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Quality Assurance Materials Bank: Analytical Reference Standards

Sixth Edition: January 1987

U.S. Environmental Protection Agency
Environmental Monitoring Systems Laboratory
Quality Assurance Division
Las Vegas, NV 89114

Quality Assurance Materials Bank: Analytical Reference Standards

Sixth Edition: January 1987

(This listing supercedes all previous editions.)

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Environmental Monitoring Systems Laboratory
Quality Assurance Division
Las Vegas, Nevada 89114**

PREFACE

The Quality Assurance Materials Bank (QAMB) represents only one of several quality assurance programs included in the U.S. EPA Quality Assurance Reference Materials (QARM) Project. These programs are listed below followed by a description of those laboratories eligible to receive associated Agency support services.

Inquiries as to eligibility, description of services available, etc., should be directed to:

Edward J. Kantor, Project Officer
Quality Assurance Materials Bank
Quality Assurance Division
Environmental Monitoring Systems Laboratory
P.O. Box 15027
Las Vegas, NV 89114
(702) 798-2690
(FTS) 545-2690

Quality Assurance Materials Bank

- | | |
|---|--|
| ● CERCLA Organics Contract Laboratory Program | EPA, EPA Regional Laboratories,
EPA-CLP Contractors |
| ● CERCLA Inorganics Contract Laboratory Program | EPA, EPA Regional Laboratories,
EPA-CLP Contractors |
| ● CERCLA National Dioxin Monitoring Program | EPA, EPA Regional Laboratories,
EPA-CLP Contractors |
| ● RCRA Hazardous Waste Monitoring Program | EPA, EPA Regional Laboratories,
EPA-RCRA Laboratories |

Pesticides and Industrial Chemicals Repository

- | | |
|--|---|
| ● EPA Pesticides Program | All monitoring and research
laboratories worldwide |
| ● EPA Industrial Chemicals Program | All monitoring and research
laboratories worldwide |
| ● Federal Supplemental Program | U.S. Government and
Government Contractors |
| ● Experimental Chemicals Program | U.S. Government and
Government Contractors |
| ● National Pesticides Hazard
Assessment Program | U.S. Government and NPHAP
Laboratories |

Toxic and Hazardous Materials Repository

Quality Assurance Branch
Environmental Monitoring & Support Laboratory
Cincinnati, OH 45268
(513) 684-7325
(FTS) 684-7325

All monitoring and research
laboratories worldwide

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B. Organics Protocol Standards (Contract Laboratory Program)	
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INTRODUCTION

This publication contains listings of all those reference materials currently available in solution through the Quality Assurance Materials Bank (QAMB)/Environmental Monitoring Systems Laboratory-Las Vegas (EMSL-LV).

This sixth edition of the QAMB Index supercedes the October 1985 edition and is formatted as follows:

- Section 1 - Single Component Standards
QAMB/EMSL-LV
- Section 2 - Multicomponent Standards
QAMB/EMSL-LV
- Section 3 - Single Component TCDD Standards
QAMB/EMSL-LV
- Section 4 - Multicomponent TCDD Standards
QAMB/EMSL-LV
- Section 5 - Single Component Standards
Toxic and Hazardous Materials Repository (THMR) - Environmental Monitoring
Support Laboratory - Cincinnati, OH (EMSL-CI)
- Appendices - Target Compound List (TCL) - CERCLA Contract Laboratory Program
Organics Protocol Standards
Alternate Sources for TCL Materials

REQUESTS FOR REFERENCE MATERIALS

Due to the steadily increasing number of requests received for reference materials, all laboratories should attempt to identify their needs on a regular basis and submit routine requests (on the appropriate Request for Reference Standards Form) such that a sufficient supply of standards can be maintained. While emergency requests for standards will, of course, be accepted and processed with as rapid a turnaround time as possible, such requests should be limited to legitimate emergency situations. It is mandatory that requests be signed by an official of the requesting laboratory and dated accordingly. Requests received without proper authorization will not be acknowledged.

Emergency requests should be submitted through the QAMB Project Officer, Edward J. Kantor, EMSL-LV, at the following telephone number: (FTS) 545-2690 or (commercial) 702-798-2690.

REQUEST FORMS

Request forms are included with each shipment of standards. These forms or good photocopies thereof should always be used when requesting reference materials and should be filled out in BLACK INK. Each request should include the full name of the requestor and COMPLETE facility mailing address. An appropriate telephone number should be included if possible. Also, please indicate the five-digit "Laboratory Code Number" that has been assigned to your facility in all communications. Use of this number substantially expedites the processing of requests. Notification of any address, personnel, or organizational changes should be made as soon as possible.

Request forms should be mailed to the following address:

U.S. Environmental Protection Agency
Quality Assurance Materials Bank
c/o Northrop Services, Inc. – Environmental Sciences
P.O. Box 12313, 2 Triangle Drive
Research Triangle Park, NC 27709
USA

Requests shipped by air express service, e.g., Federal Express, should also be sent to this address.

ACKNOWLEDGMENT CARDS

Each dispatched parcel contains a self-addressed acknowledgment card. Since the return of this card is the only method to confirm that a shipment has reached its proper destination, it is requested that all cards be completed and returned promptly. The cards contain space for comments as well. As with requests, acknowledgments should always be signed and dated, as appropriate.

SHIPMENTS

Due to the excessive costs involved in preparation of certain reference standards, and therefore, their limited availability, the number of standards provided in response to particular requests may be reduced in order to optimize availability. Furthermore, requests for standards from depleted batches will be honored, but with standards from more recently prepared lots. When no exact replacement is available, the closest alternate standard will be shipped.

If you wish to have reference materials shipped to you via Federal Express, please include your Federal Express account number on the request form.

SECTION 1

SINGLE COMPONENT STANDARDS

Quality Assurance Materials Bank

(EMSL-LV)

SINGLE COMPONENT STANDARDS
Quality Assurance Materials Bank (EMSL-LV)

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000002-01-05	ACROLEIN	P-DIOXANE	5000
EC-000003-01-03	ACRYLONITRILE	METHANOL	10000
EC-000004-01-06	BENZENE	METHANOL	5000
EC-000004-01-07	BENZENE	METHANOL	5000
EC-000005-01-04	BENZIDINE	METHANOL	5000
EC-000006-01-07	CHLOROBENZENE	METHANOL	5000
EC-000006-01-08	CHLOROBENZENE	METHANOL	5000
EC-000007-01-07	1,2,4-TRICHLOROBENZENE	METHANOL	5000
EC-000008-01-05	HEXACHLOROBENZENE	ACETONE	1000
EC-000009-01-04	1,2-DICHLOROETHANE	METHANOL	5000
EC-000010-01-04	1,1,1-TRICHLOROETHANE	METHANOL	10000
EC-000012-01-05	1,1-DICHLOROETHANE	METHANOL	5500
EC-000013-01-04	1,1,2-TRICHLOROETHANE	METHANOL	5000
EV-000014-02-02	1,1,2,2-TETRACHLOROETHANE	METHANOL	5000
EV-000015-02-02	CHLOROETHANE	2-PROPANOL	11000
EC-000016-02-02	BIS(2-CHLOROETHYL) ETHER	METHANOL	5000
EC-000017-01-07	2-CHLOROETHYL VINYL ETHER	METHANOL	5000
EC-000018-01-05	2-CHLORONAPHTHALENE	METHANOL	5000
EC-000019-04-02	2,4,6-TRICHLOROPHENOL	METHANOL	5000
EC-000021-01-05	CHLOROFORM	METHANOL	5000
EC-000022-03-03	2-CHLOROPHENOL	METHANOL	5000
EC-000023-01-05	1,2-DICHLOROBENZENE	METHANOL	5000
EC-000025-01-06	1,4-DICHLOROBENZENE	METHANOL	5000
EC-000028-01-03	TRANS-1,2-DICHLOROETHYLENE	TETRAGLYME	5000

SINGLE COMPONENT STANDARDS
Quality Assurance Materials Bank (EML-LV)

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000028-02-02	TRANS-1,2-DICHLOROETHYLENE	METHANOL	11500
EC-000029-01-04	2,4-DICHLOROPHENOL	METHANOL	5000
EC-000030-01-03	1,2-DICHLOROPROPANE	METHANOL	10000
EC-000033-02-03	2,4-DINITROTOLUENE	METHANOL	5000
EC-000034-01-05	2,6-DINITROTOLUENE	METHANOL	5000
EC-000036-01-04	ETHYLBENZENE	METHANOL	10000
EC-000037-01-05	FLUORANTHENE	METHANOL	5000
EC-000038-01-03	4-CHLOROPHENYL PHENYL ETHER	METHANOL	5000
EC-000039-01-03	4-BROMOPHENYL PHENYL ETHER	METHANOL	5000
EV-000040-03-02	BIS(2-CHLOROISOPROPYL) ETHER	METHANOL	5000
EC-000041-01-04	BIS(2-CHLOROETHOXY) METHANE	METHANOL	5000
EC-000043-01-03	METHYL CHLORIDE	TETRAGLYME	5000
EC-000043-03-02	METHYL CHLORIDE	2-PROPANOL	5000
EC-000044-01-03	METHYL BROMIDE	TETRAGLYME	5000
EV-000044-03-02	METHYL BROMIDE	2-PROPANOL	5000
EC-000046-01-02	DICHLOROBROMOMETHANE	TETRAGLYME	5000
EC-000046-02-02	DICHLOROBROMOMETHANE	METHANOL	10000
EV-000046-03-02	DICHLOROBROMOMETHANE	METHANOL	5000
EV-000047-02-02	FLUOROTRICHLOROMETHANE	METHANOL	5000
EC-000050-02-02	HEXACHLOROBUTADIENE	METHANOL	5000
EC-000051-01-03	HEXACHLOROCYCLOPENTADIENE	METHANOL	5000
EC-000053-01-05	NAPHTHALENE	METHANOL	5000
EC-000054-01-08	NITROBENZENE	METHANOL	5000
EC-000054-01-10	NITROBENZENE	METHANOL	5000

SINGLE COMPONENT STANDARDS
Quality Assurance Materials Bank (EMSL-LV)

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000055-01-05	2-NITROPHENOL	METHANOL	5000
EC-000056-01-06	NITROPHENOL	METHANOL	5000
EC-000057-01-07	2,4-DINITROPHENOL	METHANOL	5000
EC-000058-01-05	4,6-DINITRO-D-CRESOL	METHANOL	5000
EC-000059-01-05	N-NITROSODIMETHYLAMINE	METHANOL	5000
EC-000060-01-04	N-NITROSODIPHENYLAMINE	CH2CL2	2000
EC-000060-01-06	N-NITROSODIPHENYLAMINE	METHANOL	5000
EC-000061-03-02	N-NITROSODI-N-PROPYLAMINE	METHANOL	5000
EV-000062-03-02	PENTACHLOROPHENOL	METHANOL	5000
EC-000063-01-06	PHENOL	METHANOL	5000
EC-000064-01-05	BIS(2-ETHYLHEXYL) PHTHALATE	METHANOL	5000
EC-000065-01-03	BUTYL BENZYL PHTHALATE	METHANOL	5000
EC-000066-01-07	DI-N-BUTYL PHTHALATE	METHANOL	5000
EC-000067-01-03	DI-N-OCTYL PHTHALATE	METHANOL	5000
EC-000068-01-05	DIETHYL PHTHALATE	METHANOL	5000
EC-000069-01-05	DIMETHYL PHTHALATE	METHANOL	5000
EC-000070-01-04	BENZO(A)ANTHRACENE	METHANOL	1000
EC-000071-01-03	BENZO(A)PYRENE	ACETONE	1000
EC-000072-01-03	BENZO(B)FLUORANTHENE	ACETONE	2500
EC-000073-01-03	BENZO(K)FLUORANTHENE	ACETONE	1000
EC-000075-01-04	ACENAPHTHYLENE	METHANOL	5000
EV-000075-02-02	ACENAPHTHYLENE	METHANOL	5000
EC-000076-02-02	ANTHRACENE	ACETONE	1000
EC-000077-01-04	BENZO(G,H,I)PERYLENE	DIOXANE	1000

