ISO 17034:2016

Relevant for
Sigma-Aldrich Production GmbH,
Industriestrasse 25, 9470 Buchs
An affiliate of Merck KGaA, Darmstadt, Germany

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Swiss Accreditation Service SAS

Based on the Accreditation and Designation Ordinance dated 17 June 1996 and on the advice of the Federal Accreditation Commission, the Swiss Accreditation Service (SAS) grants to

Sigma-Aldrich Production GmbH
Industriestrasse 25
9470 Buchs

Period of accreditation:
05.09.2022 until 04.09.2027
(1st accreditation: 14.11.2007)

the accreditation as

Producer of certified reference materials in the fields of organic compounds, organic and inorganic pure substances, solutions and microbiological discs

International standard:	ISO 17034:2016
Swiss standard:	SN EN ISO 17034:2017

3003 Berne, 29.08.2022
Swiss Accreditation Service SAS

pp.

Head of SAS
Konrad Flück

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Federal Department of Economic Affairs,
Education and Research EAER

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Swiss Accreditation Service SAS

SRMS Directory

Accreditation number: SRMS 0001

International standard:	ISO 17034:2016
Swiss standard:	SN EN ISO 17034:2017

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Current accreditation:	05.09.2022 to 04.09.2027
Scope of accreditation see:	www.sas.admin.ch (Accredited bodies)

Scope of accreditation as of 05.09.2022

Producer of certified reference materials in the fields of organic compounds, organic and inorganic pure substances, solutions and microbiological discs.

Reference material matrix / artefact	Properties characterized	Approach used to assign property values
CHEMICAL REFERENCE MATERIALS		
Organic compounds	Mass fraction of main or minor component	Quantitative determination by quantitative performance NMR spectroscopy (qNMR) (a, b, d)[1]
Organic compounds	Mass fraction of main or minor component	Quantitative determination by LC-MS (IDMS) (a, d)[1]
Organic compounds	Mass fraction of main or minor component	Quantitative determination by LC-MS (a, d)[1]
Organic compounds	Mass fraction of main or minor component	Quantitative determination by LC-CAD (a, d)[1]
Organic compounds	Mass fraction of main or minor component	Quantitative determination by LC-UV (a, d)[1]
Organic compounds	Mass fraction of main or minor component	Quantitative determination by GC-MS (IDMS) (a, d)[1]

SRMS Directory

Accreditation number: SRMS 0001

Reference material matrix / artefact	Properties characterized	Approach used to assign property values
Organic compounds	Mass fraction of main or minor component	Quantitative determination by GC-MS (a, d)[1]
Organic compounds	Mass fraction of main or minor component	Quantitative determination by GC-FID (a, d)[1]
Organic and inorganic pure substances	Mass fraction of the main component	Quantitative determination by metrological precision titration (a, d)[1]
Organic and inorganic pure substances	Mass fraction of main analyte	Quantitative determination by ICP-OES (a, d)[1]
Organic and inorganic pure substances	Mass fraction of minor components in the pure substance	Quantitative determination by ICP-OES, ICP-MS, AAS (a, d)[1]
Organic and inorganic pure substances	Mass fraction of minor components in the pure substance	Quantitative determination by IC (a, d)[1]
Organic and inorganic pure substances	Mass fraction of main analyte	Quantitative determination by IC (a, d)[1]
Solutions	Mass fraction of single or multiple components	Gravimetric production with high precision weighing, starting from pure or high purity starting materials, the content of which has been characterized by the 100% minus impurities approach or by qNMR, LC-MS, LC-CAD, LC-UV, LC-IDMS, IC, titration, GC-MS, GC-IDMS, GC-FID or ICP-OES. (b, e)[1]
Solutions	Mass fraction of single component	Quantitative determination of the main analyte by metrological precision titration (a, d)[1]
Solutions	Mass fraction of single component	Quantitative determination of the main analyte by ICP-OES (a, d)[1]
Solutions	Mass fraction of single or multiple components	Quantitative determination of minor components by ICP-OES, ICP-MS, AAS (a, d)[1]
Solutions	Mass fraction of single or multiple components	Quantitative determination of the main analyte and/or minor components by IC (a, d)[1]
Solutions	Mass fraction of single or multiple components	Quantitative determination of the main analyte and/or minor components by quantitative NMR spectrometry (qNMR) (a, d)[1]
Solutions	Mass fraction of single or multiple components	Quantitative determination of the main analyte and/or minor components by LC-MS (IDMS) (a, d)[1]

SRMS Directory

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Reference material matrix / artefact	Properties characterized	Approach used to assign property values
Solutions	Mass fraction of single or multiple components	Quantitative determination of the main analyte and/or minor components by LC-MS (a, d)[1]
Solutions	Mass fraction of single or multiple components	Quantitative determination of the main analyte and/or minor components by LC-CAD (a, d)[1]
Solutions	Mass fraction of single or multiple components	Quantitative determination of the main analyte and/or minor components by LC-UV (a, d)[1]
Solutions	Mass fraction of single or multiple components	Quantitative determination of the main analyte and/or minor components by GC-MS (IDMS) (a, d)[1]
Solutions	Mass fraction of single or multiple components	Quantitative determination of the main analyte and/or minor components by GC-MS (a, d)[1]
Solutions	Mass fraction of single or multiple components	Quantitative determination of the main analyte and/or minor components by GC-FID (a, d)[1]
MICROBIOLOGICAL REFERENCE MATERIALS		
Plano-convex discs	Number of colony-forming bacteria, yeasts, moulds	Cultural quantitative methods of determination by a laboratory using reference methods (a)[1]

In case of contradictions in the language versions of the directories, the German version shall apply.

[1] Categories according to the standard SN EN ISO 17034:2017 § 7.12.3:

a) using a single reference measurement procedure (as defined in ISO/IEC Guide 99) in a single laboratory

b) characterization of a non-operationally defined measurand using two or more methods of demonstrable accuracy in one or more competent laboratories

c) characterization of an operationally defined measurand using a network of competent laboratories

d) value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory

e) characterization based on mass or volume of ingredients used in the preparation of the RM

Abbreviation	Signification
CAD	Charged aerosol detector
CFU	Colony forming unit
CRM	Certified reference material

SRMS Directory

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Abbreviation	Signification
GC	Gas chromatography
IC	Ion chromatography
ICP-OES	Inductively coupled plasma optical emission spectrometry
ICP-MS	Inductively coupled plasma combined with mass spectrometry
IDMS	Isotope dilution mass spectrometry
LC	Liquid chromatography
MS	Mass spectrometry
NMR	Nuclear magnetic resonance
UV	Ultraviolet

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