Agilent CrossLab
From Insight to Outcome

Wastewater Standards

Your essential resource for Agilent ULTRA chemical standards









Agilent

Table of contents

Introduction **3**

About Agilent standards 3

Products 3

Markets 3

Custom products 3

Quality control laboratory 4

Quality control validation levels 4

Triple certification 5

Level 2 reference material Certificate of Analysis 6

GHS compliance 7

EPA Methods **8**

EPA Method 601 8

EPA Method 602 9

EPA Method 603 10

EPA Method 604 11

EPA Method 605 12

EPA Method 606 12

EPA Method 607 13

EPA Method 608, 608.1, 608.2 14

EPA Method 609 15

EPA Method 610 16

EPA Method 611 17

EPA Method 612 17

EPA Method 613 18

EPA Method 614, 614.1 18

EPA Method 615 19

EPA Method 619 20

EPA Method 622 21

EPA Method 624 22

EPA Method 625 23

EPA Method 625 high concentration calibration standards 24/25

Surrogate and internal standards for EPA Method 625 25

GC/MS calibration and tuning standards EPA Method 625 26

EPA Method 625 additional calibration standards 27

EPA Method 632 28

EPA Method 632.1 28

EPA Method 633 28

EPA Non-Conventional Pesticides Method standards 29

EPA Method 680 30/31

EPA Method 1311 32/33

EPA Method 1664, 1664A 34

Agilent Service and Support **35**

About Agilent standards

Agilent is a global leader in chromatography and spectroscopy, as well as an expert in chemical standards manufacturing. Agilent offers certified reference materials, QC standards, reagents, and buffers to complement our extensive line of instruments, columns, sample preparation products, consumables, and services. Our portfolio provides laboratories with full workflow solutions for efficient, accurate results.

Agilent has an extensive list of chemical standards, matched by expertise in designing and formulating custom standards to exacting specifications. Agilent products are available through our global distribution channels, and with our logistics capabilities we offer rapid turnaround time on all orders.

With over 40 years of technical expertise in measurement science, we provide innovative, quality products to address the entire analytical chemistry workflow for laboratories around the world.

Products

- Certified reference materials (CRM)
- Reference materials (RM)
- Calibration standards
- IQ/OQ/PQ standards
- Linearity standards
- Quality check samples
- Buffers and reagents
- Wash solution and diluents

Markets

Environmental

- Petrochemicals
- PCB/PBB
- Halocarbons
- VOC/Semi-VOC
- Pesticides
- Dioxins and furans

Food and Beverages

- Allergens
- Amino and nitroaromatics
- Pharma and vet drugs
- PAHs
- Lipids
- Food authenticity
- Phenols
- Dyes

Life Science

- Pharmaceutical
- Biopharma
- Academic and research
- University
- Governmental

Industrial and Mining

Petrochemical

- Matrix oils
- Metals in biodiesel
- Organometallic

Elemental Analysis

- Single element
- Multi-element

Custom products

Do you need a custom defined reference material or other chemical solution unique to your laboratory or testing procedure? If the product you require is not available as an Agilent product, we can prepare it for you on a custom basis. Custom reference materials are a fast, economical way to meet your specific laboratory needs.

Agilent maintains an expansive compatibility database, integrating 40 years of manufacturing and quality control data to create stable and reliable custom product formulations. Choose from any of our three quality control validation levels (see Page 4).

Visit **www.agilent.com/chem/standards** to request a quote.

Quality control laboratory



Agilent operates an ISO 17025 accredited quality control laboratory and is accredited to ISO Guide 34 as a reference material producer for the manufacture of certified reference materials (CRM).

Rely on the expertise of our applications development group for:

- Method development
- Pre- and postfill analysis
- Stability testing and protocols
- Homogeneity testing

Quality control validation levels

Chemical standards manufactured by Agilent are supplied with a lot-specific certificate of analysis (C of A) that reflects the associated quality control validation level. Certificates of analysis can ship with the product and are available online. All Agilent products, unless otherwise stated, are Level II - ISO Guide 34 reference materials.

		Reported Value	Reported Uncertainty	Former Name	Solutions	Neats	Lead Time (Customs)
Level I	ISO Guide 34 RM	True (calculated)	U_{char}	Gravimetric	Y	Y	5 business days
Level II	ISO Guide 34 RM	True (analytical)	U_{char}	Full validation	Y	Y	7 to 10 business days
Level III	ISO Guide 34	Certified	U_{exp}	ISO Guide 34	Y		15 to 20 business days

Level I solution: A reference material (RM) prepared gravimetrically in accordance with ISO Guide 34 and under the Agilent ISO 9001 registered quality system. The neat materials used for the product are verified by an Agilent ISO 17025 laboratory and under the Agilent ISO Guide 34 accreditation. For each analyte, the true value, with its uncertainty value calculated at 95% confidence level, is reported.

Level I neat: RM prepared in accordance with ISO Guide 34 and under the Agilent ISO 9001 registered quality system. The true value (% purity) is reported.

Level II solution: RM prepared gravimetrically in accordance with ISO Guide 34 and under the Agilent ISO 9001 registered quality system. The neat materials used for the product are verified by an Agilent ISO 17025 laboratory and under the Agilent ISO Guide 34 accreditation. The analyte concentrations are verified by an Agilent ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at 95% confidence level, is reported.

Level II neat: RM prepared in accordance with ISO Guide 34 and under the Agilent ISO 9001 registered quality system. The materials used for this product are verified by the Agilent ISO 17025 laboratory and under the Agilent ISO Guide 34 accreditation. The true value (% purity), with its uncertainty value calculated at 95% confidence level, is reported.

Level III solution: RM prepared gravimetrically in accordance with ISO Guide 34 and under the Agilent ISO 9001 registered quality system. The neat materials used for this product are verified by the Agilent ISO 17025 laboratory and under the Agilent ISO Guide 34 accreditation. The analyte concentrations are verified by an Agilent ISO 17025 accredited laboratory. For each analyte, the certified value is reported with its uncertainty value calculated as the expanded uncertainty, in accordance with ISO Guide 35.

Triple certification

Agilent is committed to product integrity by offering customers the assurance of triple certification to ISO standards.

Agilent operates under an ISO 9001 registered quality management system, where an accrediting body (TUV) attests to the quality of our methods, procedures, testing, production, and record keeping.

Our quality control laboratory is accredited to ISO 17025 (ANAB) for technical competence to perform testing of organic and inorganic materials and certified reference materials, as defined in our scope, accessible online at **www.agilent.com/chem/17025**

Agilent is further accredited to ISO Guide 34 (ANAB) for technical competence as a reference material producer of certified reference materials. This requires Agilent to identify and document the major components of uncertainty including homogeneity, short- and long-term stability, and uncertainty due to analytical characterization and manufacturing.

The most current Agilent certifications are accessible at **www.agilent.com/quality**

Tips and tools

To view our entire portfolio of over 7,000 standards, all manufactured under ISO 17025 Guide 34, visit **www.agilent.com/chem/standards**

Level 2 reference material Certificate of Analysis

Agilent

Certificate of Analysis
ISO Guide 34

C4-C24 Even Carbon Saturated FAME Mix

Product Number: 5191-4278 **Page:** 1 of 1

Lot Number: CR-5364 **Lot Issue Date:** 17-Nov-2017 **Expiration Date:** 31-Dec-2019

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
methyl butanoate	000623-42-7	RM04575	1005 ± 5 µg/mL
methyl hexanoate	000106-70-7	NT01630	1005 ± 5 µg/mL
methyl octanoate	000111-11-5	NT01094	1003 ± 5 µg/mL
methyl decanoate	000110-42-9	NT00187	1004 ± 5 µg/mL
methyl laurate	000111-82-0	NT01095	1003 ± 5 µg/mL
methyl tetradecanoate	000124-10-7	NT00188	1003 ± 5 µg/mL
methyl palmitate	000112-39-0	RM07128	1001 ± 5 µg/mL
methyl octadecanoate	000112-61-8	RM12285	1002 ± 5 µg/mL
methyl arachidate	001120-28-1	RM11588	1003 ± 5 µg/mL
methyl docosanoate	000929-77-1	NT01096	1004 ± 5 µg/mL
tetracosanoic acid methyl ester	002442-49-1	NT01097	1004 ± 5 µg/mL

Matrix: hexane

Storage: Store Refrigerated (2° - 8°C).

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

Monica Bourgeois
QMS Representative

ANAB ACCREDITED
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED
ISO17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 **www.agilent.com/quality**

An example of a Certificate of Analysis for an Agilent reference material.

