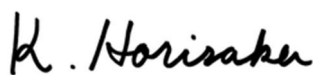
Accreditation Requirement: ISO 17034:2016*

* The relevant accreditation requirements described in the Accreditation Scheme Document for JCSS-RMP are also applied.

Effective Date of Accreditation: 2023-10-31

Expiry Date of Accreditation: 2027-10-30

Date of Initial Accreditation: 2005-12-26



HORISAKA Kazuhide

Chief Executive, International Accreditation Japan (IAJapan)

National Institute of Technology and Evaluation

-
- International Accreditation Japan (IAJapan) is a laboratory accreditation body which has signed MRAs of ILAC (International Laboratory Accreditation Cooperation) and APAC (Asia Pacific Accreditation Cooperation).
 - MRA requirements are, in addition to relevant international standards and guides, requirements for participation in proficiency testing programs, surveillance and reassessment, and the policy for the traceability of measurement for MRA purpose.
 - This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system in accordance with the recognized International Standard ISO 17034:2016.
 - The latest accreditation information is publicly available on IAJapan Website as an accreditation certificate.

< Calibration Laboratory >

General Field of Calibration: Concentration

Date of Initial Accreditation of the Field: 2005-12-26

Laboratory's permanent facility/On-site Calibration: Laboratory's permanent facility

Calibration and Measurement Capabilities

Calibration Procedures# and Type of Instruments/Materials to be calibrated	Range	Expanded Uncertainty* (Level of Confidence Approximately 95 %)
pH Standard Solutions	Oxalate pH standard solution	1.679
	Phthalate pH standard solution	4.008
	Phosphate Equimolar pH standard solution	6.865
	Phosphate pH standard solution	7.413
	Tetraborate pH standard solution	9.18
	Carbonate pH standard solution	10.012
Standard Solutions except pH Standard Solutions	Aluminum standard solution	1000 mg/L
	Arsenic standard solution	100 mg/L
		1000 mg/L
	Bismuth standard solution	1000 mg/L
	Calcium standard solution	1000 mg/L
	Cadmium standard solution	100 mg/L
		1000 mg/L
	Cobalt standard solution	1000 mg/L
	Chromium standard solution	100 mg/L
		1000 mg/L
	Copper standard solution	100 mg/L
		1000 mg/L
	Iron standard solution	100 mg/L
		1000 mg/L
	Mercury standard solution	100 mg/L
		1000 mg/L
	Potassium standard solution	1000 mg/L
	Magnesium standard solution	1000 mg/L
	Manganese standard solution	100 mg/L
		1000 mg/L
	Sodium standard solution	1000 mg/L
	Nickel standard solution	1000 mg/L
	Lead standard solution	100 mg/L
		1000 mg/L
	Antimony standard solution	1000 mg/L
	Zinc standard solution	100 mg/L
		1000 mg/L
	Barium standard solution	1000 mg/L
	Lithium standard solution	1000 mg/L
	Molybdenum standard solution	1000 mg/L
	Rubidium standard solution	1000 mg/L
	Selenium standard solution	1000 mg/L
	Tin standard solution	1000 mg/L
	Strontium standard solution	1000 mg/L
	Thallium standard	1000 mg/L
	Boron standard solution	1000 mg/L

Standard Solutions except pH Standard Solutions	Cesium standard solution	1000 mg/L	0.7 %
	Gallium standard solution	1000 mg/L	0.5 %
	Indium standard solution	1000 mg/L	0.7 %
	Tellurium standard solution	1000 mg/L	1.5 %
	Vanadium standard solution	1000 mg/L	0.7 %
	Silver standard solution	1000 mg/L	0.4 %
	Beryllium standard solution	1000 mg/L	0.7 %
	Ammonium ion standard solution	1000 mg/L	0.8 %
	Bromide ion standard solution	1000 mg/L	0.6 %
	Chloride ion standard solution	1000 mg/L	0.6 %
	Fluoride ion standard solution	1000 mg/L	0.7 %
	Nitrate ion standard solution	1000 mg/L	0.8 %
		4430 mg/L	0.9 %
	Nitrite ion standard solution	1000 mg/L	0.8 %
		3280 mg/L	0.9 %
	Phosphate ion standard solution	1000 mg/L	0.7 %
		3070 mg/L	0.7 %
	Sulfate ion standard solution	1000 mg/L	0.9 %
		3000 mg/L	1.1 %
	Chlorate ion standard solution	1000 mg/L	0.7 %
	Bromate ion standard solution	2000 mg/L	0.5 %
	Chlorite ion standard solution	1000 mg/L	1.9 %
	Formaldehyde standard solution	1000 mg/L	4.8 %
	Total organic carbon standard solution	1000 mg/L	0.6 %
	Heptaoxyethylene dodecyl ether standard solution	100 mg/L	3.9 %
Standard Solutions except pH Standard Solutions	5 Anion mixture standard solution		
	Fluoride ion standard solution	100 mg/L	0.5 %
	Chloride ion standard solution	200 mg/L	1.3 %
	Nitrite ion standard solution	33 mg/L	1.1 %
	Chlorate ion standard solution	100 mg/L	0.8 %
	Nitrate ion standard solution	443 mg/L	1.3 %
	7 Anion mixture standard solution		
	Fluoride ion standard solution	20 mg/L	2.2 %
	Chloride ion standard solution	20 mg/L	1.7 %
	Nitrite ion standard solution	100 mg/L	1.1 %
	Bromide ion standard solution	100 mg/L	2.3 %
	Nitrate ion standard solution	100 mg/L	1.5 %
	Phosphate ion standard solution	200 mg/L	2.1 %
	Sulfate ion standard solution	100 mg/L	1.7 %