SINGLE COMPONENT STANDARDS
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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000078-01-05	FLUORENE	METHANOL	5000
EC-000079-01-05	PHENANTHRENE	METHANOL	5000
EV-000081-03-02	INDENO(1,2,3-C,D)PYRENE	ACETONE	500
EC-000082-01-05	PYRENE	METHANOL	1000
EC-000084-01-07	TOLUENE	METHANOL	5000
EC-000085-01-02	TRICHLOROETHYLENE	TETRAGLYME	5000
EC-000085-01-07	TRICHLOROETHYLENE	METHANOL	10000
EC-000088-02-03	DIELDRIN	METHANOL	1000
EC-000089-01-03	CHLORDANE	HEXANE	5000
EC-000089-01-04	CHLORDANE	HEXANE	10000
EC-000089-01-06	CHLORDANE	METHANOL	5000
EC-000091-01-05	4,4'-DDE	METHANOL	5000
EC-000093-01-06	ALPHA-ENDOSULFAN	DIOXANE	1000
EC-000093-01-04	ENDOSULFAN SULFATE	DIOXANE	1000
EC-000096-01-05	ENDRIN	METHANOL	5000
EC-000097-01-03	ENDRIN ALDEHYDE	METHANOL	5000
EC-000097-01-05	ENDRIN ALDEHYDE	METHANOL	2500
EC-000098-01-06	HEPTACHLOR	METHANOL	5000
EC-000099-01-04	HEPTACHLOR EPOXIDE	METHANOL	2500
EC-000100-01-03	ALPHA-BHC	METHANOL	2500
EC-000101-01-05	BETA-BHC	ACETONE	2500
EC-000102-01-05	GAMMA-BHC	METHANOL	5000
EC-000103-02-02	DELTA-BHC	METHANOL	1000
EC-000104-01-04	PCB-1242	HEXANE	10000

SINGLE COMPONENT STANDARDS
Quality Assurance Materials Bank (EMSL-LV)

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000107-01-03	PCB-1232	HEXANE	5000
EC-000108-01-03	PCB-1248	HEXANE	5000
EC-000108-01-04	PCB-1248	HEXANE	10000
EC-000109-01-03	PCB-1260	HEXANE	5000
EC-000110-01-03	PCB-1016	HEXANE	10000
EC-000111-01-03	TOXAPHENE	HEXANE	5000
EC-000111-01-04	TOXAPHENE	HEXANE	10000
EC-000111-01-06	TOXAPHENE	METHANOL	5000
EC-000124-04-01	4,4'-DDT	METHANOL	5000
EC-000125-01-02	PCB-1016	HEXANE	5000
EC-000125-01-04	PCB-1016 (WEBB)	ISO-OCTANE	5000
EC-000126-01-02	PCB-1221	HEXANE	5000
EC-000126-01-04	PCB-1221	ISO-OCTANE	5000
EC-000130-01-03	PCB-1262	ISO-OCTANE	5000
EV-000136-01-05	BROMOCHLOROMETHANE	METHANOL	9500
ES-000140-01-05	NAPHTHALENE-D8	CH2CL2	1000
ES-000140-01-06	NAPHTHALENE-D8	CH2CL2	1000
ES-000140-03-01	NAPHTHALENE-D8	CH2CL2	5000
ES-000142-01-05	BENZENE-D6	METHANOL	5000
ES-000143-01-06	TOLUENE-D8	METHANOL	5000
ES-000143-04-01	TOLUENE-D8	METHANOL	5000
ES-000144-01-04	ANTHRACENE-D10	CH2CL2	1000
ES-000144-01-05	ANTHRACENE-D10	CH2CL2	1000
EV-000149-01-03	2,4-DICHLOROTOLUENE	METHANOL	5000

SINGLE COMPONENT STANDARDS
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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EV-000150-01-03	O-CHLOROTOLUENE	METHANOL	4986
EV-000152-01-03	P-CHLOROTOLUENE	METHANOL	5000
EV-000158-01-02	1,4-DICHLOROBUTANE	METHANOL	1000
EV-000158-01-04	1,4-DICHLOROBUTANE	METHANOL	5000
ES-000166-03-01	NITROBENZENE-D5	METHANOL	5000
EV-000169-02-02	BENZYL CHLORIDE	CH3CN	5000
EV-000171-01-03	1,2-DIBROMOETHANE	METHANOL	5000
EV-000173-01-05	CIS-1,2-DICHLOROETHYLENE	METHANOL	10000
EV-000175-01-05	1,2,3-TRICHLOROBENZENE	METHANOL	5000
EV-000176-01-05	1,3,5-TRICHLOROBENZENE	METHANOL	5000
EV-000179-01-01	2,4,5-TRICHLOROPHENOL	CH2CL2	1000
EV-000179-01-03	2,4,5-TRICHLOROPHENOL	METHANOL	5000
EV-000182-01-05	3-CHLOROPHENOL	METHANOL	5000
EV-000183-01-05	4-CHLOROPHENOL	METHANOL	5000
EV-000193-04-02	2-FLUOROPHENOL	CH2CL2	5000
EV-000194-02-01	2-FLUOROBIPHENYL	METHANOL	5000
EV-000194-04-01	2-FLUOROBIPHENYL	METHANOL	5000
EV-000200-04-02	CHLORODIBROMOMETHANE	METHANOL	5000
EV-000201-01-03	O-XYLENE	METHANOL	5000
EV-000202-01-03	M-XYLENE	METHANOL	5000
EV-000203-01-03	P-XYLENE	METHANOL	5000
ES-000213-01-01	CHLOROFORM-D	METHANOL	10000
ES-000213-01-02	CHLOROFORM-D	METHANOL	5000

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
ES-000217-02-02	PYRENE-D10	METHANOL	5000
EC-000218-01-03	1,3-DICHLOROPROPYLENE	METHANOL	5000
EC-000220-02-02	ALDRIN	METHANOL	5000
EC-000222-01-03	2,3,5-TRICHLOROPHENOL	METHANOL	5000
EC-000224-03-02	2,4-DIMETHYLPHENOL	METHANOL	5000
EC-000225-01-03	1,2,3,4-TETRACHLOROBENZENE	METHANOL	2500
ES-000229-04-02	CHRYSENE-D12	CH2CL2	1000
ES-000230-03-01	PHENANTHRENE-D10	CH2CL2	5000
ES-000230-03-02	PHENANTHRENE-D10	CH2CL2	5000
EC-000231-01-04	DIBENZ(A,H)ANTHRACENE	DIOXANE	1000
EC-000232-01-02	FLUOROBENZENE	METHANOL	5000
EC-000232-01-04	FLUOROBENZENE	METHANOL	5000
EC-000233-01-04	4-BROMOFLUOROBENZENE	METHANOL	5000
EC-000238-01-03	N-DODECANE	HEXADECANE	5000
EC-000238-01-05	N-DODECANE	HEXADECANE	5000
EC-000250-01-01	O-CRESOL	CH2CL2	1000
EC-000250-01-04	O-CRESOL	METHANOL	5000
EC-000251-01-03	M-CRESOL	METHANOL	5000
EC-000252-01-02	P-CRESOL	CH2CL2	1000
EC-000252-01-03	P-CRESOL	CH2CL2	1000
EC-000257-01-01	STYRENE	METHANOL	5000
EC-000257-01-02	STYRENE	TETRAGLYME	5000
EC-000257-01-05	STYRENE	METHANOL	5000
EC-000258-01-03	EPICHLOROHYDRIN	CH3CN	5000

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000261-01-01	DIBENZOFURAN	CH2CL2	1000
EC-000284-01-02	ACETONE	TETRAGLYME	5000
EC-000284-01-03	ACETONE	METHANOL	5000
EC-000285-01-03	DIETHYL ETHER	METHANOL	5000
EC-000286-01-03	1,2-EPOXYBUTANE	CH3CN	5000
EV-000298-01-02	N-NITROSOPYRROLIDINE	METHANOL	5000
EV-000299-01-02	2-FLUOROACETAMIDE	METHANOL	5000
EV-000300-01-02	PENTACHLOROETHANE	METHANOL	5000
EV-000305-01-02	4-CHLOROANILINE (P-CHLOROANILINE)	BENZENE	1000
EV-000305-01-04	4-CHLOROANILINE (P-CHLOROANILINE)	METHANOL	5000
EC-000311-01-02	METHYL ETHYL KETONE	TETRAGLYME	5000
EV-000324-01-02	O-NITROANILINE (2-NITROANILINE)	BENZENE	1000
EV-000324-01-04	O-NITROANILINE (2-NITROANILINE)	METHANOL	5000
EV-000325-01-02	M-NITROANILINE (3-NITROANILINE)	BENZENE	1000
EV-000325-01-04	M-NITROANILINE (3-NITROANILINE)	METHANOL	5000
EV-000326-01-01	BENZYL ALCOHOL	CH2CL2	1000
EV-000327-01-04	VINYL ACETATE	P-DIOXANE	5000
EV-000327-01-06	VINYL ACETATE	CH3CN	5000
EC-000330-02-02	2,4-DICHLOROPHENOXY ACETIC ACID	ACETONITRILE	5000
EV-000333-01-02	N-NONANE	ISO-OCTANE	5000
EV-000333-01-03	N-NONANE	HEXADECANE	5000
EV-000333-01-04	N-NONANE	METHANOL	5000
EV-000334-01-02	N-NITROSODIETHYLAMINE	METHANOL	5000
EV-000335-02-02	1,1,1,2-TETRACHLOROETHANE	METHANOL	5000

SINGLE COMPONENT STANDARDS
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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EV-000336-01-02	2-HEXANONE	TETRAGLYME	5000
EV-000336-01-03	2-HEXANONE	METHANOL	5000
EV-000338-01-02	PROPIONITRILE	METHANOL	5000
EV-000342-01-02	P-NITROANILINE (4-NITROANILINE)	BENZENE	1000
EV-000342-01-04	P-NITROANILINE (4-NITROANILINE)	METHANOL	5000
EV-000346-01-01	DICHLORODIFLUOROMETHANE	METHANOL	5000
EV-000346-01-02	DICHLORODIFLUOROMETHANE	TETRAGLYME	5000
EV-000349-01-01	4-METHYL-2-PENTANONE	METHANOL	5000
EV-000349-01-02	4-METHYL-2-PENTANONE	TETRAGLYME	5000
EV-000349-01-04	4-METHYL-2-PENTANONE	METHANOL	5000
EV-000360-01-04	CARBON TETRACHLORIDE	METHANOL	5000
EV-000363-01-01	CARBON DISULFIDE	METHANOL	5000
EV-000363-01-02	CARBON DISULFIDE	TETRAGLYME	5000
EV-000368-01-02	1,2,3-TRICHLOROPROPANE	METHANOL	5000
EV-000377-01-02	M-BROMOBENZOTRIFLUORIDE	METHANOL	5000
EV-000400-01-03	2-FLUOROANILINE	BENZENE	5000
EV-000436-01-03	DECAFLUOROBIPHENYL	CH2CL2	5000
EV-000437-01-03	PENTAFLUOROPHENOL	CH2CL2	5000
EV-000446-01-02	BIS(PERFLUOROISOPROPYL)KETONE	METHANOL	5000
EV-000463-01-05	1,2-DIBROMO-1,1,2,2-TETRAFLUOROETHANE	METHANOL	5000
EV-000463-01-06	1,2-DIBROMO-1,1,2,2-TETRAFLUOROETHANE	TETRAGLYME	5000
ES-000465-01-02	BROMOBENZENE-D5	CH2CL2	1000
ES-000465-01-03	BROMOBENZENE-D5	CH2CL2	1000
ES-000466-01-02	BIPHENYL-D10	CH2CL2	1000

SINGLE COMPONENT STANDARDS
 Quality Assurance Materials Bank (EMSL-LV)