GHS compliance

Agilent is a certified GHS author for SDS and GHS compliant labeling. Chemical products manufactured and distributed by Agilent are compliant with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Safety Data Sheets (SDS) and labels are prepared in accordance with regulations and in the following languages:

European CLP Regulation
Regulation 1272/2008

- Chinese (standard Mandarin)
- Czech
- Danish
- Dutch
- English
- Estonian
- Finnish
- French
- German
- Italian
- Japanese
- Korean
- Polish
- Portuguese
- Romanian
- Russian
- Spanish
- Swedish

USA GHS-OSHA Regulation
Hazcom 2012

- English
- Spanish
- French

Chinese GHS Regulation
GB/T 17519-2013 and GB/T 16483-2008

- Chinese (standard Mandarin)
- English

Additional languages are available upon request.
As regulations are updated and expanded, Agilent will maintain up-to-date records online at **www.agilent.com**

Tips and tools

To view our entire portfolio of over 7,000 standards, all manufactured under ISO 17025 Guide 34, visit **www.agilent.com/chem/standards**

EPA Method 601

Purgeable halocarbons

Method 601 is a purge and trap method for determining purgeable halocarbons using an electrolytic conductivity (Hall) detector.

Recommended Method 601 Purgeable Halocarbon Mixture

Description	Analytes			Total Vol.	Part No.
28 analytes, in methanol, at 100 µg/mL	Bromodichloromethane Bromoform Bromomethane Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene	1,4-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene trans- 1,2-Dichloroethene 1,2-Dichloropropane *cis*-1,3-Dichloropropene *trans*-1,3-Dichloropropene Dibromochloromethane	Dichlorodifluoromethane Methylene chloride Tetrachloroethene 1,1,2,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethene Trichlorofluoromethane Vinyl chloride	1 x 1 mL	HM-601-1

Recommended Method 601 2-Chloroethyl Vinyl Ether Standards

Description	Standard	Total Vol.	Part No. 100 µg/mL	Part No. 5,000 µg/mL
1 standard, in methanol	2-Chloroethyl vinyl ether	1 x 1 mL	HC-070-1	EPA-1016-1

Purgeable Gas Mixture

Description	Analytes			Total Vol.	Part No.
5 analytes, at 100 µg/mL, in methanol	Bromomethane Chloroethane	Chloromethane Dichlorodifluoromethane	Vinyl chloride	1 x 1 mL	HCM-601G-1

Recommended Method 601 Surrogate Standard Mixture

Description	Analytes		Total Vol.	Part No. 2,000 µg/mL	Part No. 20,000 µg/mL
3 analytes, in methanol	Bromochloromethane 2-Bromo-1-chloropropane	1,4-Dichlorobutane	1 x 1 mL	STM-290N-1	STM-291-1

Individual Internal and Surrogate Standards for Method 601

Description	Standards	Total Vol.	Part No.
All at 2,000 µg/mL, in methanol	Bromochloromethane	1 x 1 mL ampoules	STS-180-1
	2-Bromo-1-chloropropane		STS-190-1
	1,4-Dichlorobutane		STS-200-1

Recommended Standards

EPA Method 601	Part No.
Calibration standards	HCM-601-1 HC-070-1
Surrogate standard	STM-290N-1

Technical note

2-Chloroethyl vinyl ether is stable in solution by itself, but breaks down in the presence of other halocarbons. Therefore, this analyte is packaged as a single component solution. If you prepare a working standard that contains 2-chloroethyl vinyl ether mixed with other halocarbons, be sure to monitor the stability of this analyte.

EPA Method 602

Dibromoethane and dibromochloropropane

Method 602 is a purge and trap method for determining purgeable aromatics, using a PID.

Recommended Method 602 Purgeable Aromatics Mixtures

Description	Analytes		Total Vol.	Part No. 100 µL/mL	Part No. 200 µL/mL	Part No. 2,000 µL/mL
7 analytes, in methanol	1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Benzene	Chlorobenzene Ethylbenzene Toluene	1 x 1 mL	AMM-602N-1	AMM-603-1	AMM-604-1

Recommended Internal and Surrogate Standards

Description	Standard	Total Vol.	Part No. 200 µL/mL	Part No. 2,000 µL/mL	Part No. 20,000 µL/mL
1 standard, in methanol	α,α,α-Trifluorotoluene	1 x 1 mL	STS-221-1	STS-220N-1	STS-222-1

Target Analyte Mixture

Description	Analytes			Total Vol.	Part No. 200 µg/mL	Part No. 2,000 µg/mL
26 analytes, in methanol	Benzene Carbon tetrachloride Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene	*cis*-1,2-Dichloroethene *trans*-1,2-Dichloroethene 1,2-Dichloropropane *cis*-1,3-Dichloropropene *trans*-1,3-Dichloropropene Ethylbenzene Methylene chloride Methyl *tert*-butyl ether (MTBE) 1,1,1-Trichloroethane	1,1,2-Trichloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethene Toluene Trichloroethene *o*-Xylene *m*-Xylene *p*-Xylene	1 x 1 mL	HCM-625-1	HCM-630-1

Purgeable Aromatics Mixtures

Description	Analytes			Total Vol.	Part No. 200 µL/mL	Part No. 2,000 µL/mL
11 analytes, in methanol	Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene	1,4-Dichlorobenzene Ethylbenzene Methyl *tert*-butyl ether Toluene	*o*-Xylene *m*-Xylene *p*-Xylene	1 x 1 mL	AMM-622-1	SCA-100-1

Purgeable Aromatics Kit

Description	Analytes		Part No.
Contains 8 ampoules, 1 x 1 mL of each component, at 100 µg/mL, in methanol	Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene	1,4-Dichlorobenzene Ethylbenzene Toluene Purgeable aromatics mixture (AMM-602N-1)	AMK-602

Recommended Standards

EPA Method 602	Part No.
Calibration standard	AMM-602N-1
Internal and surrogate standard	STS-220N-1

EPA Method 603

Acrolein and acrylonitrile

Method 603 is a purge and trap method for determining acrolein and acrylonitrile, using a flame ionization detector.

Recommended Method 603 Acrolein-Acrylonitrile Mixtures

Description	Analytes		Total Vol.	Part No. 100 µg/mL	Part No. 2,000 µg/mL
2 analytes, in methanol (see Technical note)	Acrolein	Acrylonitrile	1 x 1 mL	AMN-603-1	AMN-623-1

Acrolein-Acrylonitrile Mixtures in Water

Description	Analytes		Total Vol.	Part No. 1,000 µg/mL	Part No. 10,000 µg/mL
2 analytes, in water (see Technical note)	Acrolein	Acrylonitrile	1 x 1 mL	AMN-613-1	AMN-803-1

Acrolein Standard

Description	Standard	Total Vol.	Part No.
1 standard, at 5,000 µg/mL, in methanol	Acrolein	1 x 1 mL	AMN-171-1

Acrolein Standard

Description	Standard	Total Vol.	Part No.
1 standard, at 5,000 µg/mL, in water	Acrolein	1 x 1 mL	AMN-173-1

Acrylonitrile Solution

Description	Standard	Total Vol.	Part No.
1 standard, at 1,000 µg/mL, in water	Acrylonitrile	1 x 1 mL	AMN-181-1

Acrylonitrile Solution

Description	Standard	Total Vol.	Part No.
1 standard, at 2,000 µg/mL, in methanol	Acrylonitrile	1 x 1 mL	AMN-182-1

Recommended Standard

EPA Method 603	Part No.
Calibration standard	AMM-603-1

Technical note

Acrolein is known to undergo polymerization with time. We prepare the standards which contain acrolein every month to ensure the accuracy of each standard's certified values. These standards are assigned expiration dates of three months. We strongly recommend that these standards be used as soon as possible after receipt.

EPA Method 604

Phenols

Method 604 is used to determine phenols. Samples are extracted, then concentrated in a Kuderna-Danish apparatus. Quantitation is by GC/FID, or the extract is derivatized and determined on GC/ECD.

Acids Surrogate Standard Mixture

Description	Analytes		Total Vol.	Part No.
3 analytes, in methanol, at 2,000 µg/mL	2-Fluorophenol Phenol-d_5	2,4,6-Tribromophenol	1 x 1 mL	ISM-290N-1

Phenols Kit

Description	Analytes and Concentration		Part No.
Contains 12 ampoules, 1 x 1 mL of 11 components, and 1 mix, at 100 µg/mL, in methanol	4-Chloro-3-methylphenol 2-Chlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol (1,000 µg/mL) 4,6-Dinitro-2-methylphenol (1,000 µg/mL)	2-Nitrophenol 4-Nitrophenol Pentachlorophenol (1,000 µg/mL) Phenol 2,4,6-Trichlorophenol Phenols mixture (EPA-2008N-1)	PHK-604A

Recommended Internal and Surrogate Standards for Method 604

Description	Standards		Total Vol.	Part No.
All in methanol	2,4,6-Tribromophenol	200 µg/mL	1 x 1 mL ampoules	ATS-182-1
	2-Fluorophenol	2,000 µg/mL		IST-251-1
	Pentafluorophenol	2,000 µg/mL		IST-261-1
	Phenol-d_5	2,000 µg/mL		IST-271-1
	2,4,6-Tribromophenol	2,000 µg/mL		ATS-181-1

Recommended Method 604 Phenols Mixtures

Description	Analytes		Total Vol.	Part No. 2,000 µg/mL in Methylene chloride	Part No. 100 µg/mL in Methanol	Part No. 20 µg/mL in Methanol	Part No. 500 µg/mL in Methanol
11 analytes	4-Chloro-3-methylphenol 2-Chlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2-Methyl-4,6-dinitrophenol	2-Nitrophenol 4-Nitrophenol Pentachlorophenol Phenol 2,4,6-Trichlorophenol	1 x 1 mL	US-107N-1	EPA-2008N-1	PHM-604-1	PHM-624-1
				Part No. 100 µg/mL in Acetonitrile	**Part No. 1,000 µg/mL in Methanol**	**Part No. 1,000 µg/mL in Acetonitrile**	**Part No. 2,000 µg/mL in Methanol**
				PHM-610-1	PHM-625-1	PHM-630-1	PHM-635-1

Technical note

Phenols are subject to absorption on the active sites of GC columns. The more acidic phenols, such as 2,4-dinitrophenol, will chromatograph poorly leading to poor quantitation.

