

A New Standard of Confidence

phenova[®]
Certified Reference Materials

Calibration, Internal, & Surrogate Standards for Environmental Analysis

- Meets ISO/IEC 17025 & ISO Guide 34 Criteria
- Stay in Calibration Longer
- Lot-to-Lot Consistency



 **phenomenex**[®]
...breaking with traditionSM

US

Phenova CRMs are manufactured by Phenova, Inc. (Golden, Colorado, USA), a Phenomenex Company, which is accredited to ISO Guide 34:2009 and ISO/IEC 17025 :2005.

Keeping You in Calibration

Phenomenex® is the exclusive distributor of ISO/IEC 17025 & ISO Guide 34 compliant Phenova® Certified Reference Materials (CRMs), which are manufactured and shipped by Phenova, Inc., an experienced environmental proficiency testing provider.

Using the same strict criteria to manufacture proficiency testing standards that have allowed environmental laboratories to maintain or gain their accreditation, Phenova has developed a line of CRMs that challenge competitive products by:

- Reducing the frequency of your initial calibrations
- Producing the lowest possible uncertainties
- Maintaining lot-to-lot consistency
- Minimizing trending

This new standard in CRM quality, convenience, & reliability will help you to stay in calibration longer, resulting in a higher sample throughput analysis, shorter turnaround times, and most importantly, happier customers.

Compound Classes Available

- Volatiles
- Semi-Volatiles
- Pesticides
- Herbicides
- Polychlorinated Biphenyls (PCBs)
- Fuels

Who Needs to Use Certified Reference Materials?

All environmental labs accredited to ISO/IEC 17025 must use CRMs. Even if your lab does not have this accreditation it still benefits from having a high standard, quality product.



A New Standard of CRMs

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High Quality, High Confidence

Phenova® CRMs meet the strict criteria defined under ISO/IEC 17025 and ISO Guide 34. These stringent international guidelines produce extremely accurate and consistent CRMs resulting in improved data quality for your laboratory.

- Raw materials have the highest purity and are characterized using qualified methods and instruments
- All manufacturing labs are ISO-accredited under documented procedures



