

**NOTE BY THE DIRECTOR-GENERAL****LISTS OF NEW VALIDATED DATA OF SCHEDULED CHEMICALS FOR APPROVAL
BY THE EXECUTIVE COUNCIL FOR INCLUSION IN THE OPCW
CENTRAL ANALYTICAL DATABASE**

1. In accordance with a decision by the Executive Council (hereinafter “the Council”) at its Fourth Session (EC-IV/DEC.2, dated 5 September 1997), “Proposed Mechanism for Updating the OPCW Central Analytical Database”, which was subsequently adopted by the Conference of the States Parties at its Second Session (subparagraph 11.2(c) of C-II/8, dated 5 December 1997), the Director-General established a Validation Group (hereinafter “the Group”) to evaluate new data to be proposed for inclusion in that database. The Group met for the forty-first time on 24 and 25 March 2015; for the forty-second time on 2 and 3 September 2015; and for the forty-third time on 30 and 31 March 2016, and submitted lists of validated analytical data to the Director-General for appropriate action.
2. In accordance with the aforementioned mechanism, lists of new validated data proposed for inclusion will be submitted to the members of the Council and distributed to all States Parties no later than 30 days before the opening of the Eighty-Second Session, during which the Council will be requested to consider the data. The Technical Secretariat (hereinafter “the Secretariat”) hereby submits to the members of the Council and distributes to all States Parties, in the annex to this Note, lists of new validated analytical data proposed for inclusion in the OPCW Central Analytical Database (OCAD).
3. The Verification Division will, upon request, make available to States Parties copies of the new validated infrared spectroscopy (IR) and mass spectrometry (MS) and gas chromatography (retention index) (GC(RI)) data listed in the annex. In accordance with the mechanism referred to in paragraph 1 above, any State Party that has concerns about the proposed inclusion in the OCAD of any of this data should make them known to the Secretariat before the Eighty-Second Session of the Council.

Annex (English only): Lists of New Validated Data of Scheduled Chemicals



Annex

LISTS OF NEW VALIDATED DATA OF SCHEDULED CHEMICALS

TABLE 1: LIST OF APPROVED IR DATA OF SCHEDULED CHEMICALS

OPCW Code	Chemical Name	Schedule
04-1-0349v	Cyclopentyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-1-0351v	2-Methylcyclohexyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-1-0352v	Cycloheptyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-1-0353v	Cyclooctyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-1-0344rv	2-Ethylhexyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-1-0345rv	Nonyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-1-0346rv	1-Methyloctyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-1-0347rv	Decyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-1-0348rv	1-Methylnonyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-1-0356v	3,5-Dimethylcyclohexyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-1-0357v	4-tert-Butylcyclohexyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03

TABLE 2: LIST OF APPROVED MS DATA OF SCHEDULED CHEMICALS

OPCW Code	Chemical Name	Schedule
04-2-0557	Cyclopentyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-2-0558	Cyclohexyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-2-0559	2-Methylcyclohexyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-2-0560	Cycloheptyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-2-0561	Cyclooctyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
07-2-3337	2-Dimethylaminoethyl methylphosphonofluoridate	2.B.04
07-2-3338	2-Dimethylaminoethyl ethylphosphonofluoridate	2.B.04
07-2-3339	2-Dimethylaminoethyl propylphosphonofluoridate	2.B.04
07-2-3340	2-Dimethylaminoethyl isopropylphosphonofluoridate	2.B.04
07-2-3341	2-Diethylaminoethyl methylphosphonofluoridate	2.B.04
07-2-3343	2-Diethylaminoethyl propylphosphonofluoridate	2.B.04
07-2-3344	2-Diethylaminoethyl isopropylphosphonofluoridate	2.B.04