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
ES-000466-01-03	BIPHENYL-D10	CH2CL2	1000
ES-000467-02-01	ACENAPHTHENE-D10	BENZENE	2000
EC-000470-01-03	HALOWAX-1099	METHANOL	5000
ES-000491-01-01	2,4-DINITROPHENOL-(3,5,6-D3)	BENZENE	2000
ES-000508-01-01	PYRIDINE-D5	MEOH	1000
ES-000511-01-01	ETHYLBENZENE-D5	METHANOL	5000
ES-000511-02-01	ETHYLBENZENE-D5	METHANOL	5000
ES-000517-01-01	ANILINE-D5	BENZENE	5000
EV-000520-01-01	CIS-1,3-DICHLOROPROPENE	METHANOL	5000
EV-000520-01-02	CIS-1,3-DICHLOROPROPENE	TETRAGLYME	5000
ES-000531-06-01	PHENOL-D5	CH2CL2	5000
EV-000536-04-02	VINYL CHLORIDE	2-PROPANOL	4500
EV-000541-01-02	BENZOIC ACID	CH2CL2	1000
EV-000542-01-02	ANILINE	BENZENE	1000
EV-000542-01-04	ANILINE	METHANOL	5000
EC-000552-02-02	SILVEX	CH3CN	5000
EV-000562-01-01	2-METHYLNAPHTHALENE	CH2CL2	1000
ES-000571-01-01	NITROBENZENE-D5	CH2CL2	5000
EC-000713-01-02	PICLORAM	ACETONITRILE	5000
EV-000720-01-01	2-BROMO-1-CHLOROPROPANE	METHANOL	1000
EV-000720-01-02	2-BROMO-1-CHLOROPROPANE	TETRAGLYME	5000
EV-000720-01-03	2-BROMO-1-CHLOROPROPANE	METHANOL	5000
ES-000726-01-01	PHENOL-D3	CH2CL2	2000
EV-000791-01-01	P-DIFLUOROBENZENE	METHANOL	10000

SINGLE COMPONENT STANDARDS
Quality Assurance Materials Bank (EMSL-LV)

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EV-000797-02-01	GAMMA-CHLORDANE	HEXANE	5000
EV-000798-03-01	DIBUTYL CHLORENDATE	METHANOL	5000
EV-000875-01-03	2,4,6-TRIBROMOPHENOL	METHANOL	5000
ES-000876-03-01	1,2-DICHLOROETHANE-D4	METHANOL	5000
ES-000897-03-01	1,4-DICHLOROBENZENE-D4	CH2CL2	5000
EV-000903-02-01	ALPHA-CHLORDANE	HEXANE	5000
ES-000909-02-01	P-TERPHENYL-D14	THF	5000
EC-000952-01-03	P,P'-METHOXYCHLOR	METHANOL	5000
EC-000993-04-02	1,2-DIBROMO-3-CHLOROPROPANE	METHANOL	5000
ES-001006-05-01	BENZO(A)PYRENE-D12	BENZENE	5000
ES-001009-03-01	PERYLENE-D12	CS2	2000
EV-001010-02-01	DFTPP	CH2CL2	1000
ES-001021-04-01	CHLOROBENZENE-D5	METHANOL	5000
EV-001036-01-01	ENDRIN KETONE	ETHYL ACETATE	2000
EC-001089-01-02	ALACHLOR	METHANOL	1000
EC-001097-01-02	DIBROMOMETHANE	METHANOL	5000

SECTION 2

MULTICOMPONENT STANDARDS

**Quality Assurance Materials Bank
(EMSL-LV)**

MULTICOMPONENT STANDARDS
Quality Assurance Materials Bank
(EMSL - LV)

NSI-ES Code	Compound Name	Solvent	Conc. (µg/mL)
C-016-01	<u>Mixed Acids</u>	Methylene chloride	
	2-Chlorophenol		1000
	2,4-Dichlorophenol		1000
	2,4-Dimethylphenol		1000
	4,6-Dinitro-o-cresol		1000
	4-Nitrophenol		1000
	2,4,6-Trichlorophenol		1000
C-017-01	<u>Mixed Pesticides</u>	Isooctane	
	<i>gamma</i> -BHC		5.0
	4,4'-DDT		20.3
	Dieldrin		10.5
	Endrin		20.9
	Heptachlor		5.1
C-029-01	<u>Chlorinated Aromatics I</u>	Methanol	
	1,4-Dichlorobenzene		1000
	1,2,4,5-Tetrachlorobenzene		1000
	1,2,4-Trichlorobenzene		1000
C-030-01	<u>Chlorinated Aromatics III</u>	Methanol	
	<i>m</i> -Chlorotoluene		1000
	<i>o</i> -Chlorotoluene		1000
	<i>p</i> -Chlorotoluene		1000
	2,4-Dichlorotoluene		1000
	Toluene		1000
	<i>alpha, alpha</i> ,2,6-Tetrachlorotoluene		1000

(continued)

NSI-ES Code	Compound Name	Solvent	Conc. (µg/mL)
C-043-01	<u>Pesticides II</u>	Toluene/ Hexane 1:1	
	Aldrin		2000
	<i>alpha</i> -BHC		2000
	<i>beta</i> -BHC		2000
	<i>gamma</i> -BHC		2000
	<i>delta</i> -BHC		2000
	4,4'-DDD		2000
	4,4'-DDE		2000
	4,4'-DDT		2000
	Dieldrin		2000
	<i>alpha</i> -Endosulfan		2000
	<i>beta</i> -Endosulfan		2000
	Endosulfan sulfate		2000
	Endrin		2000
	Endrin aldehyde		2000
	Heptachlor		2000
	Heptachlor epoxide		2000
C-045-02	<u>Volatile Compounds IX</u>	Methanol	
	Bromodichloromethane		2000
	Dibromochloromethane		2000
	1,2-Dichloroethane		2000
	<i>trans</i> -1,2-Dichloroethene		2000
	<i>cis</i> -1,3-Dichloropropene		2000
	<i>trans</i> -1,3-Dichloropropene		2000
	Methylene chloride		2000
	1,1,2,2-Tetrachloroethene		2000
	1,1,1-Trichloroethane		2000
	Trichlorofluoromethane		2000
	Vinyl chloride		2000
C-046-01	<u>Chlorinated Aromatics I</u>	Tetrahydro- furan	
	Benzene		1000
	Chlorobenzene		1000
	Hexachlorobenzene		1000
	Pentachlorobenzene		1000
C-047-01	<u>PCB 1232 and PCB 1260</u>	Hexane	
	PCB 1232		10000
	PCB 1260		10000
C-048-01	<u>PCB 1221 and PCB 1254</u>	Hexane	
	PCB 1221		10000
	PCB 1254		10000

(continued)

NSI-ES Code	Compound Name	Solvent	Conc. (µg/mL)
C-050-01	<u>Thioureas I</u>	Acetonitrile/ 2-Propanol 1:1	
	Ethylenethiourea		1000
	1-(1-Naphthyl)-2-thiourea		1000
	<i>n</i> -Phenylthiourea		1000
	6-N-Propyl-2-thiouracil		1000
	Thioacetamide		1000
	2-Thio-6-methyluracil		1000
	Thiosemicarbazide		1000
	Thiourea		1000
C-058-01	<u>Carbamates</u>	Acetone	
	Carbofuran		1000
	Cycloate		1000
	EPTC		1000
	Diallate		1000
	Molinate		1000
C-059-01	<u>Metals I</u>	Water	
	Aluminum		500
	Arsenic		2
	Lead		2
	Selenium		1
C-060-01	<u>Metals II</u>	Water	
	Antimony		1
	Arsenic		2
	Boron		5
	Cadmium		0.5
	Chromium		0.1
	Iron		1000
	Vanadium		1000
C-069-01	<u>1,3-Dichloropropylene (<i>cis,trans</i> mix)</u>	Methanol	
	<i>cis</i> -1,3-Dichloropropylene		5000
	<i>trans</i> -1,3-Dichloropropylene		5000
C-075-02	<u>Basic Extractables</u>	Benzene	
	4-Chloroaniline		5000
	2-Nitroaniline		5000
	3-Nitroaniline		5000
	4-Nitroaniline		5000

(continued)

NSI-ES Code	Compound Name	Solvent	Conc. (µg/mL)
C-084-02	<u>Volatile Compounds VII</u>	Methanol	
	Bromoform		2000
	Bromomethane		2000
	Carbon tetrachloride		2000
	Chlorobenzene		2000
	Chloroethane		2000
	Chloroform		2000
	Chloromethane		2300
	1,1-Dichloroethane		2000
	1,1-Dichloroethylene		1800
	1,2-Dichloropropane		2000
	1,1,2,2-Tetrachloroethane		2000
	1,1,2-Trichloroethane		2000
	1,1,2-Trichloroethene		2000
C-087-02	<u>Volatile Compounds V</u>	Methanol	
	Acetone		5000
	Carbon disulfide		5000
	2-Hexanone		5000
	Methyl ethyl ketone		5000
	4-Methyl-2-pentanone		5000
C-088-01	<u>Organics Surrogate</u>	CH ₂ Cl ₂	
	Phenol-d ₅		5000
	2-Fluorophenol		5000
	Nitrobenzene-d ₅		5000
	2-Fluorobiphenyl		5000
	2,4,6-Tribromophenol		5000
C-090-01	<u>Acid Extractables II</u>	CH ₂ Cl ₂	
	Benzoic acid		2000
	<i>p</i> -Chloro- <i>m</i> -cresol		2000
	2-Chlorophenol		2000
	<i>o</i> -Cresol		2000
	<i>p</i> -Cresol		2000
	2,4-Dichlorophenol		2000
	2,4-Dimethylphenol		2000
	4,6-Dinitro- <i>o</i> -cresol		2000
	2,4-Dinitrophenol		2000
	2-Nitrophenol		2000
	4-Nitrophenol		2000
	Pentachlorophenol		2000
	Phenol		2000
	2,4,5-Trichlorophenol		2000
	2,4,6-Trichlorophenol		2000

(continued)

NSI-ES Code	Compound Name	Solvent	Conc. (µg/mL)
C-092-01	<u>Volatile Compounds VI</u>	Methanol	
	Benzene		2000
	Ethylbenzene		2000
	Styrene		2000
	Toluene		2000
	o-Xylene		2000
C-093-01	<u>Pesticides II</u>		
	Aldrin		2000
	<i>alpha</i> -BHC		2000
	<i>beta</i> -BHC		2000
	<i>delta</i> -BHC		2000
	<i>gamma</i> -BHC		2000
	4,4'-DDD		2000
	4,4'-DDE		2000
	4,4'-DDT		2000
	Dieldrin		2000
	<i>alpha</i> -Endosulfan		2000
	<i>beta</i> -Endosulfan		2000
	Endosulfan sulfate		2000
	Endrin		2000
	Endrin aldehyde		2000
	Heptachlor		2000
	Heptachlor epoxide		2000
	Endrin ketone		1000
	<i>p,p'</i> -Methoxychlor		2000
C-094-01	<u>Neutral Extractables A</u>	CH ₂ Cl ₂	
	Butyl benzyl phthalate		2000
	<i>bis</i> (2-Chloroethoxy) methane		2000
	<i>bis</i> (2-Chloroisopropyl) ether		2000
	N-Nitrosodimethylamine		2000
	<i>bis</i> (2-Chloroethyl) ether		2000
	4-Chlorophenyl phenyl ether		2000
	Diethyl phthalate		2000
	Dimethyl phthalate		2000
	Di- <i>n</i> -butyl phthalate		2000
	Di- <i>n</i> -octyl phthalate		2000
	<i>bis</i> (2-Ethylhexyl) phthalate		2000
	N-Nitrosodi- <i>n</i> -propylamine		2000
	4-Bromophenyl phenyl ether		2000

(continued)

NSI-ES Code	Compound Name	Solvent	Conc. (µg/mL)
C-097-01	<u>Neutral Extractables B</u>	CH ₂ Cl ₂	
	1,3-Dichlorobenzene		2000
	2,4-Dinitrotoluene		2000
	2,6-Dinitrotoluene		2000
	1,2,4-Trichlorobenzene		2000
	Dibenzofuran		2000
	1,2-Dichlorobenzene		2000
	1,4-Dichlorobenzene		2000
	Hexachlorobenzene		2000
	Hexachlorocyclopentadiene		2000
	Isophorone		2000
	Nitrobenzene		2000
	Benzyl alcohol		2000
	Hexachlorobutadiene		2000
	Hexachloroethane		2000
	2-Methylnaphthalene		2000
	2-Chloronaphthalene		2200
C-098-01	<u>Polynuclear Aromatics (PNAs)</u>	CH ₂ Cl ₂	
	Acenaphthylene		2000
	Benzo(a)anthracene		2000
	Benzo(b)fluoranthene		2000
	Fluoranthene		2000
	Indeno(1,2,3-c,d)pyrene		2000
	Phenanthrene		2000
	Acenaphthene		2000
	Anthracene		2000
	Benzo(k)fluoranthene		2000
	Dibenz(a,h)anthracene		2000
	Fluorene		2000
	Pyrene		2000
	Benzo(g,h,i)perylene		2000
	Benzo(a)pyrene		2000
	Chrysene		2000
	Naphthalene		2000