Chemical Testing Laboratory
Certificate No. 2427.03



Reference Material Producer
Certificate No. 2427.02

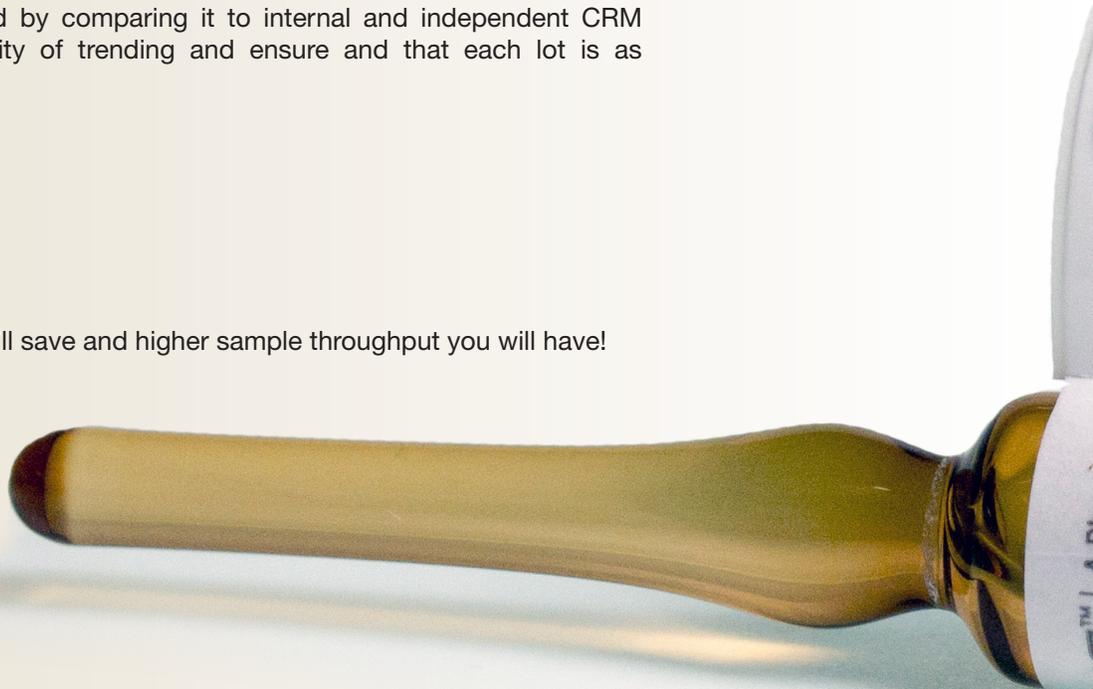
Trendy is Not a Good Word for CRMs

Each Phenova CRM lot is qualified by comparing it to internal and independent CRM materials to eliminate the possibility of trending and ensure that each lot is as consistent as the next.

What consistent lots mean for you:

- Fewer initial calibration events
- Staying in calibration longer
- Analyzing more client samples

Think of all the time and money you'll save and higher sample throughput you will have!



Inventory You Can Count On

At any point in time there will be multiple lots of each Phenova CRM available and ready to ship at your call.

Dependable and Extensive:

- Inventory is managed with a unique bar-code for every standard and lot
- Manufacturing cycles are forecasted and scheduled with an industry leading Enterprise Resource Planning (ERP) system
- 2-4 lots of each Phenova CRM available



Smart and Simple Packaging

Phenova CRM packaging provides both a form and function, for facilitating ease of handling and storage.

Storage and Organization

- Up to 5 ampoules fit horizontally in a flat-top box allowing you the freedom to easily stack in a vertical square space, and maximize your storage availability.

Safe-Guard

- Reduction of phthalate contamination by using deactivated glass ampoules
- Ampoules are packaged with a styrofoam fitting to avoid breakage during handling

That's Pretty Useful

- Write important notes right on the box.
- Each ampoule comes with 2 additional labels that you can place on paperwork, auto-sampler and transfer vials, or anywhere you see fit.

Safety Comes First

- Every ampoule has its own hazardous communication flag that can be cross referenced to the Hazardous Communication Guide included with the shipment



Try Phenova CRMs for Free!

Phenomenex® offers recommended alternatives* with Phenova CRMs to those of your current supplier. Verify the performance of Phenova CRMs at no cost to you with a free sample and get started with the most reliable and convenient CRM provider.

**Restrictions apply

Easily Find Your Alternative

Find recommended Phenova CRM alternatives to your current supplier on-line using our search engine or by downloading our CRM Cross Reference Guide at:

www.phenomenex.com/Standards



Disclaimer

*Recommended Alternative - This indicates an alternative CRM which will contain similar analytes and concentration.

**Limited 3 free samples per customer.

Streamline your Product Search

Quickly Find and Order Products Online

Search products by:

- EPA method number
- CAS number
- Part number
- Product name
- Component class
- Standard type
- Current supplier part number
- CID number

Find your products at:

www.phenomenex.com/Standards



Access Product Documentation & Information

- Safety Data Sheet
- Certificate of Analysis
- Compound List
- Chromatogram



Stay Organized with My Dashboard

- Access your promotions and quotations
- View your previous orders (and quickly re-order)
- Find saved applications and documents
- Save wish-list products in your Virtual Stockroom

Personalized Technical Support

The Technical Support Team at Phenomenex® has dedicated personal consultants for each customer. They will gladly support all of your analytical needs from CRMs to GC/MS and LC/MS/MS in addition to providing a wide scope of tips for:

- Method improvement and development
- Finding the right reference standard
- Column selection guidance
- Sample preparation

Email us at:

PhenovaCRM@phenomenex.com

Access Environmental Technical Resources

Edge Newsletter



On-Demand Webinars



Applications



Technical Notes



Product Resources



For more information visit:

www.phenomenex.com/Environmental

Ordering Information

Calibration/Internal/Surrogate Standards

Volatiles

Part Number	Product Name	Description	Calibration Standards	Internal Standards	Surrogate Standards
ALO-101200	502.2 Calibration Standard	2000 ug/mL in P&T Methanol	✓		
ALO-101201	502.2 Calibration Standard	200 ug/mL in P&T Methanol	✓		
ALO-101202	8260 IX Additions Mix	2000 ug/mL in P&T Methanol	✓		
ALO-101203	BTEX Standard	2000 ug/mL in P&T Methanol	✓		
ALO-101204	BTEX plus MTBE Standard	2000 ug/mL in P&T Methanol	✓		
ALO-101205	BTEX plus MTBE Standard	200 ug/mL in P&T Methanol	✓		
ALO-101206	VOA Gases Standard	2000 ug/mL in P&T Methanol	✓		
ALO-101207	VOA Gases Standard	200 ug/mL in P&T Methanol	✓		
ALO-101208	California Oxygenates Standard	2000 ug/mL in P&T Methanol	✓		
ALO-101209	501 Trihalomethanes Standard	2000 ug/mL in P&T Methanol	✓		
ALO-101210	501 Trihalomethanes Standard	200 ug/mL in P&T Methanol	✓		
ALO-101211	Ketones Standard	2000 ug/mL in P&T MeOH/H ₂ O (90:10)	✓		
ALO-101212	Ketones Standard	5000 ug/mL in P&T MeOH/H ₂ O (90:10)	✓		
ALO-101219	504.1 Calibration Standard	200 ug/mL in P&T Methanol	✓		
ALO-101227	2-Chloroethyl vinyl ether Standard	2000 ug/mL in P&T Methanol	✓		
ALO-101228	Vinyl acetate Standard **	2000 ug/mL in Water	✓		
ALO-101213	8260 Internal Standard Mix 1	2500 ug/mL in P&T Methanol		✓	
ALO-101215	8260 Internal Standard Mix 2	2500 ug/mL in P&T Methanol		✓	
ALO-101217	524 Internal Standard Mix 1	2000 ug/mL in P&T Methanol		✓	
ALO-101221	502.2 Internal Standard Mix	1000 ug/mL in P&T Methanol		✓	
ALO-101229	Fluorobenzene Standard	2000 ug/mL in P&T Methanol		✓	✓
ALO-101226	4-Bromofluorobenzene Standard	1000 ug/mL in P&T Methanol		✓	✓
ALO-101231	4-Bromofluorobenzene Standard	2000 ug/mL in P&T Methanol	✓	✓	✓
ALO-101214	8260 Surrogate Standard 1	2500 ug/mL in P&T Methanol			✓
ALO-101216	8260 Surrogate Standard 2	2500 ug/mL in P&T Methanol			✓
ALO-101218	524 Surrogate Standard 2	2000 ug/mL in P&T Methanol			✓
ALO-101220	524 Surrogate Standard 1	2000 ug/mL in P&T Methanol			✓
ALO-101225	1-Chloro-2-fluorobenzene Standard	1000 ug/mL in P&T Methanol		✓	✓



Free sample*

Verify the quality and performance of Phenova® CRMs for free. Simply try before you buy.

Semi-Volatiles (BNAs and PAHs)

Part Number	Product Name	Description	Calibration Standards	Internal Standards	Surrogate Standards
ALO-101232	8270 Calibration Standard	1000 ug/mL in Methylene Chloride	✓		
ALO-101234	8270 Phenols Standard	2000 ug/mL in Methylene Chloride	✓		
ALO-101235	Appendix IX Mix 1	2000 ug/mL in Methylene Chloride	✓		
ALO-101237	Appendix IX Mix 2	2000 ug/mL in Methylene Chloride	✓		
ALO-101243	8270 Benzidines Standard	2000 ug/mL in Methylene Chloride	✓		
ALO-101244	Benzidines Standard	2000 ug/mL in Methylene Chloride	✓		
ALO-101245	N-Nitrosodiphenylamine Standard	1000 ug/mL in Methylene Chloride	✓		
ALO-101246	Benzoic Acid Standard	2000 ug/mL in Methylene Chloride	✓		
ALO-101233	PAH Plus Methylnaphthalenes	2000 ug/mL in Methylene Chloride	✓		
ALO-101236	PAH Standard	2000 ug/mL in Methylene Chloride	✓		
ALO-101238	SV Internal Standard Mix 1	4000 ug/mL in Methylene Chloride		✓	
ALO-101239	SV B/N Surrogate Mix 1	2000 ug/mL in Methylene Chloride			✓
ALO-101240	SV B/N Surrogate Mix	5000 ug/mL in Methylene Chloride			✓
ALO-101241	SV Acids Surrogate Mix 1	2000 ug/mL in Methanol			✓
ALO-101242	SV Acids Surrogate Mix	5000 ug/mL in Methanol			✓
ALO-101251	SV BNA Surrogate Mix	2000 ug/mL in Methylene Chloride			✓
ALO-101252	SV BNA Surrogate Mix	4000 ug/mL in Methylene Chloride			✓
ALO-101291	GC/MS Tuning Mix	1000 ug/mL in Methylene Chloride	✓		

Available in the
USA and Canada.