Standard Solutions except pH Standard Solutions	25 VOC mixture standard solution		
	** Any combination of constituents listed as below can be supplied.		
	1,1-Dichloroethylene	1000 mg/L	1.6 %
	Dichloromethane	1000 mg/L	1.2 %
	<i>trans</i> -1,2- Dichloroethylene	1000 mg/L	1.1 %
	<i>tert</i> -Butyl methyl ether	1000 mg/L	0.9 %
	<i>cis</i> -1,2-Dichloroethylene	1000 mg/L	1.1 %
	Chloroform	1000 mg/L	0.9 %
	1,1,1-Trichloroethane	1000 mg/L	1.1 %
	Carbon tetrachloride	1000 mg/L	1.4 %
	Benzene	1000 mg/L	1.2 %
	1,2-Dichloroethane	1000 mg/L	1.3 %
	Trichloroethylene	1000 mg/L	1.1 %
	1,2-Dichloropropane	1000 mg/L	1.0 %
	Bromodichloromethane	1000 mg/L	1.0 %
	<i>cis</i> -1,3- Dichloropropene	1000 mg/L	2.8 %
	Toluene	1000 mg/L	1.0 %
	<i>trans</i> -1,3-Dichloropropene	1000 mg/L	4.1 %
	Tetrachloroethylene	1000 mg/L	1.0 %
	Dibromochloromethane	1000 mg/L	1.1 %
	<i>o</i> -Xylene	1000 mg/L	1.1 %
	Tribromomethane	1000 mg/L	1.1 %
	1,4-Dichlorobenzene	1000 mg/L	1.0 %
	1,4-dioxane	1000 mg/L	2.5 %
	<i>p</i> -Xylene	1000 mg/L	0.7 %
	<i>m</i> -Xylene	1000 mg/L	0.8 %
	1,1,2-Trichloroethane	1000 mg/L	0.8 %
	2 Musty odor substances mixture standard solution		
	2-Methylisoborneol	100 mg/L	2.2 %
	Geosmin	100 mg/L	1.9 %
	6 Phenols mixture standard solution		
	2-Chlorophenol	1000 mg/L	2.1 %
	Phenol	1000 mg/L	2.2 %
	2,6-Dichlorophenol	1000 mg/L	2.3 %
	2,4-Dichlorophenol	1000 mg/L	2.3 %
	2,4,6-Trichlorophenol	1000 mg/L	2.4 %
	4-Chlorophenol	1000 mg/L	2.3 %
	4 Haloacetic acid mixture standard solution		
	Chloroacetic acid	1000 mg/L	2.8%
	Dichloroacetic acid	1000 mg/L	3.0 %
	Bromoacetic acid	1000 mg/L	2.8 %
	Trichloroacetic acid	1000 mg/L	3.1 %
	5 Anionic surfactants mixture standard solution		
	Sodium Decylbenzenesulfonate	100 mg/L	4.8 %
	Sodium Undecylbenzenesulfonate	100 mg/L	4.9 %
	Sodium Dodecylbenzenesulfonate	100 mg/L	4.9 %
	Sodium Tridecylbenzenesulfonate	100 mg/L	5.2 %
	Sodium Tetradecylbenzenesulfonate	100 mg/L	5.0 %

#All Calibration Procedures are in-house procedures developed by this laboratory.