The following lots of multicomponent standards have been depleted and are no longer available through the Quality Assurance Materials Bank:

NSI-ES Code	Compound Name
C-001-01	Acids
C-002-01	Base/Neutrals I
C-003-01	Base/Neutrals II
C-004-01	Pesticides
C-005-01	Base/Neutrals III
C-006-01	Base/Neutrals IV
C-007-01	Base/Neutral Check Standard I
C-008-01	Base/Neutral Check Standard II
C-009-01	Volatiles Check Standard
C-010-01	Volatiles – Internal Standard
C-011-01	Base/Neutral Internal Standard
C-012-01	Acids – Internal Standard
C-013-01	Acids – Internal Standard
C-014-01	Base/Neutral Surrogate Standard
C-015-01	Base/Neutral/Acid Surrogate Spike
C-018-01	Acids I
C-019-01	Neutral Extractables I
C-020-01	Neutral Extractables II
C-020-01	Volatile Compounds I
C-021-01	Volatile Compounds II
C-022-01	Volatile Compounds III
C-025-01	Volatile Compounds IV
C-026-01	Basic Extractables I
C-031-01	Pesticides I
C-033-01	Neutral Extractables III
C-035-01	Volatiles V
C-036-01	Volatiles VI
C-037-01	Volatiles VII
C-038-01	Volatiles VIII
C-039-01	Neutral Extractables IV
C-040-01	Neutral Extractables V
C-041-01	Neutral Extractables VI
C-044-01	Acid Extractables II
C-045-01	Volatile Compounds IX
C-049-01	Volatiles X
C-075-01	Basic Extractables I
C-084-01	Volatile Compounds VII

SECTION 3

SINGLE COMPONENT TCDD STANDARDS

**Quality Assurance Materials Bank
(EMSL-LV)**

These standards are routinely available only to those laboratories directly involved in the CERCLA National Dioxin Monitoring Program. All requests for standards from other organizations must be approved by the QAMB Project Officer (EMSL-LV).

TCDD SINGLE COMPONENT STANDARDS
Quality Assurance Materials Bank
(EMSL-LV)

NSI-ES Code	Compound	Solvent	Conc. (µg/mL)
EC-000206-01-03	2,3,7,8 - TCDD	Isooctane	7.87
EL-000812-01-01	¹³ C ₁₂ -2,3,7,8 - TCDD	Isooctane	1.00

The following materials, which will be shipped only at the request of the Director, Quality Assurance and Methods Development Division (EMSL-LV), are available for use as qualitative solutions at a nominal concentration of 100 ng/mL in isooctane:

EV-001056-01-02	1,3,7,8-TCDD
EV-001057-01-02	1,2,8,9-TCDD
EV-001058-01-02	1,2,3,4-TCDD
EV-001059-01-02	1,4,7,8-TCDD
EV-001060-01-02	1,2,7,8-TCDD ^a
EV-001061-01-02	1,3,6,9-TCDD
EV-001062-01-02	1,2,7,9-TCDD ^b
EV-001063-01-02	1,2,3,9-TCDD
EV-001064-01-02	1,2,6,8-TCDD ^c
EV-001065-01-02	1,2,3,6-TCDD
EV-001066-01-02	1,2,6,9-TCDD
EV-001067-01-02	1,4,6,9-TCDD
EV-001068-01-02	1,2,6,7-TCDD

EV-001069-01-02	1,3,6,8-TCDD
EV-001070-01-02	1,3,7,9-TCDD
EV-001071-01-02	1,2,3,7-TCDD
EV-001072-01-02	1,2,3,8-TCDD
EV-001073-01-02	1,2,4,6-TCDD ^d
EV-001074-01-02	1,2,4,9-TCDD ^e
EV-001075-01-02	1,2,4,7-TCDD ^f
EV-001076-01-02	1,2,4,8-TCDD ^g
EV-001077-01-02	2,3,7,8-TCDD

^a Identification based on IR analysis.

^b Identification based on IR analysis.

^c Identification based on IR analysis.

^d Identification based on IR analysis. GC/MS does not differentiate this isomer from 1,2,4,9-TCDD.

^e Identification based on IR analysis. GC/MS does not differentiate this isomer from 1,2,4,6-TCDD.

^f Identification based on IR analysis. GC/MS does not differentiate this isomer from 1,2,4,8-TCDD.

^g Identification based on IR analysis. GC/MS does not differentiate this isomer from 1,2,4,7-TCDD.

SECTION 4
MULTICOMPONENT TCDD STANDARDS

Quality Assurance Materials Bank
(EMSL-LV)

These standards are routinely available only to those laboratories directly involved in the CERCLA National Dioxin Monitoring Program. All requests for standards from other organizations must be approved by the QAMB Project Officer (EMSL-LV).

NSI-ES Code	Compound Name	Solvent	Conc. (ng/ μ L)
C-057-01	<u>Dioxin Spiking II</u>	Toluene	
	$^{13}\text{C}_{12}$ -2,3,7,8-TCDD		0.50
	$^{37}\text{Cl}_4$ -2,3,7,8-TCDD		0.10
C-077-02	<u>TCDD Calibration I - CC1</u>	Isooctane	
	2,3,7,8-TCDD		0.2
	$^{13}\text{C}_{12}$ -2,3,7,8-TCDD		1.05
	$^{37}\text{Cl}_4$ -2,3,7,8-TCDD		0.093
C-078-02	<u>TCDD Calibration II - CC2</u>	Isooctane	
	2,3,7,8-TCDD		1.0
	$^{13}\text{C}_{12}$ -2,3,7,8-TCDD		1.05
	$^{37}\text{Cl}_4$ -2,3,7,8-TCDD		0.19
C-079-02	<u>TCDD Calibration III - CC3</u>	Isooctane	
	2,3,7,8-TCDD		5.0
	$^{13}\text{C}_{12}$ -2,3,7,8-TCDD		1.05
	$^{37}\text{Cl}_4$ -2,3,7,8-TCDD		0.38
C-080-02	<u>TCDD Calibration IV - CC4</u>	Isooctane	
	2,3,7,8-TCDD		20.0
	$^{13}\text{C}_{12}$ -2,3,7,8-TCDD		1.05
C-081-01	<u>TCDD Calibration V</u>	Isooctane	
	2,3,7,8-TCDD		40.0
	$^{13}\text{C}_{12}$ -2,3,7,8-TCDD		1.0
C-081-02	<u>TCDD Calibration V</u>	Isooctane	
	2,3,7,8-TCDD		
	$^{37}\text{Cl}_{12}$ -2,3,7,8-TCDD		
C-085-01	<u>TCDD Spiking I</u>	Isooctane	
	2,3,7,8-TCDD		0.10 $\pm$ 0.01
	$^{13}\text{C}_{12}$ -2,3,7,8-TCDD		0.50 $\pm$ 0.05
	$^{37}\text{Cl}_4$ -2,3,7,8-TCDD		0.10 $\pm$ 0.01

(continued)

NSI-ES Code	Compound Name	Solvent	Conc. (ng/μL)
C-086-01	<u>TCDD Spiking II</u>	Isooctane	
	¹³ C ₁₂ -2,3,7,8-TCDD		0.50 ± 0.05
	³⁷ Cl ₄ -2,3,7,8-TCDD		0.10 ± 0.01
C-091-03	<u>TCDD Column Performance Check Mixture</u>		
	1,2,3,4-TCDD		100 ng
	2,3,7,8-TCDD		100 ng
	1,2,3,7/1,2,3,8-TCDD		100 ng
	1,2,7,8-TCDD		45 ng
	1,4,7,8-TCDD		145 ng
C-091-04	<u>TCDD Column Performance Check Mixture</u>		
	1,2,3,4-TCDD		100 ng
	2,3,7,8-TCDD		100 ng
	1,2,3,7/1,2,3,8-TCDD		100 ng
	1,2,7,8-TCDD		45 ng
	1,4,7,8-TCDD		145 ng
C-095-01	<u>TCDD Spiking I</u>	Isooctane	
	2,3,7,8-TCDD		0.10
	¹³ C ₁₂ -2,3,7,8-TCDD		0.50
	³⁷ Cl ₄ -2,3,7,8-TCDD		0.10
C-096-01*	<u>TCDD Spiking II</u>	Isooctane	
	¹³ C ₁₂ -2,3,7,8-TCDD		0.50
	³⁷ Cl ₄ -2,3,7,8-TCDD		0.10
C-102-01	<u>TCDD Isomer Mix II</u>	Isooctane/ Hexane 1:1	
	This qualitative solution of the 22 TCDD isomers at a nominal concentration of 100 ng/μL each will be shipped only at the request of the Director, Quality Assurance and Methods Development Division (EMSL-LV).		
C-103-01**	<u>TCDD Isomer Mix III</u>	Isooctane	
	1,4,6,9-TCDD		2.75
	1,2,3,4-TCDD		8.92

(continued)

NSI-ES Code	Compound Name	Solvent	Conc. (ng/μL)
C-104-01**	<u>TCDD Isomer Mix IV</u>	Isooctane	
	1,2,4,6-TCDD		8.52
	1,2,4,9-TCDD		5.43
	1,3,6,9-TCDD		11.57
	1,2,6,8-TCDD		5.44
	1,2,7,9-TCDD		5.14
C-105-01**	<u>TCDD Isomer Mix V</u>	Isooctane	
	2,3,7,8-TCDD		12.56
	1,2,8,9-TCDD		3.58
	1,2,6,7-TCDD		15.10
	1,3,6,8-TCDD		7.50
	1,3,7,9-TCDD		8.11
	1,2,6,9-TCDD		7.23
	1,3,7,8-TCDD		11.74
	1,4,7,8-TCDD		8.98
	1,2,7,8-TCDD		4.46
	1,2,3,6-TCDD		11.04
	1,2,3,9-TCDD		3.19
	1,2,4,7-TCDD		8.03
	1,2,4,8-TCDD		10.29
	1,2,3,7-TCDD		10.75
	1,2,3,8-TCDD		6.02
C-106-01*	<u>TCDD Spiking II - Sample Fortification Solution</u>	Isooctane	
	¹³ C ₁₂ -2,3,7,8-TCDD		0.50
	³⁷ Cl ₄ -2,3,7,8-TCDD		0.014
C-107-01	<u>TCDD Spiking I - Field Blank Fortification Solution</u>	Isooctane	
	2,3,7,8-TCDD		0.10
	¹³ C ₁₂ -2,3,7,8-TCDD		0.50
	³⁷ Cl ₄ -2,3,7,8-TCDD		0.014

* Residual concentration of 2,3,7,8-TCDD is ≤0.001 μg/mL.

** Solutions C-103-01, C-104-01, and C-105-01 are qualitative mixes of the 22 TCDD isomers in the combinations and at the nominal concentrations listed. They will be shipped **only** at the request of the Director, Quality Assurance and Methods Development Division (EMSL-LV).

HIGH RESOLUTION MASS SPECTROMETRY TCDD STANDARDS

Analytical reference standards for use in the CLP High Resolution Mass Spectrometry TCDD Protocol should be available for general distribution later in 1987.