Recommended Standards

EPA Method 604	Part No.
Calibration standards	US-107N-1 EPA-2008N-1
Internal and surrogate standards	IST-251-1 IST-261-1 IST-271-1

EPA Method 605

Benzidines

Method 605 is an HPLC method for benzidines, using an electrochemical detector.

Recommended Method 605 Benzidines Mixtures

Description	Analytes	Total Vol.	Part No. 1,000 µg/mL	Part No. 2,000 µg/mL
2 analytes, in methanol	Benzidine 3,3-Dichlorobenzidine	1 x 1 mL	GCM-111-1	US-105N-1

EPA Method 606

Phthalates

Method 606 is used to measure phthalates. Samples are extracted, concentrated in a Kuderna-Danish apparatus, and then quantitated with GC/ECD.

Recommended Method 606 Phthalates Mixtures

Description	Analytes		Total Vol.	Part No. 100 µg/mL in Methanol	Part No. 200 µg/mL in Methanol	Part No. 1,000 µg/mL in Methanol	Part No. 2,000 µg/mL in Methanol	Part No. 2,000 µg/mL in Isooctane
6 analytes	Bis(2-ethylhexyl) phthalate Butyl benzyl phthalate Di-*n*-butyl phthalate	Diethyl phthalate Dimethyl phthalate Di-*n*-octyl phthalate	1 x 1 mL	PMS-606-1	PMS-620-1	PMS-806-1	PMS-625-1	PMS-630-1

Description	Analytes and Concentration				Total Vol.	Part No.
6 analytes, in acetone	Bis(2-ethylhexyl) phthalate Butyl benzyl phthalate Dimethyl phthalate	50 µg/mL 10 µg/mL 25 µg/mL	Di-*n*-butyl phthalate Diethyl phthalate Di-*n*-octyl phthalate	25 µg/mL 25 µg/mL 50 µg/mL	1 x 1 mL	EPA-2037N-1

Phthalates Kit

Description	Analytes		Part No.
Contains 7 ampoules, 1 x 1 mL of each component, at 100 µg/mL, in methanol, and 1 mix	Bis(2-ethylhexyl) phthalate Butyl benzyl phthalate Di-*n*-butyl phthalate Diethyl phthalate	Dimethyl phthalate Di-*n*-octyl phthalate Phthalates mixture (PSM-606-1)	PSK-606

Recommended Standard

EPA Method 606	Part No.
Calibration standard	PSM-606-1

Technical note

Phthalate esters are contaminants in many products found in the laboratory, particularly plastics. Great care must be taken to prevent contamination. Glassware must be scrupulously cleaned to eliminate backgrounds phthalates not derived from the sample.

EPA Method 607

Nitrosamines

Method 607 is used to measure nitrosamines. Samples are extracted, concentrated in a Kuderna-Danish apparatus, then quantitated with GC and nitrogen-phosphorus detector.

Recommended Method 607 Nitrosamines Mixtures

Description	Analytes	Total Vol.	Part No. 1,000 µg/mL	Part No. 2,000 µg/mL
3 analytes, in methanol	*N*-Nitrosodimethylamine *N*-Nitrosodiphenylamine *N*-Nitrosodi-*n*-propylamine	1 x 1 mL	NSM-810-1	NSM-807-1

Nitrosamines Mixtures

Description	Analytes and Concentration		Total Vol.	Part No.
3 analytes, in methanol	*N*-Nitrosodimethylamine *N*-Nitrosodiphenylamine *N*-Nitrosodi-*n*-propylamine	2,000 µg/mL 4,000 µg/mL 2,000 µg/mL	1 x 1 mL	NSM-815-1

Technical note

N-Nitrosodiphenylamine may undergo transnitrosation reactions in the presence of reactive amines during the solution concentration step. *N*-Nitrosodiphenylamine may also decompose in the gas chromatographic inlet to diphenylamine.

EPA Method 608, 608.1, 608.2

Organochlorine pesticides and PCBs

Method 608 is used to measure organochlorine pesticides and PCBs, using extraction followed by GC/ECD. Methods 608.1 and 608.2 include additional analytes.

Recommended Method 608 Organochlorine Pesticides Mixtures

Description	Analytes		Total Vol.	Part No. 20 µg/mL in Methanol	Part No. 2,000 µg/mL in Hexane/Toluene (1:1)	Part No. 200 µg/mL in Hexane/Toluene (1:1)	Part No. 400 µg/mL in Hexane	Part No. 2,000 µg/mL in Methanol
16 analytes	Aldrin α-BHC β-BHC δ-BHC ϒ-BHC 4,4´-DDD 4,4´-DDE 4,4´-DDT	Dieldrin Endosulfan I Endosulfan II Endosulfan sulfate Endrin Endrin aldehyde Heptachlor Heptachlor epoxide (B)	1 x 1 mL	PPM-608B-1	US-102BN-1	PPM-665-1	PPM-680-1	PPM-695-1

Recommended Method 608 Pesticide Surrogate Standard Spiking Solutions

Description	Analytes		Total Vol.	Part No.
2 analytes, at 200 µg/mL, in acetone	2,4,5,6-Tetrachloro-*m*-xylene	Decachlorobiphenyl	1 x 1 mL	ISM-320-1
2 analytes, at 200 µg/mL, in acetone	Dibutyl chlorendate	2,4,5,6-Tetrachloro-*m*-xylene	1 x 1 mL	ISM-301-1

Organochlorine Pesticides Mixture for EPA Method 608.2

Description	Analytes and Concentration				Total Vol.	Part No.
5 analytes, in hexane	Chlorothalonil DCPA Dichloran	1 µg/mL 3 µg/mL 2 µg/mL	Methoxychlor Permethrin (mixed isomers)	40 µg/mL 400 µg/mL	1 x 1 mL	PPM-608F-1

Pesticide Degradation Check Solution

Description	Analytes and Concentration				Total Vol.	Part No.
2 analytes, in methyl *tert*-butyl ether (MTBE)	4,4´-DDT	200 µg/mL	Endrin	100 µg/mL	1 x 1 mL	ISM-452-1

Aroclors Mixture

Description	Analytes		Total Vol.	Part No.
4 analytes, at 200 µg/mL, in methanol	Aroclor 1016 Aroclor 1232	Aroclor 1248 Aroclor 1260	1 x 1 mL	XY-0130-1

Aroclors Mixture

Description	Analytes		Total Vol.	Part No.
3 analytes, at 200 µg/mL, in methanol	Aroclor 1221 Aroclor 1242	Aroclor 1254	1 x 1 mL	XY-0131-1

Recommended Standards

EPA Method 608, 608.1, 608.2	Part No.
Calibration standards	PPM-608B-1 PPM-608F-1
Surrogate standards	ISM-320-1 ISM-301-1

EPA Method 609

Nitroaromatics and isophorone

Method 609 is used to measure nitroaromatics and isophorone. Samples are extracted, concentrated in a Kuderna-Danish apparatus, then quantitated with GC/FID and GC/ECD.

Nitroaromatics Mixtures

Description	Analytes	Total Vol.	Part No. 200 µg/mL in Methanol	Part No. 1,000 µg/mL in Hexane
2 analytes	2,4-Dinitrotoluene 2,6-Dinitrotoluene	1 x 1 mL	NAIM-610-1	NAIM-611-1

Nitroaromatics and Isophorone Mixtures

Description	Analytes	Total Vol.	Part No. 100 µg/mL in Methanol	Part No. 2,000 µg/mL in Hexane
4 analytes	2,4-Dinitrotoluene 2,6-Dinitrotoluene Isophorone Nitrobenzene	1 x 1 mL	NAIM-609-1	NAIM-625-1

Nitrobenzene and Isophorone Mixtures

Description	Analytes	Total Vol.	Part No. 1,000 µg/mL in Hexane	Part No. 200 µg/mL in Methanol
2 analytes	Isophorone Nitrobenzene	1 x 1 mL	NAIM-620-1	NAIM-615-1

Nitrobenzene and Isophorone Mixture

Description	Analytes and Concentration		Total Vol.	Part No.
4 analytes, in acetone	2,4-Dinitrotoluene 2,6-Dinitrotoluene Isophorone Nitrobenzene	20 µg/mL 20 µg/mL 100 µg/mL 100 µg/mL	1 x 1 mL	NAIM-630-1

Tips and tools

Find more EPA Method standards online at **www.agilent.com/chem/standards**

EPA Method 610

Polynuclear aromatic hydrocarbons

Method 610 is used to measure polynuclear aromatic hydrocarbons, using extraction followed by either GC/FID, or HPLC using a UV or a fluorescence detector.