* relative value

<Reference Material Producer>

Category: Concentration

Date of Initial Accreditation of the Field: 2007-10-24

Type: Certified Reference Material

The Approach Used to Assign a Property Value: Measurement by a Single Method in a Single Laboratory (ISO 17034:2016 7.12.3 NOTE 1 d))

Sub-category and Property		Range	Expanded Uncertainty ^{*1} (Level of Confidence Approximately 95 %)	Characterization Techniques ^{*2}
pH Standard Solutions	Oxalate pH standard solution	1.679	0.008	Glass electrode method
	Phthalate pH standard solution	4.008	0.009	
	Phosphate equimolal pH standard solution	6.865	0.010	
	Phosphate pH standard solution	7.413	0.009	
	Tetraborate pH standard solution	9.18	0.012	
	Carbonate pH standard solution	10.012	0.014	
Standard Solutions except pH Standard Solutions	Aluminum standard solution	1000 mg/L	0.5 %	Titration
	Arsenic standard solution	1000 mg/L	0.5 %	Titration
		100 mg/L	1.3 %	
	Bismuth standard solution	1000 mg/L	1.0 %	Titration
	Calcium standard solution	1000 mg/L	0.6 %	Titration
	Cadmium standard solution	100 mg/L	0.9 %	Titration
		1000 mg/L	0.5 %	
	Cobalt standard solution	1000 mg/L	0.6 %	Titration
	Chromium standard solution	100 mg/L	0.8 %	Titration
		1000 mg/L	0.7 %	
	Copper standard solution	100 mg/L	1.0 %	Titration
		1000 mg/L	0.7 %	
	Iron standard solution	100 mg/L	1.1 %	Titration
		1000 mg/L	0.7 %	
	Mercury standard solution	100 mg/L	0.8 %	Titration
		1000 mg/L	0.6 %	
	Potassium standard solution	1000 mg/L	0.7 %	IC
	Magnesium standard solution	1000 mg/L	0.6 %	Titration
	Manganese standard solution	100 mg/L	0.9 %	Titration
		1000 mg/L	0.4 %	
	Sodium standard solution	1000 mg/L	0.7 %	IC
	Nickel standard solution	1000 mg/L	0.5 %	Titration
	Lead standard solution	100 mg/L	1.3 %	Titration
		1000 mg/L	0.7 %	
	Antimony standard solution	1000 mg/L	0.4 %	Titration
	Zinc standard solution	100 mg/L	0.9 %	Titration
		1000 mg/L	0.5 %	
	Barium standard solution	1000 mg/L	0.7 %	Titration
	Lithium standard solution	1000 mg/L	0.6 %	IC
	Molybdenum standard solution	1000 mg/L	0.6 %	Titration
	Rubidium standard solution	1000 mg/L	0.9 %	IC
	Selenium standard solution	1000 mg/L	1.0 %	Titration
	Tin standard solution	1000 mg/L	0.7 %	Titration
	Strontium standard solution	1000 mg/L	0.5 %	Titration
	Thallium standard	1000 mg/L	0.6 %	Titration
	Boron standard solution	1000 mg/L	0.5 %	Titration
	Cesium standard solution	1000 mg/L	0.7 %	IC
	Gallium standard solution	1000 mg/L	0.5 %	Titration
	Indium standard solution	1000 mg/L	0.7 %	Titration
	Tellurium standard solution	1000 mg/L	1.5 %	Titration

	Vanadium standard solution	1000 mg/L	0.7 %	Titration
	Silver standard solution	1000 mg/L	0.4 %	Titration
	Beryllium standard solution	1000 mg/L	0.7 %	ICP-OES
	Ammonium ion standard solution	1000 mg/L	0.8 %	Titration
	Bromide ion standard solution	1000 mg/L	0.6 %	Titration
	Chloride ion standard solution	1000 mg/L	0.6 %	Titration
	Fluoride ion standard solution	1000 mg/L	0.7 %	Titration
	Nitrate ion standard solution	1000 mg/L	0.8 %	IC
		4430 mg/L	0.9 %	
	Nitrite ion standard solution	1000 mg/L	0.8 %	IC
		3280 mg/L	0.9 %	
	Phosphate ion standard solution	1000 mg/L	0.7 %	IC
		3070 mg/L	0.7 %	IC
	Sulfate ion standard solution	1000 mg/L	0.9%	IC
		3000 mg/L	1.1 %	IC
	Chlorate ion standard solution	1000 mg/L	0.7 %	IC
	Bromate ion standard solution	2000 mg/L	0.5 %	IC
	Chlorite ion standard solution	1000 mg/L	1.9 %	IC
	Formaldehyde standard solution	1000 mg/L	4.8 %	GC
	Total organic carbon standard solution	1000 mg/L	0.6 %	HPLC
	Heptaooxyethylene dodecyl ether standard solution	100 mg/L	3.9 %	HPLC