SECTION 5

SINGLE COMPONENT STANDARDS

**Toxic and Hazardous Materials Repository
(EMSL-CI)**

SINGLE COMPONENT STANDARDS
Toxic and Hazardous Materials Repository (EMCL-CI)

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000001-01-04	ACENAPHTHENE	METHANOL	5000
EC-000002-01-03	ACROLEIN	DIOXANE	10000
EC-000002-01-04	ACROLEIN	DIOXANE	5000
EC-000003-01-02	ACRYLONITRILE	METHANOL	10000
EC-000004-01-04	BENZENE	METHANOL	10000
EC-000004-01-05	BENZENE	METHANOL	5000
EC-000005-01-03	BENZIDINE	METHANOL	5000
EC-000006-01-06	CHLORO BENZENE	METHANOL	5000
EC-000007-01-06	1,2,4-TRICHLORO BENZENE	METHANOL	5000
EC-000008-01-04	HEXACHLORO BENZENE	ACETONE	1000
EC-000009-01-03	1,2-DICHLOROETHANE	METHANOL	5000
EC-000010-01-03	1,1,1-TRICHLOROETHANE	METHANOL	10000
EC-000011-01-02	HEXACHLOROETHANE	METHANOL	5000
EC-000012-01-04	1,1-DICHLOROETHANE	METHANOL	5500
EC-000013-01-03	1,1,2-TRICHLOROETHANE	METHANOL	5000
EV-000014-02-01	1,1,2,2-TETRACHLOROETHANE	METHANOL	5000
EV-000015-02-01	CHLOROETHANE	2-PROPANOL	11000
EC-000016-02-01	BIS(2-CHLOROETHYL) ETHER	METHANOL	5000
EC-000017-01-06	2-CHLOROETHYL VINYL ETHER	METHANOL	5000
EC-000018-01-04	2-CHLORONAPHTHALENE	METHANOL	5000
EC-000019-04-01	2,4,6-TRICHLOROPHENOL	METHANOL	5000
EC-000020-01-05	P-CHLORO-M-CRESOL (4-CHLORO-3-METHYL PHENOL)	METHANOL	5000
EC-000021-01-04	CHLOROFORM	METHANOL	5000
EC-000022-03-01	2-CHLOROPHENOL	METHANOL	5000

SINGLE COMPONENT STANDARDS
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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000023-01-04	1,2-DICHLOROBENZENE	METHANOL	5000
EV-000025-02-01	1,4-DICHLOROBENZENE	METHANOL	5000
EC-000026-01-03	3,3'-DICHLOROBENZIDINE	METHANOL	5000
EV-000027-02-03	1,1-DICHLOROETHYLENE	METHANOL	1000
EC-000028-02-01	TRANS-1,2-DICHLOROETHYLENE	METHANOL	11500
EC-000029-01-03	2,4-DICHLOROPHENOL	METHANOL	5000
EC-000030-01-02	1,2-DICHLOROPROPANE	METHANOL	10000
EC-000033-02-01	2,4-DINITROTOLUENE	METHANOL	5000
EC-000033-02-04	2,4-DINITROTOLUENE	METHANOL	5000
EC-000034-01-03	2,6-DINITROTOLUENE	METHANOL	5000
EC-000036-01-03	ETHYLBENZENE	METHANOL	10000
EC-000037-01-04	FLUORANTHENE	METHANOL	5000
EC-000038-01-01	4-CHLOROPHENYL PHENYL ETHER	METHANOL	5000
EC-000038-01-02	4-CHLOROPHENYL PHENYL ETHER	METHANOL	5000
EC-000039-01-02	4-BROMOPHENYL PHENYL ETHER	METHANOL	5000
EC-000040-01-02	BIS(2-CHLOROISOPROPYL) ETHER	METHANOL	5000
EV-000040-03-01	BIS(2-CHLOROISOPROPYL) ETHER	METHANOL	5000
EC-000041-01-03	BIS(2-CHLOROETHOXY) METHANE	METHANOL	5000
EC-000042-01-02	METHYLENE CHLORIDE	METHANOL	10000
EC-000042-01-03	METHYLENE CHLORIDE	METHANOL	10000
EC-000043-01-04	METHYL CHLORIDE	2-PROPANOL	4500
EC-000043-03-01	METHYL CHLORIDE	2-PROPANOL	5000
EC-000044-01-02	METHYL BROMIDE	2-PROPANOL	9940
EC-000046-02-01	DICHLOROBROMOMETHANE	METHANOL	10000

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EV-000046-03-01	DICHLOROBROMOMETHANE	METHANOL	5000
EV-000047-02-01	FLUOROTRICHLOROMETHANE	METHANOL	5000
EC-000050-01-02	HEXACHLOROBUTADIENE	METHANOL	5000
EC-000050-02-01	HEXACHLOROBUTADIENE	METHANOL	5000
EC-000051-01-02	HEXACHLOROCYCLOPENTADIENE	METHANOL	5000
EC-000052-01-02	ISOPHORONE	METHANOL	5000
EC-000053-01-04	NAPHTHALENE	METHANOL	5000
EC-000054-01-07	NITROBENZENE	METHANOL	5000
EC-000054-01-09	NITROBENZENE	METHANOL	5000
EC-000055-01-03	2-NITROPHENOL	METHANOL	5000
EC-000055-01-04	2-NITROPHENOL	METHANOL	5000
EC-000056-01-04	4-NITROPHENOL	METHANOL	5000
EC-000057-01-06	2,4-DINITROPHENOL	METHANOL	5000
EC-000058-01-04	4,6-DINITRO-O-CRESOL	METHANOL	5000
EC-000059-01-03	N-NITROSODIMETHYLAMINE	METHANOL	5000
EC-000059-01-04	N-NITROSODIMETHYLAMINE	METHANOL	5000
EC-000060-01-03	N-NITROSODIPHENYLAMINE	METHANOL	5000
EC-000060-01-05	N-NITROSODIPHENYLAMINE	METHANOL	5000
EC-000061-01-04	N-NITROSODI-N-PROPYLAMINE	METHANOL	5000
EC-000061-03-01	N-NITROSODI-N-PROPYLAMINE	METHANOL	5000
EC-000062-01-04	PENTACHLOROPHENOL	METHANOL	5000
EV-000062-03-01	PENTACHLOROPHENOL	METHANOL	5000
EC-000063-01-04	PHENOL	METHANOL	5000
EC-000064-01-04	BIS(2-ETHYLHEXYL) PHTHALATE	METHANOL	5000

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000065-01-02	BUTYL BENZYL PHTHALATE	METHANOL	5000
EC-000066-01-06	DI-N-BUTYL PHTHALATE	METHANOL	5000
EC-000067-01-02	DI-N-OCTYL PHTHALATE	METHANOL	5000
EC-000068-01-04	DIETHYL PHTHALATE	METHANOL	5000
EC-000069-01-04	DIMETHYL PHTHALATE	METHANOL	5000
EC-000070-01-03	BENZO(A)ANTHRACENE	METHANOL	1000
EC-000071-01-02	BENZO(A)PYRENE	ACETONE	1000
EC-000072-01-02	BENZO(B)FLUORANTHENE	ACETONE	2500
EC-000073-01-02	BENZO(K)FLUORANTHENE	ACETONE	1000
EC-000074-01-04	CHRYSENE	ACETONE	1000
EC-000075-01-03	ACENAPHTHYLENE	METHANOL	5000
EC-000076-01-03	ANTHRACENE	ACETONE	1000
EC-000076-02-01	ANTHRACENE	ACETONE	1000
EC-000077-01-03	BENZO(G,H,I)PERYLENE	DIOXANE	1000
EC-000078-01-04	FLUORENE	METHANOL	5000
EC-000079-01-04	PHENANTHRENE	METHANOL	5000
EC-000081-01-01	INDENO(1,2,3-C,D)PYRENE	ACETONE	500
EC-000082-01-04	PYRENE	METHANOL	1000
EC-000083-01-02	TETRACHLOROETHYLENE	METHANOL	10000
EC-000084-01-05	TOLUENE	METHANOL	10000
EC-000085-01-05	TRICHLOROETHYLENE	METHANOL	10000
EC-000087-01-03	ENDRIN	METHANOL	5000
EC-000088-02-02	DIELDRIN	METHANOL	1000
EC-000089-01-05	CHLORDANE	METHANOL	5000

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000091-01-02	4,4'-DDE	METHANOL	5000
EC-000091-01-04	4,4'-DDE	METHANOL	5000
EC-000092-01-03	4,4'-DDD	METHANOL	5000
EC-000093-01-05	ALPHA-ENDOSULFAN	DIOXANE	1000
EC-000094-01-05	BETA-ENDOSULFAN	DIOXANE	1000
EC-000095-01-03	ENDOSULFAN SULFATE	DIOXANE	1000
EC-000096-01-03	ENDRIN	METHANOL	5000
EC-000097-01-02	ENDRIN ALDEHYDE	METHANOL	5000
EC-000098-01-05	HEPTACHLOR	METHANOL	5000
EC-000099-01-02	HEPTACHLOR EPOXIDE	METHANOL	5000
EC-000100-01-02	ALPHA-BHC	METHANOL	2500
EC-000102-01-04	GAMMA-BHC	METHANOL	5000
EC-000103-02-01	DELTA-BHC	METHANOL	1000
EC-000104-01-02	PCB-1242	METHANOL	5000
EC-000105-01-02	PCB-1254	METHANOL	5000
EC-000107-01-02	PCB-1232	METHANOL	5000
EC-000108-01-02	PCB-1248	METHANOL	5000
EC-000110-01-02	PCB-1016	METHANOL	5000
EC-000111-01-05	TOXAPHENE	METHANOL	5000
EC-000124-02-03	4,4'-DDT	METHANOL	5000
EC-000125-01-01	PCB-1016 (WEBB)	ISO-OCTANE	1000
EC-000126-01-01	PCB-1221	METHANOL	5000
EC-000126-01-03	PCB-1221	ISO-OCTANE	5000

SINGLE COMPONENT STANDARDS
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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000129-01-01	PCB-1260 (WEBB)	ISO-OCTANE	1000
EC-000129-01-02	PCB-1260	ISO-OCTANE	500
EC-000129-01-03	PCB-1260	ISO-OCTANE	1000
EC-000129-01-04	PCB-1260	ISO-OCTANE	3000
EC-000130-01-01	PCB-1262	METHANOL	5000
EC-000130-01-02	PCB-1262	ISO-OCTANE	5000
EC-000131-01-01	PCB-1268	ACETONE	2500
EC-000132-01-02	PCB-1242	ISO-OCTANE	500
EC-000132-01-03	PCB-1242	ISO-OCTANE	1000
EC-000132-01-04	PCB-1242	ISO-OCTANE	3000
EC-000135-01-01	PCB-1254 (WEBB)	ISO-OCTANE	1000
EC-000135-01-02	PCB-1254	ISO-OCTANE	500
EC-000135-01-03	PCB-1254	ISO-OCTANE	1000
EC-000135-01-04	PCB-1254	ISO-OCTANE	3000
EV-000136-01-03	BROMOCHLOROMETHANE	METHANOL	10000
EV-000149-01-01	2,4-DICHLOROTOLUENE	METHANOL	5000
EV-000149-01-02	2,4-DICHLOROTOLUENE	METHANOL	5000
EV-000150-01-01	O-CHLOROTOLUENE	METHANOL	5000
EV-000151-01-01	M-CHLOROTOLUENE	METHANOL	5000
EV-000152-01-01	P-CHLOROTOLUENE	METHANOL	5000
EV-000152-01-02	P-CHLOROTOLUENE	METHANOL	5000
EV-000153-01-01	4-CHLOROBENZOTRIFLUORIDE	METHANOL	5000
EV-000156-01-01	PENTACHLORONITROBENZENE	METHANOL	5000
EV-000168-01-01	ALPHA,ALPHA,2,6-TETRACHLOROTOLUENE	METHANOL	5000

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 Toxic and Hazardous Materials Repository (EMCL-CI)

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EV-000169-02-01	BENZYL CHLORIDE	CH3CN	5000
EV-000170-01-01	2,3-DICHLORO-1-PROPENE	METHANOL	10000
EV-000171-01-01	1,2-DIBROMOETHANE	METHANOL	10000
EV-000173-01-04	CIS-1,2-DICHLOROETHYLENE	METHANOL	10000
EV-000175-01-03	1,2,3-TRICHLOROBENZENE	METHANOL	5000
EV-000175-01-04	1,2,3-TRICHLOROBENZENE	METHANOL	5000
EV-000176-01-03	1,3,5-TRICHLOROBENZENE	METHANOL	5000
EV-000176-01-04	1,3,5-TRICHLOROBENZENE	METHANOL	5000
EV-000177-01-02	1,2,4,5-TETRACHLOROBENZENE	CH2CL2	2500
EV-000179-01-02	2,4,5-TRICHLOROPHENOL	METHANOL	5000
EV-000180-01-02	2,4,6-TRICHLOROANILINE	METHANOL	5000
EV-000182-01-03	3-CHLOROPHENOL	METHANOL	5000
EV-000183-01-03	4-CHLOROPHENOL	METHANOL	5000
EL-000188-01-02	PHENANTHRENE-D10	METHANOL	150
EL-000188-01-03	PHENANTHRENE-D10	METHANOL	150
EL-000189-01-01	PHENOL-D5	ACETONE	100
EL-000190-01-01	2,4-DIMETHYLPHENOL-3,5,6-D3	ACETONE	100
EL-000191-01-01	PENTACHLOROPHENOL-13C6	ACETONE	100
EL-000191-01-02	PENTACHLOROPHENOL-13C6	ACETONE	100
EL-000192-01-01	DIMETHYL PHTHALATE-D6	ACETONE	150
EC-000193-01-01	2-FLUOROPHENOL	ACETONE	100
EV-000193-04-03	2-FLUOROPHENOL	ACETONE	100
EC-000194-01-01	2-FLUOROBIPHENYL	ACETONE	100
EC-000194-01-02	2-FLUOROBIPHENYL	ACETONE	100