Recommended Method 610 PAH Mixtures

Description	Analytes		Total Vol.	Part No. 20 µg/mL in Methylene chloride	Part No. 100 µg/mL in Methylene chloride	Part No. 2,000 µg/mL in Methylene chloride/Benzene (1:1)
16 analytes	Acenaphthene Acenaphthylene Anthracene Benz[*a*]anthracene Benzo[*b*]fluoranthene Benzo[*k*]fluoranthene Benzo[*ghi*]perylene Benzo[*a*]pyrene	Chrysene Dibenz[*a,h*]anthracene Fluoranthene Fluorene Indeno[1,2,3-*cd*]pyrene Naphthalene Phenanthrene Pyrene	1 x 1 mL	PM-610-1	PM-611-1	US-106N-1

PAH Kit

Description	Analytes			Part No.
Contains 17 ampoules, 1 x 1 mL of each component, at 100 µg/mL, in methylene chloride	Acenaphthene * Acenaphthylene * Anthracene Benz[*a*]anthracene Benzo[*b*]fluoranthene Benzo[*k*]fluoranthene	Benzo[*ghi*]perylene Benzo[*a*]pyrene Chrysene Dibenz[*a,h*]anthracene Fluoranthene Fluorene *	Indeno[1,2,3-*cd*]pyrene Naphthalene * Phenanthrene Pyrene PAH Mixture (PM-610-1)	PK-610
	(* Methanol solvent)			

PAH Solutions

Description	Analytes		Total Vol.	Part No. 100 µg/mL in Acetonitrile	Part No. 100 µg/mL in Methanol/Methylene chloride (1:1)	Part No. 1,000 µg/mL in Methylene chloride (Dichloromethane)
16 analytes	Acenaphthene Acenaphthylene Anthracene Benz[*a*]anthracene Benzo[*b*]fluoranthene Benzo[*k*]fluoranthene Benzo[*ghi*]perylene Benzo[*a*]pyrene	Chrysene Dibenz[*a,h*]anthracene Fluoranthene Fluorene Indeno[1,2,3-*cd*]pyrene Naphthalene Phenanthrene Pyrene	1 x 1 mL	PAH-600-1	PAH-605-1	PAH-615-1
				Part No. 2,000 µg/mL in Acetone	**Part No. 3,200 µg/mL in Methylene chloride/Benzene (1:1)**	**Part No. 2,000 µg/mL in Benzene/Toluene**
				PAH-635-1	PAH-640-1	PAH-715-1
				Part No. 2,000 µL in Toluene	**Part No. 2,000 µL in Methylene chloride/Benzene (1:1)**	
				PAH-630-1	US-106N-1	

Recommended Standards

EPA Method 610	Part No.
Calibration standards	US-106N-1 PM-611-1

EPA Method 611

Haloethers

Method 611 is used to measure haloethers. Samples are extracted, concentrated in a Kuderna-Danish apparatus, then quantitated using a GC with an electrolytic conductivity detector.

Haloethers Mixtures (HAL)

Description	Analytes		Total Vol.	Part No. 200 µg/mL in Methanol	Part No. 2,000 µg/mL in Acetone
5 analytes	4-Bromophenyl phenyl ether 4-Chlorophenyl phenyl ether Bis(2-chloroethoxy)methane	Bis(2-chloroethyl) ether Bis(2-chloroisopropyl) ether	1 x 1 mL	EPA-2017-1	EPA-2018-1

EPA Method 612

Chlorinated hydrocarbons

Method 612 is used to measure chlorinated hydrocarbons, using extraction followed by GC/ECD.

Recommended Method 612 Chlorinated Hydrocarbons Mixture

Description	Analytes and Concentration				Total Vol.	Part No.
9 analytes, in isoctane	2-Chloronaphthalene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Hexachlorobenzene	400 µg/mL 200 µg/mL 200 µg/mL 400 µg/mL 1 µg/mL	Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane 1,2,4-Trichlorobenzene	1 µg/mL 1 µg/mL 1 µg/mL 40 µg/mL	1 x 1 mL	CHM-622-1

Chlorinated Hydrocarbons Mixtures

Description	Analytes		Total Vol.	Part No. 100 µg/mL in Methanol/Methylene chloride (1:1)	Part No. 2,000 µg/mL in Isoctane
9 analytes	2-Chloronaphthalene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Hexachlorobenzene	Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane 1,2,4-Trichlorobenzene	1 x 1 mL	CHM-612-1	CHM-625-1

Chlorinated Hydrocarbons Kit

Description	Analytes		Part No.
Contains 10 ampoules, 1 x 1 mL of each individual component, at 100 µg/mL, in methanol	2-Chloronaphthalene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Chlorinated hydrocarbons mixture (CHM-612-1)	1,2,4-Trichlorobenzene Hexachlorobutadiene * Hexachlorocyclopentadiene Hexachloroethane Hexachlorobenzene *	CHK-612

(* Methylene chloride solvent)

Recommended Standard

EPA Method 612	Part No.
Calibration standard	CHM-622-1

EPA Method 613

2,3,7,8-TCDD

Method 613 is used to determine 2,3,7,8-tetra-chlorodibenzo-*p*-dioxin, using extraction followed by capillary column GC/MS.

Recommended Method 613 TCDD Solution

Description	Analytes	Total Vol.	Part No.
1 analyte, at 10 µg/mL, in toluene	2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	1 x 1 mL	RPE-029S-1

EPA Method 614, 614.1

Organophosphorus pesticides

Methods 614 and 614.1 are used to measure organophosphorus pesticides. Samples are extracted, then quantitated using GC/NPD.

Recommended Method 614 Organophosphorus Pesticides Mixtures

Description	Analytes		Total Vol.	Part No. 200 µg/mL in Acetone	Part No. 1,000 µg/mL in Hexane/Acetone (1:1)
8 analytes	Azinphos methyl Demeton Diazinon Disulfoton	Ethion Malathion Parathion ethyl Parathion methyl	1 x 1 mL	SPM-614-1	SPM-630-1

Recommended Method 614.1 Organophosphorus Pesticides Mixture

Description	Analytes and Concentration				Total Vol.	Part No.
4 analytes, in hexane	Dioxathion EPN	10 µg/mL 200 µg/mL	Ethion Terbufos	100 µg/mL 4 µg/mL	1 x 1 mL	SPM-624-1

Organophosphorus Pesticides Mixture

Description	Analytes		Total Vol.	Part No.
4 analytes, at 1,000 µg/mL, in hexane/acetone (1:1)	Dioxathion EPN	Ethion Terbufos	1 x 1 mL	SPM-625-1

Individual Internal & Surrogate Standards for Methods 614, 614.1

Description	Analytes	Total Vol.	Part No.
All at 1,000 µg/mL	Terbufos	1 x 1 mL ampoules, all in methanol	PST-1700M1000
	Disulfoton		PST-470M1000
	Dioxathion		PST-455M1000
	Guthion		PST-560K1000
	EPN		PST-520M1000
	Ethion		PST-530M1000
	Parathion (ethyl)		PST-761M1000
	Demeton (total, mixed isomers)		PST-920M1000

Recommended Standards

EPA Method 614, 614.1	Part No.
Calibration standards	SPM-614-1 SPM-624-1

EPA Method 615

Chlorinated herbicides

Method 615 is used to measure chlorinated herbicides. Samples are extracted, derivatized, and quantitated on GC/ECD.