Standard Solutions except pH Standard Solutions	5 Anion mixture standard solution			
	Fluoride ion standard solution	100 mg/L	0.5 %	IC
	Chloride ion standard solution	200 mg/L	1.3 %	
	Nitrite ion standard solution	33 mg/L	1.1 %	
	Chlorate ion standard solution	100 mg/L	0.8 %	
	Nitrate ion standard solution	443 mg/L	1.3 %	
	7 Anion mixture standard solution			
	Fluoride ion standard solution	20 mg/L	2.2 %	IC
	Chloride ion standard solution	20 mg/L	1.7 %	
	Nitrite ion standard solution	100 mg/L	1.1 %	
	Bromide ion standard solution	100 mg/L	2.3 %	
	Nitrate ion standard solution	100 mg/L	1.5 %	
	Phosphate ion standard solution	200 mg/L	2.1 %	
	Sulfate ion standard solution	100 mg/L	1.7 %	

Standard Solutions except pH Standard Solutions	25 VOC mixture standard solution			GC
	** Any combination of constituents listed as below can be supplied.			
	1,1-Dichloroethylene	1000 mg/L	1.6 %	
	Dichloromethane	1000 mg/L	1.2 %	
	<i>trans</i> -1,2- Dichloroethylene	1000 mg/L	1.1 %	
	<i>tert</i> -Butyl methyl ether	1000 mg/L	0.9 %	
	<i>cis</i> -1,2-Dichloroethylene	1000 mg/L	1.1 %	
	Chloroform	1000 mg/L	0.9 %	
	1,1,1-Trichloroethane	1000 mg/L	1.1 %	
	Carbon tetrachloride	1000 mg/L	1.4 %	
	Benzene	1000 mg/L	1.2 %	
	1,2-Dichloroethane	1000 mg/L	1.3 %	
	Trichloroethylene	1000 mg/L	1.1 %	
	1,2-Dichloropropane	1000 mg/L	1.0 %	
	Bromodichloromethane	1000 mg/L	1.0 %	
	<i>cis</i> -1,3- Dichloropropene	1000 mg/L	2.8 %	
	Toluene	1000 mg/L	1.0 %	
	<i>trans</i> -1,3-Dichloropropene	1000 mg/L	4.1 %	
	Tetrachloroethylene	1000 mg/L	1.0 %	
	Dibromochloromethane	1000 mg/L	1.1 %	
	<i>o</i> -Xylene	1000 mg/L	1.1 %	
	Tribromomethane	1000 mg/L	1.1 %	
	1,4-Dichlorobenzene	1000 mg/L	1.0 %	
	1,4-dioxane	1000 mg/L	2.5 %	
	<i>p</i> -Xylene	1000 mg/L	0.7 %	
	<i>m</i> -Xylene	1000 mg/L	0.8 %	
	1,1,2-Trichloroethane	1000 mg/L	0.8 %	
	2 Musty odor substances mixture standard solution			
	2-Methylisoborneol	100 mg/L	2.2 %	GC
	Geosmin	100 mg/L	1.9 %	
	6 Phenols mixture standard solution			
	2-Chlorophenol	1000 mg/L	2.1 %	GC
	Phenol	1000 mg/L	2.2 %	
	2,6-Dichlorophenol	1000 mg/L	2.3 %	
	2,4-Dichlorophenol	1000 mg/L	2.3 %	
	2,4,6-Trichlorophenol	1000 mg/L	2.4 %	
	4-Chlorophenol	1000 mg/L	2.3 %	
	4 Haloacetic acid mixture standard solution			
	Chloroacetic acid	1000 mg/L	2.8 %	HPLC
	Dichloroacetic acid	1000 mg/L	3.0 %	
	Bromoacetic acid	1000 mg/L	2.8 %	
	Trichloroacetic acid	1000 mg/L	3.1 %	
	5 Anionic surfactants mixture standard solution			
	Sodium Decylbenzenesulfonate	100 mg/L	4.8 %	HPLC
	Sodium Undecylbenzenesulfonate	100 mg/L	4.9 %	
	Sodium Dodecylbenzenesulfonate	100 mg/L	4.9 %	
	Sodium Tridecylbenzenesulfonate	100 mg/L	5.2 %	
	Sodium Tetradecylbenzenesulfonate	100 mg/L	5.0 %	

*1 relative value

*2 IC: Ion chromatography

GC: Gas chromatography

HPLC: High-performance liquid chromatography

ICP-OES: Inductively coupled plasma optical emission spectrometry