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000195-01-01	1-FLUORONAPHTHALENE	ACETONE	100
EL-000196-01-01	1,4-DICHLOROBUTANE-D8	METHANOL	150
EL-000197-01-01	2-BROMO-1-CHLOROPROPANE-D6	METHANOL	150
EL-000198-02-01	BROMOCHLOROMETHANE-D2	METHANOL	150
EL-000199-01-01	BENZO(G,H,I)PERYLENE-13C12	ACETONE	100
EV-000200-04-01	CHLORODIBROMOMETHANE	METHANOL	5000
EV-000201-01-02	O-XYLENE	METHANOL	5000
EV-000202-01-02	M-XYLENE	METHANOL	5000
EV-000203-01-01	P-XYLENE	METHANOL	5000
EV-000203-01-02	P-XYLENE	METHANOL	5000
EV-000212-02-02	BROMOFORM	METHANOL	10000
EC-000214-01-02	1,3-DICHLOROBENZENE	METHANOL	5000
EC-000218-01-01	1,3-DICHLOROPROPYLENE	METHANOL	10000
EC-000219-01-02	MIREX	ACETONE	1000
EC-000220-02-01	ALDRIN	METHANOL	5000
EC-000220-02-03	ALDRIN	METHANOL	5000
EC-000222-01-01	2,3,5-TRICHLOROPHENOL	METHANOL	5000
EC-000224-03-01	2,4-DIMETHYLPHENOL	METHANOL	5000
EC-000225-01-01	1,2,3,4-TETRACHLOROBENZENE	METHANOL	2500
EC-000231-01-02	DIBENZ(A,H)ANTHRACENE	DIOXANE	1000
EC-000231-01-03	DIBENZ(A,H)ANTHRACENE	DIOXANE	1000
EC-000232-01-03	FLUOROBENZENE	METHANOL	150
EC-000233-01-01	4-BROMOFLUOROBENZENE	METHANOL	150
EC-000234-01-01	4,4'-DIBROMOOCTAFLUOROBIPHENYL	ACETONE	100

SINGLE COMPONENT STANDARDS
Toxic and Hazardous Materials Repository (EMCL-CI)

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000234-01-02	4,4'-DIBROMOOCTAFLUOROBIPHENYL	ACETONE	100
EC-000236-01-01	N-DECANE	METHANOL	5000
EC-000237-01-01	N-UNDECANE	METHANOL	5000
EC-000238-01-04	N-DODECANE	METHANOL	5000
EC-000239-01-01	N-TRIDECANE	METHANOL	5000
EC-000240-01-01	N-TETRADECANE	METHANOL	5000
EC-000241-01-01	N-PENTADECANE	METHANOL	5000
EC-000242-01-01	N-HEPTADECANE	METHANOL	2500
EC-000244-01-03	N-NONADECAN	METHANOL	1000
EC-000246-01-02	N-TETRACOSANE	ACETONE	500
EC-000250-01-02	O-CRESOL	METHANOL	5000
EC-000251-01-01	M-CRESOL	METHANOL	5000
EC-000251-01-02	M-CRESOL	METHANOL	5000
EC-000252-01-01	P-CRESOL	METHANOL	5000
EC-000255-01-01	DIBUTYL ETHER	METHANOL	5000
EC-000257-01-03	STYRENE	METHANOL	5000
EC-000258-01-02	EPICHLOROHYDRIN	CH3CN	5000
EC-000260-01-01	PENTACHLOROBENZENE	METHANOL	2500
EC-000261-01-02	DIBENZOFURAN	METHANOL	5000
EC-000262-01-01	DIPHENYL ETHER	METHANOL	5000
EC-000263-01-01	DIPHENYLAMINE	METHANOL	5000
EC-000270-01-01	ACRYLAMIDE	METHANOL	10000
EC-000271-01-01	PYRIDINE	METHANOL	10000
EC-000282-01-01	DIISODECYL PHTHALATE	METHANOL	5000

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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EC-000284-01-05	ACETONE	METHANOL	5000
EC-000285-01-01	DIETHYL ETHER	METHANOL	4500
EC-000285-01-02	DIETHYL ETHER	METHANOL	5000
EC-000286-01-02	1,2-EPOXYBUTANE	CH3CN	5000
EV-000295-01-01	PHENACETIN	METHANOL	5000
EV-000298-01-01	N-NITROSOPYRROLIDINE	METHANOL	5000
EV-000299-01-01	2-FLUOROACETAMIDE	METHANOL	5000
EV-000302-01-01	2,6-DICHLOROPHENOL	METHANOL	5000
EV-000305-01-03	4-CHLOROANILINE (P-CHLOROANILINE)	METHANOL	5000
EC-000311-01-01	METHYL ETHYL KETONE	METHANOL	10000
EV-000322-01-01	4,4'-METHYLENE BIS(O-CHLOROANILINE) (MOCA)	METHANOL	5000
EV-000324-01-03	O-NITROANILINE (2-NITROANILINE)	METHANOL	5000
EV-000325-01-03	M-NITROANILINE (3-NITROANILINE)	METHANOL	5000
EV-000329-01-01	ETHYLENETHIOUREA	METHANOL	5000
EC-000330-02-01	2,4-DICHLOROPHENOXY ACETIC ACID	CH3CN	5000
EV-000334-01-01	N-NITROSODIETHYLAMINE	METHANOL	5000
EV-000335-02-01	1,1,1,2-TETRACHLOROETHANE	METHANOL	5000
EV-000338-01-01	PROPIONITRILE	METHANOL	5000
EV-000342-01-03	P-NITROANILINE (4-NITROANILINE)	METHANOL	5000
EV-000349-01-03	4-METHYL-2-PENTANONE	METHANOL	5000
EV-000360-01-02	CARBON TETRACHLORIDE	METHANOL	10000
EV-000360-01-03	CARBON TETRACHLORIDE	METHANOL	5000
EV-000363-01-03	CARBON DISULFIDE	METHANOL	5000
EV-000368-01-01	1,2,3-TRICHLOROPROPANE	METHANOL	5000

SINGLE COMPONENT STANDARDS
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NSI-ES CODE	COMPOUND NAME	SOLVENT	CONC (ug/mL)
EV-000455-01-01	DINOSEB (2,4-DINITRO-6-SEC-BUTYL PHENOL)	CH3CN	5000
EC-000470-01-01	HALOWAX-1099	METHANOL	5000
EC-000471-01-01	HALOWAX-1001	METHANOL	5000
EC-000472-01-01	HALOWAX-1000	METHANOL	5000
EV-000473-01-01	ACETONITRILE	2-PROPANOL	5000
EV-000480-01-01	P-DIOXANE	METHANOL	10000
EV-000542-01-03	ANILINE	METHANOL	5000
EC-000548-01-01	N,N-DIMETHYLFORMAMIDE	METHANOL	5000
EC-000552-02-01	SILVEX	CH3CN	5000
EC-000662-01-01	3-NITROPHENOL	METHANOL	5000
EC-000713-01-01	PICLORAM	CH3CN	1000
EC-000715-01-01	CARBOFURAN	METHANOL	5000
EL-000776-01-01	1,2-DICHLOROBENZENE-D4	METHANOL	150
EC-000952-01-01	P,P'-METHOXYCHLOR	METHANOL	5000
EC-000952-01-02	P,P'-METHOXYCHLOR	METHANOL	5000
EC-000954-04-01	ALDICARB	CH3CN	1000
EC-000993-01-01	1,2-DIBROMO-3-CHLOROPROPANE	METHANOL	5000
EC-000993-04-01	1,2-DIBROMO-3-CHLOROPROPANE	METHANOL	5000
EC-000995-02-01	ALDICARB SULFONE	CH3CN	1000
EC-000996-02-01	ALDICARB SULFOXIDE	CH3CN	1000
EC-001089-01-01	ALACHLOR	METHANOL	1000
EC-001097-01-01	DIBROMOMETHANE	METHANOL	5000

APPENDICES

APPENDIX A

TARGET COMPOUND LIST (TCL)
CONTRACT LABORATORY PROGRAM

When requesting TCL materials, please refer to Sections 1, 2, and 5 of this Index for information on solvents and concentrations as well as complete NSI-ES code numbers.

TARGET COMPOUND LIST

NSI-ES Code	Compound Name	TCL Number
<u>Volatiles</u>		
EC-000004	Benzene	24
EC-000006	Chlorobenzene	31
EC-000009	1,2-Dichloroethane	12
EC-000010	1,1,1-Trichloroethane	14
EC-000012	1,1-Dichloroethane	9
EC-000013	1,1,2-Trichloroethane	23
EC-000014	1,1,2,2-Trichloroethane	18
EC-000015	Chloroethane	4
EC-000017	2-Chloroethyl vinyl ether	-
EC-000021	Chloroform	11
EC-000027	1,1-Dichloroethene (1,1-Dichloroethylene)	8
EC-000028	<i>trans</i> -1,2-Dichloroethylene (<i>trans</i> -1,2-Dichloroethylene)	10
EC-000030	1,2-Dichloropropane	19
EC-000036	Ethyl benzene	32
EV-000042	Methylene chloride	5
EC-000043	Methyl chloride (Chloromethane)	1
EC-000044	Methyl bromide (Bromomethane)	2
EC-000046	Dichlorobromomethane (Bromodichloromethane)	17
EC-000083	Tetrachloroethene (Tetrachloroethylene)	29
EC-000084	Toluene	30
EC-000085	Trichloroethylene (Trichloroethene)	21
EC-000200	Chlorodibromoethane (Dibromochloroethane)	22
EC-000201	<i>o</i> -Xylene	34
EC-000202	<i>m</i> -Xylene	34

(continued)

TARGET COMPOUND LIST (Continued)

NSI-ES Code	Compound Name	TCL Number
<u>Volatiles (cont.)</u>		
EC-000203	<i>p</i> -Xylene	34
EC-000212	Bromoform	26
EC-000257	Styrene	33
EC-000284	Acetone	6
EC-000311	Methyl ethyl ketone (2-Butanone)	13
EV-000327	Vinyl acetate	16
EV-000336	2-Hexanone	27
EV-000349	4-Methyl-2-pentanone	28
EV-000360	Carbon tetrachloride	15
EV-000363	Carbon disulfide	7
EC-000536	Vinyl chloride	3
C-069-01	<i>cis/trans</i> -1,3-Dichloropropene	20, 25
<u>Semi-volatiles</u>		
EC-000001	Acenaphthene	69
EC-000007	1,2,4-Trichlorobenzene	54
EC-000008	Hexachlorobenzene	81
EC-000011	Hexachloroethane	46
EC-000016	<i>bis</i> (2-Chloroethyl) ether	36
EC-000018	2-Chloronaphthalene	63
EC-000019	2,4,6-Trichlorophenol	61
EC-000020	4-Chloro-3-methyl phenol (<i>p</i> -Chloro- <i>m</i> -cresol)	58
EC-000022	2-Chlorophenol	37
EC-000023	1,2-Dichlorobenzene	41
EC-000025	1,4-Dichlorobenzene	39
EC-000026	3,3'-Dichlorobenzidine-HCl	89
EC-000029	2,4-Dichlorophenol	53
EC-000033	2,4-Dinitrotoluene	73

(continued)

TARGET COMPOUND LIST (Continued)