Recommended Method 615 Chlorinated Herbicides Mixtures

Description	Analytes and Concentration				Total Vol.	Part No. Herbicide acids mixture in Methanol	Part No. Methylated herbicide mixture
10 analytes	2,4-D 2,4-DB Dalapon Dicamba Dichlorprop	100 µg/mL 100 µg/mL 250 µg/mL 10 µg/mL 100 µg/mL	Dinoseb MCPA 10,000 MCPP 10,000 Silvex (2,4,5-TP) 2,4,5-T 10	50 µg/mL 10,000 µg/mL 10,000 µg/mL 10 µg/mL 10 µg/mL	1 x 1 mL	HBM-8150A-1	HBM-8150M-1

Chlorinated Herbicides Mixtures

Description	Analytes		Total Vol.	Part No. 20 µg/mL in Methyl *tert*-butyl ether (MTBE)	Part No. 200 µg/mL in Methyl *tert*-butyl ether (MTBE)
8 analytes	2,4-D 2,4-DB Dalapon Dicamba	Dichlorprop Dinoseb Silvex 2,4,5-T	1 x 1 mL	HBM-540-1	HBM-541-1
				Part No. 20 µg/mL in Hexane	**Part No. 200 µg/mL in Hexane**
				HBM-542-1	HBM-543-1

Internal and Surrogate Standard Solutions for Method 615

Description	Analytes	Total Vol.	Part No.
1 standard, at 250 µL, in acetone	4,4-Dibromooctafluorobiphenyl	1 x 1 mL	PPS-171-1
1 standard, at 100 µL, in acetone	2,4-Dichlorophenylacetic acid (DCAA)	1 x 1 mL	PPS-165-1
1 standard, at 1,000 µL, in acetone	2,4-Dichlorophenylacetic acid (DCAA)	1 x 1 mL	PPS-167-1
1 standard, at 100 µL, in methyl ester	DCAA methyl ester	1 x 1 mL	PPS-166-1
1 standard, at 200 µL, in methyl ester	DCAA methyl ester	1 x 1 mL	PST-4065H200A01

Chlorinated Herbicides Mixture

Description	Analytes		Total Vol.	Part No.
10 analytes, at 1,000 µg/mL, in methanol	2,4-D 2,4-DB Dalapon Dicamba Dichlorprop	Dinoseb MCPA MCPP (mecoprop) 2,4,5-T 2,4,5-TP	1 x 1 mL	HBM-545-1

Recommended Standard

EPA Method 615	Part No.
Calibration standard	HBM-8150A-1

EPA Method 619

Triazine pesticides

Method 619 is used to measure triazine pesticides. Samples are extracted, then quantitated using GC/NPD.

Recommended Method 619 Triazine Pesticides Mixtures

Description	Analytes			Total Vol.	Part No. 100 µg/mL in Acetone	Part No. 100 µg/mL in Methanol
11 analytes	Ametryn Atraton Atrazine Prometon	Prometryn Propazine Secbumeton Simazine	Simetryn Terbuthylazine Terbutryn	1 x 1 mL	NPM-619-1	NPM-620-1
					Part No. 500 µg/mL in Acetone	**Part No. 1,000 µg/mL in Acetone**
					NPM-621-1	NPM-625-1

Organophosphorous Pesticides Mixture

Description	Analytes			Total Vol.	Part No.
20 analytes, at 200 µg/mL, in ethyl acetate	Bolstar Chlorpyriphos Coumaphos Demeton (total, mixed isomers) Diazinon Dichlorvos Disulfoton	Ethoprop Fenchlorphos Fensulfothion Fenthion Guthion Merphos Mevinphos	Naled Methyl parathion Phorate Tetrachlorvinphos Tokuthion Trichloronate	1 x 1 mL	SPM-825-1

Order from Agilent

Visit us online at **www.agilent.com** at any time and search for the products you need. If we don't have an item listed, you can request a custom quote online.

Alternatively, call our experienced customer service representatives for the information you need about Agilent products and your order. Visit **www.agilent.com/chem/contactus** to find out how.

EPA Method 622

Organophosphorus pesticides

Method 622 is used to measure organophosphorus pesticides. Samples are extracted, then quantitated using GC/NPD or GC/FPD.

Recommended Method 622 Organophosphorus Pesticides Mixture

Description	Analytes and Concentration				Total Vol.	Part No.
10 analytes, in hexane	Azinphos methyl	150 µg/mL	Fensulfothion	150 µg/mL	1 x 1 mL	SPM-622A-1
	Bolstar	15 µg/mL	Fenthion	10 µg/mL		
	Coumaphos	150 µg/mL	Phorate	15 µg/mL		
	Demeton	25 µg/mL	Trichloronate	15 µg/mL		
	Disulfoton	20 µg/mL	Tokuthion	50 µg/mL		

Recommended Method 622 Organophosphorus Pesticides Mixture

Description	Analytes and Concentration				Total Vol.	Part No.
7 analytes, in hexane	Chlorpyrifos methyl	30 µg/mL	Parathion methyl	30 µg/mL	1 x 1 mL	SPM-622C-1
	Chlorpyrifos	30 µg/mL	Ronnel	30 µg/mL		
	Diazinon	60 µg/mL	Merphos	25 µg/mL		
	Ethoprop	25 µg/mL				

Recommended Method 622 Naled Solution

Description	Analyte	Total Vol.	Part No.
1 analyte, at 10 µL, in hexane	Naled	1 x 1 mL	SPM-622D-1

Recommended Standards

EPA Method 622	Part No.
Calibration standards	SPM-622A-1 SPM-622C-1 SPM-622D-1

Tips and tools

To view our entire portfolio of over 7,000 standards, all manufactured under ISO 17025 Guide 34, visit **www.agilent.com/chem/standards**

EPA Method 624

Purgeables

Method 624 is a GC/MS method for purgeables.

EPA Method 624 Kit

Description	Ampoules	Part No.
Contains 4 ampoules, 1 x 1 mL of each standard	Purgeable mixture (PMX-110-1) Chloroethyl vinyl ether soln. (HC-070-1) Surrogate std mixture (STM-290N-1) BFB solution (STS-110N-1)	PMK-624

Recommended Method 624 Purgeable Mixtures

Description	Analytes			Total Vol.	Part No. 20 µg/mL	Part No. 100 µg/mL
30 analytes, in methanol	Benzene Bromodichloromethane Bromoform Bromomethane Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane Dibromochloromethane	1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene *trans*-1,2-Dichloroethene 1,2-Dichloropropane *cis*-1,3-Dichloropropene *trans*-1,3-Dichloropropene	Ethylbenzene Methylene chloride 1,1,2,2-Tetrachloroethane Tetrachloroethene Toluene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethene Trichlorofluoromethane Vinyl chloride	1 x 1 mL	PMX-100-1	PMX-110-1

Purgeable Mixture

Description	Analytes			Total Vol.	Part No.
25 analytes, at 2,000 µg/mL, in methanol	Benzene Bromodichloromethane Bromoform Carbon tetrachloride Chlorobenzene Chloroform Dibromochloromethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene	1,4-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene *trans*-1,2-Dichloroethene 1,2-Dichloropropane *cis*-1,3-Dichloropropene *trans*-1,3-Dichloropropene Ethylbenzene	Methylene chloride 1,1,2,2-Tetrachloroethane Tetrachloroethene Toluene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethene	1 x 1 mL	PMX-160-1

Surrogate Standard Mixtures

Description	Analytes	Total Vol.	Part No. 1,000 µL	Part No. 1,500 µL	Part No. 2,000 µL	Part No. 20,000 µL
3 analytes, in methanol	Bromochloromethane 2-Bromo-1-chloropropane 1,4-Dichlorobutane	1 x 1 mL	STM-288-1	STM-289-1	STM-290N-1	STM-291-1

Surrogate Standard Mixtures

Description	Analytes	Total Vol.	Part No. 1,000 µL	Part No. 2,000 µL
3 analytes, in methanol	4-Bromofluorobenzene Fluorobenzene Pentafluorobenzene	1 x 1 mL	STM-395-1	STM-390-1

Recommended Standards

EPA Method 624	Part No.
Calibration standards	PMX-110-1 HC-070-1
Surrogate standard	STM-290N-1

EPA Method 625

Base/neutrals and acids

Method 625 is a GC/MS method for extractables.

EPA Method 625 Kit

Description	Analytes	Part No.
Contains 5 ampoules, 1 x 1 mL of each standard	B/N extractables mixture (625-MA-1) Acid extractables mixture (PHM-604-1) B/N surrogate std mixture (ISM-280N-1) Acid surrogate std mixture (ISM-290N-1) Internal std mixture (US-108N)	SVK-625A

Recommended Method 625 Base/Neutrals Extractables Mixture

Description	Analytes				Total Vol.	Part No.
41 analytes, at 20 µg/mL, in methanol/ methylene chloride	Acenaphthene Acenaphthylene Anthracene Benz[*a*]anthracene Benzo[*b*]fluoranthene Benzo[*k*]fluoranthene Benzo[*ghi*]perylene Benzo[*a*]pyrene Bis(2-chloroethyl) ether Bis(2-chloroethoxy) methane Bis(2-ethylhexyl) phthalate	Bis(2-chloroisopropyl) ether 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenz[*a,h*]anthracene Di-*n*-Butyl phthalate 1,2-Dichlorobenzene 1,3-Dichlorobenzene	1,4-Dichlorobenzene 3,3-Dichlorobenzidine Diethyl phthalate Dimethyl phthalate 2,4-Dinitrotoluene 2,6-Dinitrotoluene Di-*n*-Octyl phthalate Fluoranthene Fluorene Hexachlorobenzene	Hexachlorobutadiene Hexachloroethane Indeno[1,2,3-*cd*]pyrene Isophorone Naphthalene Nitrobenzene *N*-Nitrosodi-*n*-propylamine Phenanthrene Pyrene 1,2,4-Trichlorobenzene	1 x 1 mL	625-MA-1