Soon to arrive in regions around
the globe!

Disclaimer

*Limited 3 free samples per customer.

**Due to the instability of Vinyl Acetate, this standard is manufactured and shipped on demand and offered as an Analytical Reference Standard under Phenova's ISO Guide 34 Reference Material Provider accreditation procedures.

Calibration/Internal/Surrogate Standards

Pesticides and Herbicides

Part Number	Product Name	Description	Calibration Standards	Internal Standards	Surrogate Standards
ALO-101253	8081 Chlorinated Pesticides	1000 ug/mL in Hexane/Toluene	✓		
ALO-101254	Chlorinated Pesticides Standard	2000 ug/mL in Hexane/Toluene	✓		
ALO-101258	Toxaphene	2000 ug/mL in Methanol	✓		
ALO-101260	Technical Chlordane	1000 ug/mL in Methanol	✓		
ALO-101255	8141 OP Pesticides	200 ug/mL in Hexane/Acetone (90:10)	✓		
ALO-101256	8270 OP Pesticides Mix	2000 ug/mL in Methylene Chloride	✓		
ALO-101290	Pentachloronitrobenzene	100 ug/mL in Ethyl Acetate		✓	
ALO-101259	4,4'-Dibromobiphenyl	500 ug/mL in Ethyl Acetate			✓
ALO-101267	Pentachloronitrobenzene	5000 ug/mL in Acetone		✓	
ALO-101268	1-Bromo-2-nitrobenzene	5000 ug/mL in Acetone		✓	
ALO-101269	1-Bromo-2-nitrobenzene	1000 ug/mL in Acetone		✓	
ALO-101272	4-Chloro-3-Nitrobenzotrifluoride	1000 ug/mL in Acetone		✓	✓
ALO-101257	Pesticide Surrogate Mix	500 ug/mL in Acetone			✓
ALO-101263	2,4,5,6-Tetrachloro-m-xylene	200 ug/mL in Acetone		✓	✓
ALO-101274	Decacholorobiphenyl Standard	200 ug/mL in Acetone		✓	✓
ALO-101288	Chlorinated Acid Herbicides	100 ug/mL in Acetonitrile	✓		
ALO-101289	MCP P & MCPA	20000 ug/mL in Acetonitrile	✓		
ALO-101265	Simazine	1000 ug/mL in Acetone	✓		
ALO-101271	Atrazine	1000 ug/mL in Acetone	✓		
ALO-101266	Triazine Herbicides Mix	200 ug/mL in Acetone	✓		
ALO-101270	4,4'-Dibromooctofluorobiphenyl	250 ug/mL in Hexane		✓	
ALO-101261	2,4-Dichlorophenylacetic Acid	1000 ug/mL in Acetone			✓



Phenova CRMs are guaranteed to provide lot-to-lot consistency. If your Phenova CRMS do not provide you with consistent performance, send in your comparative data within 45 days for a full refund.

Polychlorinated Biphenyls (PCBs)

Part Number	Product Name	Description	Calibration Standards	Internal Standards	Surrogate Standards
ALO-101273	Aroclor 1016/1260 Standard	100 ug/mL in Hexane	✓		
ALO-101275	Aroclor 1016 Standard	100 ug/mL in Hexane	✓		
ALO-101276	Aroclor 1221 Standard	100 ug/mL in Hexane	✓		
ALO-101277	Aroclor 1232 Standard	100 ug/mL in Hexane	✓		
ALO-101278	Aroclor 1242 Standard	100 ug/mL in Hexane	✓		
ALO-101279	Aroclor 1248 Standard	100 ug/mL in Hexane	✓		
ALO-101280	Aroclor 1254 Standard	100 ug/mL in Hexane	✓		
ALO-101281	Aroclor 1260 Standard	100 ug/mL in Hexane	✓		
ALO-101282	Aroclor 1262 Standard	100 ug/mL in Hexane	✓		
ALO-101283	Aroclor 1268 Standard	100 ug/mL in Hexane	✓		
ALO-101257	Pesticide Surrogate Mix	500 ug/mL in Acetone			✓
ALO-101263	2,4,5,6-Tetrachloro-m-xylene	200 ug/mL in Acetone		✓	✓
ALO-101274	Decacholorobiphenyl Standard	200 ug/mL in Acetone		✓	✓