NSI-ES Code	Compound Name	TCL Number
<u>Semi-volatiles (Cont.)</u>		
EC-000034	2,6-Dinitrotoluene	67
EC-000037	Fluoranthene	86
EC-000038	4-Chlorophenyl phenyl ether	75
EC-000039	4-Bromophenyl phenyl ether	80
EC-000040	<i>bis</i> (2-Chloroisopropyl) ether	43
EC-000041	<i>bis</i> (2-Chloroethoxy) methane	52
EC-000050	Hexachlorobutadiene	57
EC-000051	Hexachlorocyclopentadiene	60
EC-000052	Isophorone	48
EC-000053	Naphthalene	55
EC-000054	Nitrobenzene	47
EC-000055	2-Nitrophenol	49
EC-000056	4-Nitrophenol	71
EC-000057	2,4-Dinitrophenol	70
EC-000058	4,6-Dinitro-2-methyl phenol (4,6-Dinitro- <i>o</i> -cresol)	78
EC-000060	N-Nitrosodiphenylamine	79
EC-000061	N-Nitroso-di- <i>n</i> -propylamine	45
EC-000062	Pentachlorophenol	82
EC-000063	Phenol	35
EC-000064	<i>bis</i> (2-Ethylhexyl) phthalate	92
EC-000065	Butyl benzyl phthalate	88
EC-000066	Di- <i>n</i> -butyl phthalate	85
EC-000067	Di- <i>n</i> -octyl phthalate	93
EC-000068	Diethyl phthalate	74
EC-000069	Dimethyl phthalate	65
EC-000070	Benzo(<i>a</i>)anthracene	90
EC-000071	Benzo(<i>a</i>)pyrene	96
EC-000072	Benzo(<i>b</i>)fluoranthene	94

(continued)

TARGET COMPOUND LIST (Continued)

NSI-ES Code	Compound Name	TCL Number
<u>Semi-volatiles (Cont.)</u>		
EC-000073	Benzo(k)fluoranthene	95
EC-000074	Chrysene	91
EC-000075	Acenaphthalene	66
EC-000076	Anthracene	84
EC-000077	Benzo(g,h,i)perylene	99
EC-000078	Fluorene	76
EC-000079	Phenanthrene	83
EC-000081	Indeno(1,2,3-c,d)pyrene	97
EC-000082	Pyrene	87
EV-000179	2,4,5-Trichlorophenol	62
EC-000214	1,3-Dichlorobenzene	38
EC-000224	2,4-Dimethyl phenol	50
EC-000231	Dibenz(a,h)anthracene	98
EC-000250	2-Methyl phenol (o-Cresol)	42
EC-000252	4-Methyl phenol (p-Cresol)	44
EC-000261	Dibenzofuran	72
EV-000305	4-Chloroaniline	56
EV-000324	2-Nitroaniline	64
EV-000325	3-Nitroaniline	68
EV-000326	Benzyl alcohol	40
EV-000342	4-Nitroaniline	77
EV-000541	Benzoic acid	51
EV-000562	2-Methyl naphthalene	59
<u>Pesticides</u>		
EC-000088	Dieldrin	108
EC-000091	4-4'-DDE	109
EC-000092	4-4'-DDD	112
EC-000093	<i>alpha</i> -Endosulfan (Endosulfan I)	107

(continued)

TARGET COMPOUNDS LIST (Continued)

NSI-ES Code	Compound Name	TCL Number
<u>Pesticides (Cont.)</u>		
EC-000094	<i>beta</i> -Endosulfan (Endosulfan II)	111
EC-000095	Endosulfan sulfate	113
EC-000096	Endrin	110
EC-000097	Endrin aldehyde	-
EC-000098	Heptachlor	104
EC-000099	Heptachlor epoxide	106
EC-000100	<i>alpha</i> -BHC	100
EC-000101	<i>beta</i> -BHC	101
EC-000102	<i>gamma</i> -BHC	103
EC-000103	<i>delta</i> -BHC	102
EC-000104	Aroclor 1242	123
EC-000105	Aroclor 1254	125
EC-000107	Aroclor 1232	122
EC-000108	Aroclor 1248	124
EC-000109	Aroclor 1260	126
EC-000111	Toxaphene	119
EC-000124	4-4'-DDT	114
EC-000125	Aroclor 1016	120
EC-000126	Aroclor 1221	121
EC-000220	Aldrin	105
EV-000797	<i>gamma</i> -Chlordane	118
EV-000903	<i>alpha</i> -Chlordane	117
EC-000952	<i>p,p'</i> -Methoxychlor	116
EV-001036	Endrin ketone	115

APPENDIX B

ORGANICS PROTOCOL

When requesting Organics Protocol Standard Materials, please refer to Sections 1 and 5 of this Index for information on solvents and concentrations as well as complete NSI-ES code numbers.

ORGANICS PROTOCOL – STANDARD MATERIALS

NSI-ES Code	Compound Name
VOLATILES ANALYSIS	
<i>Internal Standards</i>	
EV-000136	Bromochloromethane
EV-000791	1,4-Difluorobenzene
ES-001021	Chlorobenzene-d ₅
<i>Surrogates</i>	
ES-000143	Toluene-d ₈
EV-000233	4-Bromofluorobenzene (<i>p</i> -Bromofluorobenzene)
ES-000876	1,2-Dichloroethane-d ₄
<i>Matrix Spikes</i>	
EC-000004	Benzene
EC-000006	Chlorobenzene
EC-000027	1,1-Dichloroethene (1,1-Dichloroethylene)
EC-000084	Toluene
EC-000085	Trichloroethene (Trichloroethylene)
SEMI-VOLATILES ANALYSIS	
<i>Internal Standards</i>	
ES-000140	Naphthalene-d ₈
ES-000229	Chrysene-d ₁₂
ES-000230	Phenanthrene-d ₁₀
ES-000467	Anthracene-d ₁₀
ES-000897	1,4-Dichlorobenzene-d ₄
ES-001009	Perylene-d ₁₂

(continued)

ORGANICS PROTOCOL – STANDARD MATERIALS (Continued)

NSI-ES Code	Compound Name
SEMI-VOLATILES ANALYSIS	
(Cont)	
<i>Surrogates</i>	
ES-000166	Nitrobenzene-d ₅
EV-000194	2-Fluorobiphenyl
ES-000531	Phenol-d ₅
EV-000875	2,4,6-Tribromophenol
ES-000909	p-Terphenyl-d ₁₄
<i>Matrix Spikes</i>	
EC-000001	Acenaphthene
EC-000007	1,2,4-Trichlorobenzene
EV-000020	4-Chloro-3-methyl phenol
EC-000022	2-Chlorophenol
EC-000025	1,4-Dichlorobenzene
EC-000056	4-Nitrophenol
EC-000061	N-Nitrosodi-n-propylamine
EC-000062	Pentachlorophenol
EC-000063	Phenol
EC-000066	Di-n-butyl phthalate
EC-000082	Pyrene
PESTICIDES ANALYSIS	
<i>Internal Standards</i>	
None	
<i>Surrogates</i>	
EV-000798	Dibutyl chlorendate

(continued)

ORGANICS PROTOCOL – STANDARD MATERIALS (Continued)

NSI-ES Code	Compound Name
PESTICIDES ANALYSIS	
(Cont.)	
<i>Matrix Spikes</i>	
EC-000088	Dieldrin
EC-000096	Endrin
EC-000098	Heptachlor
EC-000102	Lindane (<i>gamma</i> -BHC)
EC-000124	4-4'-DDT
EC-000220	Aldrin
TUNING COMPOUND	
EV-001010	DFTPP

APPENDIX C

COMPOUND SOURCE LIST

High purity reference materials are essential to the preparation of standards used in the analysis of environmental samples. These materials may be obtained from a number of different commercial sources.

This section contains a listing of several commercial vendors from whom each of the materials on the current Target Compound List may usually be obtained. This list is included here simply to provide a starting point for organizations needing to acquire these materials. It is not intended as an Agency recommendation or endorsement of any manufacturer or distributor, nor does it reflect any type of industry-wide survey. Utilization of alternate sources, as desired, is encouraged.

When requesting TCL materials from the QAMB, please refer to Sections 1, 2, and 5 of this Index for information on solvents and concentrations as well as complete NSI-ES code numbers.

TARGET COMPOUND LIST

NSI-ES Code	Compound Name	Source
<u>Volatiles</u>		
EC-000004	Benzene	CRE, ALH, ALF
EC-000006	Chlorobenzene	ALH, FLU, FIS
EC-000009	1,2-Dichloroethane	ALH, KNK
EC-000010	1,1,1-Trichloroethane	ALH, TRI, ALF
EC-000012	1,1-Dichloroethane	ALH, PNB, CTC
EC-000013	1,1,2-Trichloroethane	ALH, FLU, PNB
EC-000014	1,1,2,2-Trichloroethane	ALH, FLU, PNB
EC-000015	Chloroethane	CTC, PNB, MAT
EC-000017	2-Chloroethyl vinyl ether	ALH, PNB
EC-000021	Chloroform	CRE, ALH, FLU
EC-000027	1,1-Dichloroethene (1,1-Dichloroethylene)	ALH, CRE
EC-000028	<i>trans</i> -1,2-Dichloroethylene (<i>trans</i> -1,2-Dichloroethylene)	FLU, ALH, EKO
EC-000030	1,2-Dichloropropane	ALH, FLU, EKO
EC-000036	Ethyl benzene	ALH, FLU, PNB
EV-000042	Methylene chloride	CRE, ALH, ALF
EC-000043	Methyl chloride (Chloromethane)	MAT, PNB, FLU
EC-000044	Methyl bromide (Bromomethane)	CRE, MAT, PNB
EC-000046	Dichlorobromomethane (Bromodichloromethane)	FLU, ALH, ALF
EC-000083	Tetrachloroethene (Tetrachloroethylene)	CRE, ALH, EKO
EC-000084	Toluene	FLU, ALH, ALF
EC-000085	Trichloroethylene (Trichloroethene)	FLU, ALH, ALF
EC-000200	Chlorodibromoethane (Dibromochloroethane)	ALH, PNB
EC-000201	<i>o</i> -Xylene	ALF, ALH, FLU
EC-000202	<i>m</i> -Xylene	ALH, CRE, FLU
EC-000203	<i>p</i> -Xylene	ALH, CRE, FLU
EC-000212	Bromoform	ALH, ALF, KNK

(continued)

TARGET COMPOUND LIST (Continued)

NSI-ES Code	Compound Name	Sources
<u>Volatiles (cont.)</u>		
EC-000257	Styrene	ALH, ALF
EC-000284	Acetone	ALH, CRE, FIS
EC-000311	Methyl ethyl ketone (2-Butanone)	ALH, ALF, FLU
EV-000327	Vinyl acetate	ALH, FLU, FIS
EV-000336	2-Hexanone	CRE, FLU
EV-000349	4-Methyl-2-pentanone	ALH, PNB
EV-000360	Carbon tetrachloride	ALH, ALF, FIS
EV-000363	Carbon disulfide	ALH, ALF, FLU
EC-000536	Vinyl chloride	IGP, PPG, FLU
C-069-01	<i>cis/trans</i> -1,3-Dichloropropene	FLU, ALH (mixed isomers) CSI (isomers listed separately)
<u>Semi-volatiles</u>		
EC-000001	Acenaphthene	ALH, CRE, PNB
EC-000007	1,2,4-Trichlorobenzene	ALH, FLU, PNB
EC-000008	Hexachlorobenzene	ALH, CRE, FLU
EC-000011	Hexachloroethane	ALH, ALF, PNB
EC-000016	<i>bis</i> (2-Chloroethyl) ether	ALH, EKO, FIS
EC-000018	2-Chloronaphthalene	FLU, KNK, FIS
EC-000019	2,4,6-Trichlorophenol	ALH, FLU, PNB
EC-000020	4-Chloro-3-methyl phenol (<i>p</i> -Chloro- <i>m</i> -cresol)	ALH, CRE, CTC
EC-000022	2-Chlorophenol	CRE, ALH, FLU
EC-000023	1,2-Dichlorobenzene	ALH, CRE, KNK
EC-000025	1,4-Dichlorobenzene	ALH, CRE, FLU
EC-000026	3,3'-Dichlorobenzidine·HCl	SIG, CTC
EC-000029	2,4-Dichlorophenol	ALH, FLU, KNK
EC-000033	2,4-Dinitrotoluene	CRE, PNB, CTC