Recommended Method 625 Acid Extractables Mixture

Description	Analytes			Total Vol.	Part No.
11 analytes, at 20 µg/mL, in methanol	4-Chloro-3-methylphenol 2-Chlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol	2,4-Dinitrophenol 2-Methyl-4,6-dinitrophenol 2-Nitrophenol 4-Nitrophenol	Pentachlorophenol Phenol 2,4,6-Trichlorophenol	1 x 1 mL	PHM-604-1

Internal Standard Mixtures

Description	Analytes			Total Vol.	Part No. 2,000 µg/mL	Part No. 4,000 µg/mL
6 analytes, at 20 µg/mL, in methylene chloride	Acenaphthene-d_{10} Chrysene-d_{12}	1,4-Dichlorobenzene-d_4 Naphthalene-d_8	Perylene-d_{12} Phenanthrene-d_{10}	1 x 1 mL	ISM-560-1	US-108N-1

Base/Neutrals Surrogate Mixture

Description	Analytes	Total Vol.	Part No.
3 analytes, at 1,000 µg/mL, in methylene chloride	Nitrobenzene-d_5 2-Fluorobiphenyl *p*-Terphenyl-d_{14}	1 x 1 mL	ISM-280N-1

Acids Surrogate Mixture

Description	Analytes	Total Vol.	Part No.
3 analytes, at 2,000 µg/mL, in methanol	2-Fluorophenol Phenol-d_5 2,4,6-Tribromophenol	1 x 1 mL	ISM-290N-1

Recommended Standards

EPA Method 625	Part No.
Calibration standards	625-MA-1 PHM-604-1 PPM-625B-1

EPA Method 625 high concentration calibration standards

GC/MS High Concentration Kit

Description	Solutions			Part No.
Contains 9 ampoules, 1 x 1 mL of each solution	Base/neutral mixture #1 (US-100N) Base/neutral mixture #2 (US-101N) Pesticides mixture (US-102BN)	Toxic substances mix #1 (US-103N) Toxic substances mix #2 (US-104N) Benzidines mixture (US-105N)	PAH mixture (US-106N) Phenols mixture (US-107N) Internal standards mixture (US-108N)	US-109K

Base/Neutrals Mix #1

Description	Analytes			Total Vol.	Part No.
14 analytes, at 2,000 µg/mL, in methylene chloride	Bis(2-chloroethoxy)methane Bis(2-chloroethyl) ether Bis(2-ethylhexyl) phthalate Bis(2-chloroisopropyl) ether 4-Bromophenyl phenyl ether	Butylbenzyl phthalate 4-Chlorophenyl phenyl ether Diethyl phthalate Dimethyl phthalate Di-*n*-butyl phthalate	Di-*n*-octyl phthalate *N*-Nitrosodimethylamine *N*-Nitrosodi-*n*-propylamine *N*-Nitrosodiphenylamine	1 x 1 mL	US-100N-1

Base/Neutrals Mix #2

Description	Analytes			Total Vol.	Part No.
14 analytes, at 2,000 µg/mL, in methylene chloride	Azobenzene 2-Chloronaphthalene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	2,4-Dinitrotoluene 2,6-Dinitrotoluene Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene	Hexachloroethane Isophorone Nitrobenzene 1,2,4-Trichlorobenzene	1 x 1 mL	US-101N-1

Benzidines Mixture

Description	Analytes		Total Vol.	Part No.
2 analytes, at 2,000 µg/mL, in methanol	Benzidine	3,3-Dichlorobenzidine	1 x 1 mL	US-105N-1

Toxic Substances Mix #1

Description	Analytes		Total Vol.	Part No.
4 analytes, at 2,000 µg/mL, in methylene chloride	Benzoic acid 2-Methylphenol	4-Methylphenol 2,4,5-Trichlorophenol	1 x 1 mL	US-103N-1

Toxic Substances Mix #2

Description	Analytes		Total Vol.	Part No.
8 analytes, at 2,000 µg/mL, in methylene chloride	Aniline Benzyl alcohol 4-Chloroaniline Dibenzofuran	2-Methylnaphthalene 2-Nitroaniline 3-Nitroaniline 4-Nitroaniline	1 x 1 mL	US-104N-1

Internal Standard Mixtures

Description	Analytes			Total Vol.	Part No. 2,000 µg/mL	Part No. 4,000 µg/mL
6 analytes, in methylene chloride	Acenaphthene-d_{10} Chrysene-d_{12}	1,4-Dichlorobenzene-d_4 Naphthalene-d_8	Perylene-d_{12} Phenanthrene-d_{10}	1 x 1 mL	ISM-560N-1	US-108-1

Phenols Mixture

Description	Analytes				Total Vol.	Part No.
11 analytes, at 2,000 µg/mL, in methylene chloride	4-Chloro-3-methylphenol 2-Chlorophenol 2,4-Dichlorophenol	2,4-Dimethylphenol 2,4-Dinitrophenol 2-Methyl-4,6-dinitrophenol	2-Nitrophenol 4-Nitrophenol Pentachlorophenol	Phenol 2,4,6-Trichlorophenol	1 x 1 mL	US-107N-1

Method 625 Additions Mixture

Description	Analytes				Total Vol.	Part No.
7 analytes, at 2,000 µg/mL, in methylene chloride	Acetophenone Carbazole	*n*-Decane 2,3-Dichloroaniline	*n*-Octadecane Pyridine	α-Terpineol	1 x 1 mL	US-136-1

Surrogate and internal standards for EPA Method 625

Base/Neutrals Surrogate Mixtures

Description	Analytes		Total Vol.	Part No. 1,000 µg/mL in Methylene chloride	Part No. 1,000 µg/mL in Acetone/Methylene chloride	Part No. 5,000 µg/mL in Methylene chloride
3 analytes	Nitrobenzene-d_5 2-Fluorobiphenyl	*p*-Terphenyl-d_{14}	1 x 1 mL	ISM-280N-1	ISM-281-1	ISM-216-1

Acids Surrogate Standard Mixture

Description	Analytes		Total Vol.	Part No.
3 analytes, at 2,000 µg/mL, in methanol	2-Fluorophenol Phenol-d_5	2,4,6-Tribromophenol	1 x 1 mL	ISM-290N-1

Internal Standard Mixtures

Description	Analytes		Total Vol.	Part No. 2,000 µg/mL in Methylene chloride	Part No. 2,000 µg/mL in Methylene chloride/ Benzene (1:1)	Part No. 4,000 µg/mL in Methylene chloride
6 analytes	Acenaphthene-d_{10} Chrysene-d_{12} 1,4-Dichlorobenzene-d_4	Naphthalene-d_8 Perylene-d_{12} Phenanthrene-d_{10}	1 x 1 mL	ISM-560-1	ISM-561-1	US-108N-1

GC/MS calibration and tuning standards EPA Method 625

EPA Method 625 Kit

Description	Solutions		Part No.
Contains 5 ampoules, 1 x 1 mL of each standard	DFTPP solution (47995N-1) Benzidine solution (GCS-110-1) Pentachlorophenol soln. (GCS-120-1)	Base/neutrals test mix (GCM-130-1) Acids test mixture (GCM-140-1)	GCM-100K

Extractables GC/MS Calibration Standards

Description	Standards	Total Vol.	Part No. 100 µg/mL in Methylene chloride	Part No. 1,000 µg/mL in Acetone
1 standard	Decafluorotriphenylphosphine (DFTPP)	1 x 1 mL	IST-341-1	47995N-1

Base/Neutrals Test Mixture

Description	Analytes		Total Vol.	Part No.
2 analytes, in methylene chloride	Benzidine Decafluorotriphenylphosphine	2,000 µg/mL 1,000 µg/mL	1 x 1 mL	GCM-130-1

Base/Neutrals Test Mixture

Description	Analytes		Total Vol.	Part No.
2 analytes, in methylene chloride	Benzidine Decafluorotriphenylphosphine	500 µg/mL 250 µg/mL	1 x 1 mL	GCM-151-1

Base/Neutrals Test Mixture

Description	Analytes		Total Vol.	Part No.
2 analytes, in methylene chloride	Benzidine Decafluorotriphenylphosphine	50 µg/mL 25 µg/mL	1 x 1 mL	GCM-156-1

Acids Test Mixtures

Description	Analytes	Total Vol.	Part No. 1,000 µg/mL	Part No. 250 µg/mL	Part No. 25 µg/mL
2 analytes, in methylene chloride	Pentachlorophenol Decafluorotriphenylphosphine (DFTPP)	1 x 1 mL	GCM-140-1	GCM-152-1	GCM-155-1