Fuels (DRO and GRO)

Part Number	Product Name	Description	Calibration Standards	Internal Standards	Surrogate Standards
ALO-101284	Unleaded Gasoline Composite	5000 ug/mL in P&T Methanol	✓		
ALO-101285	Unleaded Gasoline Composite	50000 ug/mL in P&T Methanol	✓		
ALO-101230	1-Chloro-4-fluorobenzene Standard	2000 ug/mL in P&T Methanol		✓	
ALO-101226	4-Bromofluorobenzene Standard	1000 ug/mL in P&T Methanol		✓	✓
ALO-101231	4-Bromofluorobenzene Standard	2000 ug/mL in P&T Methanol		✓	✓
ALO-101286	Diesel Fuel # 2 Composite	5000 ug/mL in Methylene Chloride	✓		
ALO-101287	Diesel Fuel # 2 Composite	50000 ug/mL in Methylene Chloride	✓		
ALO-101247	1-Chlorooctadecane	1000 ug/mL in Methylene Chloride		✓	✓
ALO-101248	o-Terphenyl Standard	10000 ug/mL in Methylene Chloride		✓	✓
ALO-101249	o-Terphenyl Standard	2000 ug/mL in Methylene Chloride		✓	✓
ALO-101250	2-Fluorobiphenyl	1000 ug/mL in Methylene Chloride			✓



Didn't find what you're looking for?

Call your personal technical consultant or email us at:

PhenovaCRM@phenomenex.com
and see how we can help.

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Certified Reference Materials

Calibration, Surrogate, & Internal Standards for Environmental Analysis

Australia

t: 02-9428-6444
f: 02-9428-6445
auinfo@phenomenex.com

Austria

t: 01-319-1301
f: 01-319-1300
anfrage@phenomenex.com

Belgium

t: 02 503 4015 (French)
t: 02 511 8666 (Dutch)
f: +31 (0)30-2383749
beinfo@phenomenex.com

Canada

t: (800) 543-3681
f: (310) 328-7768
info@phenomenex.com

Denmark

t: 4824 8048
f: +45 4810 6265
nordicinfo@phenomenex.com

Finland

t: 09 4789 0063
f: +45 4810 6265
nordicinfo@phenomenex.com

France

t: 01 30 09 21 10
f: 01 30 09 21 11
franceinfo@phenomenex.com

Germany

t: 06021-58830-0
f: 06021-58830-11
anfrage@phenomenex.com

India

t: 040-3012 2400
f: 040-3012 2411
indiainfo@phenomenex.com

Ireland

t: 01 247 5405
f: +44 1625-501796
eireinfo@phenomenex.com

Italy

t: 051 6327511
f: 051 6327555
italiainfo@phenomenex.com

Luxembourg

t: +31 (0)30-2418700
f: +31 (0)30-2383749
nlinfo@phenomenex.com

Mexico

t: 001-800-844-5226
f: 001-310-328-7768
tecnicomx@phenomenex.com

The Netherlands

t: 030-2418700
f: 030-2383749
nlinfo@phenomenex.com

New Zealand

t: 09-4780951
f: 09-4780952
nzinfo@phenomenex.com

Norway

t: 810 02 005
f: +45 4810 6265
nordicinfo@phenomenex.com

Puerto Rico

t: (800) 541-HPLC
f: (310) 328-7768
info@phenomenex.com

Sweden

t: 08 611 6950
f: +45 4810 6265
nordicinfo@phenomenex.com

United Kingdom

t: 01625-501367
f: 01625-501796
ukinfo@phenomenex.com

United States

t: (310) 212-0555
f: (310) 328-7768
info@phenomenex.com

All other countries: Corporate Office USA

t: (310) 212-0555
f: (310) 328-7768
info@phenomenex.com



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Phenomenex products are available worldwide. For the distributor in your country, contact Phenomenex USA, International Department at international@phenomenex.com

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