(continued)

TARGET COMPOUND LIST (Continued)

NSI-ES Code	Compound Name	Sources
<u>Semi-volatiles (Cont.)</u>		
EC-000034	2,6-Dinitrotoluene	ALH, CTC, LAN
EC-000037	Fluoranthene	ALH, PNB, KNK
EC-000038	4-Chlorophenyl phenyl ether	AUS, CSI
EC-000039	4-Bromophenyl phenyl ether	ALH, PNB, KNK
EC-000040	<i>bis</i> (2-Chloroisopropyl) ether	ULT (solution), SPL (custom order)
EC-000041	<i>bis</i> (2-Chloroethoxy) methane	KNK, PNB
EC-000050	Hexachlorobutadiene	KNK, CSI, SPL
EC-000051	Hexachlorocyclopentadiene	FLU, ALH, PNB
EC-000052	Isophorone	FLU, ALH, PNB
EC-000053	Naphthalene	FLU, ALH, ALF
EC-000054	Nitrobenzene	ALH, FLU, LAN
EC-000055	2-Nitrophenol	FLU, ALH, PNB
EC-000056	4-Nitrophenol	ALH, CRE, SIG
EC-000057	2,4-Dinitrophenol	FLU, ALH, ALF
EC-000058	4,6-Dinitro-2-methyl phenol (4,6-Dinitro- <i>o</i> -cresol)	FLU, ALH, PNB
EC-000060	N-Nitrosodiphenylamine	CRE, FLU, SIG
EC-000061	N-Nitroso-di- <i>n</i> -propylamine	ALF, CTC, FRF
EC-000062	Pentachlorophenol	ALH, FLU, CRE
EC-000063	Phenol	FLU, PNB, ALH
EC-000064	<i>bis</i> (2-Ethylhexyl) phthalate	ALH, FLU, CRE
EC-000065	Butyl benzyl phthalate	CTC, PNB, SPL
EC-000066	Di- <i>n</i> -butyl phthalate	ALH, FLU, CTC
EC-000067	Di- <i>n</i> -octyl phthalate	ALH, ALF, EAC
EC-000068	Diethyl phthalate	CTC, FLU, LAN
EC-000069	Dimethyl phthalate	ALH, FLU, CRE
EC-000070	Benzo(<i>a</i>)anthracene	ALH, EKO, PNB
EC-000071	Benzo(<i>a</i>)pyrene	CSL, CRE, SPL
EC-000072	Benzo(<i>b</i>)fluoranthene	AUS, SPL, ULT

(continued)

TARGET COMPOUND LIST (Continued)

NSI-ES Code	Compound Name	Sources
<u>Semi-volatiles (Cont.)</u>		
EC-000073	Benzo(k)fluoranthene	AUS, SPL, ULT
EC-000074	Chrysene	ALH, CTC, FLU
EC-000075	Acenaphthalene	ALF, CRE, FLU
EC-000076	Anthracene	ALH, CTC, PNB
EC-000077	Benzo(g,h,i)perylene	AUS, SPL, CSL
EC-000078	Fluorene	ALH, FLU, KNK
EC-000079	Phenanthrene	ALH, CRE, FLU
EC-000081	Indeno(1,2,3-c,d)pyrene	AUS, CTC, SPL
EC-000082	Pyrene	ALH, PNB, KNK
EV-000179	2,4,5-Trichlorophenol	FLU, CRE, ALH
EC-000214	1,3-Dichlorobenzene	ALH, CRE, FLU
EC-000224	2,4-Dimethyl phenol	ALH, EKO, FLU
EC-000231	Dibenz(a,h)anthracene	AUS, EKO, FLU
EC-000250	2-Methyl phenol (o-Cresol)	FIS, LAN, PNB
EC-000252	4-Methyl phenol (p-Cresol)	LAN, PNB
EC-000261	Dibenzofuran	ALH, FLU
EV-000305	4-Chloroaniline	ALH, FLU
EV-000324	2-Nitroaniline	ALH, CRE, FLU
EV-000325	3-Nitroaniline	ALH, CRE, FLU
EV-000326	Benzyl alcohol	ALH, ALF
EV-000342	4-Nitroaniline	ALH, CRE, FLU
EV-000541	Benzoic acid	ALH, ALF, FLU
EV-000562	2-Methyl naphthalene	ALU, ALH, KNK
<u>Pesticides</u>		
EC-000088	Dieldrin	ALH, CRE, FLU
EC-000091	4-4'-DDE	CRE, ALH, SPL
EC-000092	4-4'-DDD	ALH, CRE, SPL
EC-000093	<i>alpha</i> -Endosulfan (Endosulfan I)	CRE, SPL

(continued)

TARGET COMPOUNDS LIST (Continued)

NSI-ES Code	Compound Name	Sources
<u>Pesticides (Cont.)</u>		
EC-000094	<i>beta</i> -Endosulfan (Endosulfan II)	CRE, SPL, ULT
EC-000095	Endosulfan sulfate	CRE, SPL, ULT
EC-000096	Endrin	CRE, SPL, ULT
EC-000097	Endrin aldehyde	CSI, SPL, ULT
EC-000098	Heptachlor	SPL, ULT, AUS
EC-000099	Heptachlor epoxide	SPL, ULT, AUS
EC-000100	<i>alpha</i> -BHC	CRE, ULT (solution)
EC-000101	<i>beta</i> -BHC	CRE, ULT (solution)
EC-000102	<i>gamma</i> -BHC	CRE, ULT
EC-000103	<i>delta</i> -BHC	CRE, ULT (solution)
EC-000104	Aroclor 1242	SPL, AUS
EC-000105	Aroclor 1254	SPL, AUS
EC-000107	Aroclor 1232	SPL, AUS
EC-000108	Aroclor 1248	SPL, AUS
EC-000109	Aroclor 1260	SPL, AUS
EC-000111	Toxaphene	SPL, AUS
EC-000124	4-4'-DDT	CRE, ALD
EC-000125	Aroclor 1016	SPL, AUS
EC-000126	Aroclor 1221	SPL, AUS
EC-000220	Aldrin	ALH, CRE
EV-000797	<i>gamma</i> -Chlordane	PRC (solution)
EV-000903	<i>alpha</i> -Chlordane	PRC (solution)
EC-000952	Methoxychlor	ALH, CRE, SIG
EV-001036	Endrin ketone	QAMB (solution)

CLP ORGANICS PROTOCOL MATERIALS

When requesting Organics Protocol Materials from the QAMB please refer to Sections 1 and 5 of this Index for information on solvents and concentrations as well as complete NSI-ES code numbers.

ORGANICS PROTOCOL – STANDARD MATERIALS

NSI-ES Code	Compound Name	Sources
VOLATILES ANALYSIS		
<i>Internal Standards</i>		
EV-000136	Bromochloromethane	ALH, CRE, FLU
EV-000791	1,4-Difluorobenzene	ALH, FLU, SIG
ES-001021	Chlorobenzene-d ₅	CIL, MSD, ALH
<i>Surrogates</i>		
ES-000143	Toluene-d ₈	CIL, ICR, MSD
EV-000233	4-Bromofluorobenzene (<i>p</i> -Bromofluorobenzene)	ALH, FLU, KNK
ES-000876	1,2-Dichloroethane-d ₄	CIL, MSD, SPL
SEMI-VOLATILES ANALYSIS		
<i>Internal Standards</i>		
ES-000140	Naphthalene-d ₈	CIL, MSD, ICR
ES-000229	Chrysene-d ₁₂	CIL, MSD, SPL
ES-000230	Phenanthrene-d ₁₀	CIL, MSD, CLB
ES-000467	Anthracene-d ₁₀	CIL, MSD, ALH
ES-000897	1,4-Dichlorobenzene-d ₄	CIL, MSD, SPL
ES-001009	Perylene-d ₁₂	CIL, MSD, SPL
<i>Surrogates</i>		
ES-000166	Nitrobenzene-d ₅	ALH, CRE, FLU
EV-000194	2-Fluorobiphenyl	ALH, CLB, CRE
ES-000531	Phenol-d ₅	CIL, MSD, SPL
EV-000875	2,4,6-Tribromophenol	ALH, CRE, LAN
ES-000909	<i>p</i> -Terphenyl-d ₁₄	MSD, CIL, SPL

(continued)

ORGANICS PROTOCOL – STANDARD MATERIALS (Continued)

NSI-ES Code	Compound Name	Sources
PESTICIDES ANALYSIS		
<i>Internal Standards</i>		
None		
<i>Surrogates</i>		
EV-000798	Dibutyl chlorendate	QAMB
TUNING COMPOUND		
EV-001010	DFTPP	ALF, SCM, SPL

KEY TO SOURCE LIST

Source Code	Source Name
ALF	Alfa Research Chemicals and Materials 152 Andover Street Danvers, MA 01923 1-800-343-0660
ALH	Aldrich Chemical Company 940 W. St. Paul Avenue Milwaukee, WI 53233 1-800-558-9160 (outside WI) 1-800-222-9160 (inside WI)
AUS	Accu-standard, Inc. 25 Science Park, Suite 687 New Haven, CT 06511 203-786-5290
CIL	Cambridge Isotope Laboratories, Inc. 20 Commerce Way Woburn, MA 01801 1-800-322-1174
CLB	Columbia Organic Chemical Co., Inc. P.O. Box 1045 Camden, SC 29020 803-425-1786
CRE	Crescent Chemical Company, Inc. 1324 Motor Parkway Hauppauge, NY 11788 516-348-0333
CSI	Chem Service, Inc. P.O. Box 3180 West Chester, PA 19381-3108 215-692-3026
CSL	Chemsyn Science Laboratories 13605 W. 96th Terrace Lenexa, KS 66215-1297 1-800-233-6643
CTC	CTC Organics P.O. Box 6933 Atlanta, GA 30315 404-524-6744
EKO	Kodak Laboratory and Specialty Chemicals Eastman Kodak Company Rochester, NY 14650 1-800-225-5352 716-458-4014 (NY residents)

KEY TO SOURCE LIST

Source Code	Source Name
FIS	Fisher Scientific Company 711 Forbes Avenue Pittsburgh, PA 15219 412-562-8300
FLU	Fluka Chemical Company 990 Second Streed Ronkonkoma, NY 11779 516-273-0110
FRF	Fairfield Chemical Company P.O. Box 20 Blythewood, SC 29016 1-800-845-2715
ICR	ICN Radiochemicals Division of ICN Biomedicals P.O. Box 19536 Irvine, CA 92714 1-800-854-0530
ICP	Alphagaz Division Liquid Air Corporation 1 Embarcadero Center San Francisco, CA 94111 415-765-4581
KNK	K&K Laboratories Division of ICN Biomedicals 121 Express Street Plainview, NY 11803 516-433-6262
LAN	Lancaster Synthesis Ltd. P.O. Box 1000, Industrial Drive Windham, NJ 03087 1-800-238-2324
MAT	Matheson Gas Products P.O. Box 85 East Rutherford, NJ 07073 201-933-2400
MSD	Merck & Co., Inc./Isotope Division 4545 Oleatha Avnue St. Louis, MO 63116 314-353-7000
PNB	Pfaltz & Bauer, Inc. Division of Aceto Chemical Co. 172 East Aurora Street Waterbury, CT 06709 203-574-0075

KEY TO SOURCE LIST

Source Code	Source Name
PPG	PPG Industries, Inc. Chemicals Group One PPG Place Pittsburgh, PA 15272 1-800-243-6774
PRC	Promochem GmbH P.O. Box 1246 4230 Wesel 1 West Germany International + 49281 250 57
QAMB	U.S. EPA Quality Assurance Materials Bank % Northrop Services, Inc. - Environmental Sciences P.O. Box 12313, 2 Triangle Drive Research Triangle Park, NC 27709
SCM	SCM Specialty Chemicals P.O. Box 1466 Gainesville, FL 32602 1-800-331-6313
SIG	Sigma Chemical Company P.O. Box 14508 St. Louis, MO 63178 1-800-325-3010
SPL	Supelco, Inc. Supelco Park Bellefonte, PA 16823-0048 814-359-3441
ULT	Ultra Scientific, Inc. 1 Main Street Hope, RI 02831 401-828-9400