Extractables GC/MS Calibration Standards

Description	Standards	Total Vol.	Part No. 2,000 µg/mL	Part No. 500 µg/mL	Part No. 50 µg/mL
1 standard, in methylene chloride	Benzidine	1 x 1 mL	GCS-110-1	GCS-112-1	GCS-113-1
			Part No. 1,000 µg/mL	**Part No. 250 µg/mL**	**Part No. 25 µg/mL**
1 standard, in methylene chloride	Pentachlorophenol	1 x 1 mL	GCS-120-1	GCS-122-1	GCS-124-1

EPA Method 625 additional calibration standards

Base/Neutrals Extractables Mixture

Description	Analytes			Total Vol.	Part No.
12 analytes, at 500 µg/mL, in methylene chloride	Acenaphthylene Benzo[b]fluoranthene Bis(2-chloroethyl) ether Bis(2-ethylhexyl) phthalate	Bis(2-chloroisopropyl) ether 4-Bromophenyl phenyl ether Di-*n*-butyl phthalate 1,4-Dichlorobenzene	3,3-Dichlorobenzidine Dimethyl phthalate 2,6-Dinitrotoluene Nitrobenzene	1 x 1 mL	SVM-110-1

Base/Neutrals Extractables Mixture

Description	Analytes			Total Vol.	Part No.
15 analytes, at 500 µg/mL, in methylene chloride	Acenaphthene Anthracene Benz[*a*]anthracene Bis(2-chloroethoxy)methane Chrysene	Dibenz[*a,h*]anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene Diethyl phthalate 2,4-Dinitrotoluene	Fluorene Hexachlorobenzene Hexachlorobutadiene Naphthalene Pyrene	1 x 1 mL	SVM-111-1

Base/Neutrals Extractables Mixtures

Description	Analytes			Total Vol.	Part No. 500 µg/mL in Methylene chloride	Part No. 500 µg/mL in Methanol/Methylene chloride
11 analytes	Azobenzene Butyl benzyl phthalate 2-Chloronaphthalene Fluoranthene Hexachlorocyclopentadiene Hexachloroethane	Isophorone *N*-Nitrosodi-*n*-propylamine *N*-Nitrosodiphenylamine Phenanthrene 1,2,4-Trichlorobenzene		1 x 1 mL	SVM-112-1	XY-0122-1

Base/Neutrals Extractables Mixture

Description	Analytes			Total Vol.	Part No.
8 analytes, at 500 µg/mL, in methylene chloride	Benzidine Benzo[*k*]fluoranthene Benzo[*ghi*]perylene	Benzo[*a*]pyrene 4-Chlorophenyl phenyl ether Di-*n*-octyl phthalate	Indeno[1,2,3-*cd*]pyrene N-Nitrosodimethylamine	1 x 1 mL	SVM-113-1

Wastewater Pesticides Mixture

Description	Analytes			Total Vol.	Part No
7 analytes, at 500 µg/mL, in acetone	Aldrin 4,4´-DDD 4,4´-DDE	4,4´-DDT Dieldrin	Heptachlor Heptachlor epoxide - isomer B	1 x 1 mL	PPM-608G-1

Chlordane and Toxaphene Mixture

Description	Analytes and Concentration		Total Vol.	Part No.
2 analytes, in methanol	Chlordane Toxaphene	2,000 µg/mL 4,000 µg/mL	1 x 1 mL	PPM-608G-1

Chlordane and Toxaphene Solution

Description	Analytes and Concentration		Total Vol.	Part No.
2 analytes in methanol	Chlordane Toxaphene	20 µg/mL 200 µg/mL	1 x 1 mL	TCLP-535-1

EPA Method 632

Carbamate and urea pesticides

Method 632 is used to measure carbamate and urea pesticides. Samples are extracted, then quantitated using HPLC.

Carbamate and Urea Pesticides Mixture

Description	Analytes				Total Vol.	Part No.
19 analytes, at 100 µg/mL, in methanol	Aminocarb methomyl Barban mexacarbate Carbaryl monuron Carbofuran neburon Chlorpropham oxamyl	Diuron propham Fenuron propoxur Fluometuron siduron Linuron swep Methiocarb	Methomyl Mexacarbate Monuron Neburon Oxamyl	Propham Propoxur Siduron Swep	1 x 1 mL	PPM-632A-1

EPA Method 632.1

Carbamate and amide pesticides

Method 632.1 is used to measure carbamate and amide pesticides. Samples are extracted, then quantitated using HPLC.

Carbamate and Amide Pesticides Mixture

Description	Analytes	Total Vol.	Part No.
2 analytes, at 100 µg/mL, in acetonitrile/acetone (9:1)	Napropamide Propanil	1 x 1 mL	PPM-632B-1

EPA Method 633

Organonitrogen pesticides

Method 633 is used to measure organonitrogen pesticides. Samples are extracted, then quantitated using a GC/NPD.

Organonitrogen Pesticides Mixture

Description	Analytes		Total Vol.	Part No.
7 analytes, at 100 µg/mL, in acetone	Bromacil Deet Hexazinone Metribuzin	Terbacil Triadimefon Tricyclazole	1 x 1 mL	NPM-633-1

EPA Non-Conventional Pesticides Method standards

EPA Method	Compound	Concentration	Total Vol.	Part No.
629	Cyanazine	1,000 µg/mL, in methanol	1 x 1 mL	EPA-1165-1
630, 630.1	Carbon disulfide	5,000 µg/mL, in methanol	1 x 1 mL	EPA-1012-1
	Ziram	Neat material	1 x 100 mg	PST-1750-1
631	Carbendazim	100 µg/mL, in methanol	1 x 1 mL	PST-1285M100A01
	Rotenone	1,000 µg/mL, in methanol	1 x 1 mL	EPA-1168-1
636	Bensulide	1,000 µg/mL, in methanol	1 x 1 mL	EPA-1169-1
638	Oryzalin	1,000 µg/mL, in methanol	1 x 1 mL	EPA-1170-1
639	Bendiocarb	1,000 µg/mL, in methanol	1 x 1 mL	EPA-1171-1
641	Thiabendazole	1,000 µg/mL, in methanol	1 x 1 mL	EPA-1173-1
643	Bentazon	1,000 µg/mL, in methanol	1 x 1 mL	EPA-1174-1
644	Picloram	1,000 µg/mL, in methanol	1 x 1 mL	EPA-1175-1

Tips and tools

To view our entire portfolio of over 7,000 standards, all manufactured under ISO 9001, ISO 17025, and Guide 34, visit **www.agilent.com/chem/standards**

EPA Method 680

PCBs by GC/MS

Method 680 is used to measure PCBs and select pesticides in water, oil, or sediment. Samples are extracted, then quantitated using GC/MS.

EPA Method 680 Kit

Description	Analytes		Part No.
Contains 4 ampoules, 1 x 1 mL of each solution	Concentration mixture (CB-681MN-1) Retention time mixture (CB-682MN-1)	Chrysene-d_{12} solution (ATS-120-1) Phenanthrene-d_{10} solution (IST-230-1)	CBK-680A

Concentration Calibration Standard Mixture

Description	Analytes/Congener and Concentration		Total Vol.	Part No.
9 analytes, in hexane/toulene (1:1)	2-Chlorobiphenyl (BZ #1) 2,3-Dichlorobiphenyl (BZ #5) 2,4,5-Trichlorobiphenyl (BZ #29) 2,2´,4,6-Tetrachlorobiphenyl (BZ #50) 2,2´,3,4,5´-Pentachlorobiphenyl (BZ #87) 2,2´,4,4´,5,6´-Hexachlorobiphenyl (BZ #154) 2,2´,3,4´,5,6,6´-Heptachlorobiphenyl (BZ #188) 2,2´,3,3´,4,5´,6,6´-Octachlorobiphenyl (BZ #200) Decachlorobiphenyl (BZ #209)	100 µg/mL 100 µg/mL 100 µg/mL 200 µg/mL 200 µg/mL 200 µg/mL 300 µg/mL 300 µg/mL 500 µg/mL	1 x 1 mL	CB-680-1

Internal and Surrogate Standards

Description	Standards	Total Vol.	Part No. 2,000 µg/mL in Methylene chloride	Part No. 250 µg/mL in Toluene
1 standard	Chrysene-d_{12}	1 x 1 mL	ATS-120-1	ATS-122-1
1 standard	Phenanthrene-d_{10}		**Part No. 1,000 µg/mL in Methylene chloride**	
			IST-230-1	

Internal Standard Mixtures

Description	Analytes	Total Vol.	Part No. 40 µg/mL in Hexane	Part No. 75 µg/mL in Hexane/Toluene (1:1)	Part No. 750 µg/mL in Hexane/Methylene chloride
2 analytes	Chrysene-d_{12} Phenanthrene-d_{10}	1 x 1 mL	ISM-565-1	ISM-566-1	ISM-567-1

Concentration Calibration Standard Mixture

Description	Analytes/Congener and Concentration		Total Vol.	Part No.
9 analytes, in hexane	2-Chlorobiphenyl (BZ #1) 2,3-Dichlorobiphenyl (BZ #5) 2,4,5-Trichlorobiphenyl (BZ #29) 2,2',4,6-Tetrachlorobiphenyl (BZ #50) 2,2',3,4,5'-Pentachlorobiphenyl (BZ #87) 2,2',4,4',5,6'-Hexachlorobiphenyl (BZ #154) 2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ #188) 2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ #200) Decachlorobiphenyl (BZ #209)	50 µg/mL 50 µg/mL 50 µg/mL 100 µg/mL 100 µg/mL 100 µg/mL 150 µg/mL 150 µg/mL 250 µg/mL	1 x 1 mL	CB-681MN-1

Concentration Calibration Standard Mixture

Description	Analytes and Concentration		Total Vol.	Part No.
9 analytes, at 500 µg/mL, in hexane/toluene (1:1)	2-Chlorobiphenyl (BZ #1)	50 µg/mL	1 x 1 mL	CB-684-1
	2,3-Dichlorobiphenyl (BZ #5)	50 µg/mL		
	2,4,5-Trichlorobiphenyl (BZ #29)	50 µg/mL		
	2,2′,4,6-Tetrachlorobiphenyl (BZ #50)	100 µg/mL		
	2,2′,3,4,5′-Pentachlorobiphenyl (BZ #87)	100 µg/mL		
	2,2′,4,4′,5,6′-Hexachlorobiphenyl (BZ #154)	100 µg/mL		
	2,2′,3,4′,5,6,6′-Heptachlorobiphenyl (BZ #188)	150 µg/mL		
	2,2′,3,3′,4,5′,6,6′-Octachlorobiphenyl (BZ #200)	150 µg/mL		
	Decachlorobiphenyl (BZ #209)	250 µg/mL		

Retention Time Calibration Standard Mixture

Description	Analytes/Congener and Concentration		Total Vol.	Part No.
3 analytes, in hexane	3,3′,4,4′-Tetrachlorobiphenyl (BZ # 77)	100 µg/mL	1 x 1 mL	CB-682MN-1
	2,2′,4,6,6′-Pentachlorobiphenyl (BZ # 104)	100 µg/mL		
	2,2′,3,3′,4,5,5′,6,6′-Nonachlorobiphenyl (BZ # 208)	200 µg/mL		

Retention Time Calibration Standard Mixture

Description	Analytes/Congener and Concentration	Total Vol.	Part No.
4 analytes, at 2.5 µg/mL, in hexane	3,3′,4,4′-Tetrachlorobiphenyl (BZ # 77)	1 x 1 mL	CB-685-1
	2,2′,4,6,6′-Pentachlorobiphenyl (BZ # 104)		
	2,3,3´,4,4´,5,5´-Heptachlorobiphenyl (BZ #189)		
	2,2´,3,3´,5,5´,6,6´-Octachlorobiphenyl (BZ #202)		

Tips and tools

Find more EPA Method standards online at **www.agilent.com/chem/standards**

EPA Method 1311

Toxicity Characteristic Leaching Procedure (TCLP)

The TCLP is designed to determine the mobility of both organic and inorganic analytes present in liquid, solid, and multiphasic wastes.

TCLP Volatiles Mixture

Description	Analytes	Total Vol.	Part No.
11 analytes, at 1,000 µg/mL, in methanol	Benzene 2-Butanone (MEK) Carbon tetrachloride Chlorobenzene Chloroform 1,4-Dichlorobenzene 1,2-Dichloroethane 1,1-Dichloroethene Tetrachloroethene Trichloroethene Vinyl chloride	1 x 1 mL	TCLP-500-1

TCLP Herbicides Spiking Mixtures

Description	Analytes	Total Vol.	Part No. Herbicide Acids Mixture	Part No. Methylated Herbicide Mixture
2 analytes, at 2,000 µg/mL, in methanol	2,4-D 2,4,5-TP (Silvex)	1 x 1 mL	TCPL-540-1	TCLP-540M-1

TCLP Base/Neutrals Mixture

Description	Analytes	Total Vol.	Part No.
7 analytes, at 1,000 µg/mL, in acetone	2,4-Dinitrotoluene Hexachlorobenzene Hexachlorobutadiene 1,4-Dichlorobenzene Hexachloroethane Nitrobenzene Pyridine	1 x 1 mL	TCLP-511N-1

TCLP Base/Neutrals Mixture

Description	Analytes	Total Vol.	Part No.
6 analytes, at 1,000 µg/mL, in acetone	*o*-Cresol *m*-Cresol *p*-Cresol Pentachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	1 x 1 mL	TCLP-520N-1

TCLP Pesticides Mixture

Description	Analytes	Total Vol.	Part No.
5 analytes, at 100 µg/mL, in methanol	γ-BHC (lindane) Heptachlor Heptachlor epoxide (B) Endrin Methoxychlor (1,000 µg/mL)	1 x 1 mL	TCLP-530BN-1

TCLP Semi-Volatiles Spiking Mix

Description	Analytes	Total Vol.	Part No.
13 analytes, at 2,000 µg/mL, in methylene chloride	*o*-Cresol *m*-Cresol *p*-Cresol 1,4-Dichlorobenzene 2,4-Dinitrotoluene Hexachlorobenzene Hexachlorobutadiene Hexachloroethane Nitrobenzene Pentachlorophenol Pyridine 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	1 x 1 mL	TCLP-512-1

TCLP Pesticides Spiking Mixture

Description	Analytes	Total Vol.	Part No.
7 analytes, at 2,000 µg/mL, in methanol	Endrin Heptachlor Heptachlor epoxide (B) ϒ-BHC (lindane) Methoxychlor Toxaphene (4000 µg/mL)	1 x 1 mL	TCLP-531-1

TCLP Pesticides Spiking Mixture

Description	Analytes	Total Vol.	Part No.
5 analytes, at 2,000 µg/mL, in methanol	Endrin Heptachlor Heptachlor epoxide (B) ϒ-BHC (lindane) Methoxychlor	1 x 1 mL	TCLP-532-1

TCLP Pesticides Spiking Mixture

Description	Analytes		Total Vol.	Part No.
2 analytes, in methanol	Chlordane Toxaphene	2,000 µg/mL 4,000 µg/mL	1 x 1 mL	TCLP-533-1

Recommended Standards

EPA Method 1311	Part No.
Calibration standards	TCLP-500-1 TCLP-511N-1 TCLP-520N-1 TCLP-530BN-1 TCLP-540-1

EPA Method 1664, 1664A

Oil and grease, and total petroleum hydrocarbons

Method 1664 is a gravimetric method allowing determination of *n*-hexane extractable material (HEM) in surface and saline waters, and in industrial and domestic aqueous wastes. Extractable materials that may be determined are relatively non-volatile hydrocarbons, vegetable oils, animal fats, waxes, soaps, greases, and related materials.

EPA Method 1664, 1664A Precision, Accuracy, and Recovery Standard

Description	Analytes	Total Vol.	Part No.
2 analytes, at 4,000 µL, in acetone	*n*-Hexadecane Stearic acid	1 x 1 mL	RGO-101X

EPA Method 1664, 1664A Precision, Accuracy, and Recovery Standard

Description	Analytes	Total Vol.	Part No.
2 analytes, at 2,000 µL, in acetone	*n*-Hexadecane Stearic acid	1 x 1 mL	RGO-102X

Technical note

These standards often crystallize on standing. Always check for crystals before use. For best results, always equilibrate the standards in an ultrasonic bath to ensure complete dissolution.

Technical support at work for you



Have a hardware, software, application, instrument repair, or troubleshooting question? Agilent's technical experts are available to answer your questions. With years of laboratory experience, our technical support specialists can provide in-depth knowledge and experience.

For questions about supplies found in this catalog, contact your local Agilent office or authorized Agilent distributor. Or visit **www.agilent.com/chem/techsupport**

Agilent CrossLab services

Maximize uptime with end-to-end support

Trust Agilent CrossLab service experts to deliver valuable insights and keep your instruments running. Our industry-leading services include Technology Refresh, application consulting, repairs, preventive maintenance, and more.
Ask us how we can support your laboratory today.

www.agilent.com/crosslab

Need more information?

Visit **www.agilent.com/chem/contactus** to:

- Locate your nearest Agilent office or distributor for expert technical support.
- Get fast sales and product assistance by phone. Simply use the scroll-down menu to select your country.
- Receive email assistance using our convenient online forms.

Contact us:
www.agilent.com/chem/contactus

Buy online:
www.agilent.com/chem/store

Get social with Agilent:
www.agilent.com/chem/social

Explore our full range of catalogs:
www.agilent.com/chem/catalog

This information is subject to change without notice.

© Agilent Technologies, Inc. 2019
Published in the USA, March 1, 2019
5994-0617EN

Agilent
Trusted Answers