OPCW Code	Chemical Name	Schedule
07-2-3345	2-Dipropylaminoethyl methylphosphonofluoridate	2.B.04
07-2-3346	2-Dipropylaminoethyl ethylphosphonofluoridate	2.B.04
07-2-3347	2-Dipropylaminoethyl propylphosphonofluoridate	2.B.04
07-2-3348	2-Dipropylaminoethyl isopropylphosphonofluoridate	2.B.04
07-2-3349	2-Diisopropylaminoethyl methylphosphonofluoridate	2.B.04
07-2-3350	2-Diisopropylaminoethyl ethylphosphonofluoridate	2.B.04
07-2-3351	2-Diisopropylaminoethyl propylphosphonofluoridate	2.B.04
07-2-3352	2-Diisopropylaminoethyl isopropylphosphonofluoridate	2.B.04
07-2-3353	O-2-Dimethylaminoethyl methylphosphonothionofluoridate	2.B.04
07-2-3354	O-2-Dimethylaminoethyl ethylphosphonothionofluoridate	2.B.04
07-2-3355	O-2-Dimethylaminoethyl propylphosphonothionofluoridate	2.B.04
07-2-3356	O-2-Dimethylaminoethyl isopropylphosphonothionofluoridate	2.B.04
07-2-3357	O-2-Diethylaminoethyl methylphosphonothionofluoridate	2.B.04
07-2-3358	O-2-Diethylaminoethyl ethylphosphonothionofluoridate	2.B.04
07-2-3359	O-2-Diethylaminoethyl propylphosphonothionofluoridate	2.B.04
07-2-3360	O-2-Diethylaminoethyl isopropylphosphonothionofluoridate	2.B.04
07-2-3361	S-2-Dimethylaminoethyl isopropylphosphonothiolofluoridate	2.B.04
07-2-3362	S-2-Diethylaminoethyl isopropylphosphonothiolofluoridate	2.B.04
07-2-3363	S-2-Diisopropylaminoethyl ethylphosphonothiolofluoridate	2.B.04
07-2-3364	S-2-Diisopropylaminoethyl propylphosphonothiolofluoridate	2.B.04
07-2-3365	S-2-Diisopropylaminoethyl isopropylphosphonothiolofluoridate	2.B.04
07-2-3366	S-2-Dimethylaminoethyl methylphosphonothiolothionofluoridate	2.B.04
07-2-3367	S-2-Dimethylaminoethyl ethylphosphonothiolothionofluoridate	2.B.04
07-2-3368	S-2-Dimethylaminoethyl propylphosphonothiolothionofluoridate	2.B.04
07-2-3369	S-2-Dimethylaminoethyl isopropylphosphonothiolothionofluoridate	2.B.04
07-2-3370	S-2-Diethylaminoethyl methylphosphonothiolothionofluoridate	2.B.04
07-2-3371	S-2-Diethylaminoethyl ethylphosphonothiolothionofluoridate	2.B.04
07-2-3372	S-2-Diethylaminoethyl propylphosphonothiolothionofluoridate	2.B.04
07-2-3373	S-2-Diethylaminoethyl isopropylphosphonothiolothionofluoridate	2.B.04
07-2-3374	S-2-Dipropylaminoethyl methylphosphonothiolothionofluoridate	2.B.04

OPCW Code	Chemical Name	Schedule
07-2-3375	S-2-Dipropylaminoethyl ethylphosphonothiolothionofluoridate	2.B.04
07-2-3376	S-2-Dipropylaminoethyl propylphosphonothiolothionofluoridate	2.B.04
07-2-3377	S-2-Dipropylaminoethyl isopropylphosphonothiolothionofluoridate	2.B.04
07-2-3378	S-2-Diisopropylaminoethyl methylphosphonothiolothionofluoridate	2.B.04
07-2-3379	S-2-Diisopropylaminoethyl ethylphosphonothiolothionofluoridate	2.B.04
07-2-3380	S-2-Diisopropylaminoethyl propylphosphonothiolothionofluoridate	2.B.04
07-2-3381	S-2-Diisopropylaminoethyl isopropylphosphonothiolothionofluoridate	2.B.04
28-2-0039r	Methyl N,N-dimethyl-P-methylphosphonamidate	2.B.04
28-2-0111r	O-Allyl N,N-dimethyl-P-methylphosphonamidothionate	2.B.04
28-2-0120r	N,N,N',N' -Tetramethyl-P-methylphosphonothionic diamide	2.B.04
28-2-0142br	O-sec-Butyl S-propyl P,P' -dimethyldiphosphonodithiono-P'-thiolate	2.B.04
28-2-0155r	Diheptyl dimethylpyrophosphonate	2.B.04
28-2-0161r	O-Methyl-d3 N,N-dimethyl-P-ethylphosphonamidothionate	2.B.04
28-2-0166ar	O-Methyl N,N-dimethyl-P,P' -diethyldiphosphonodithiono-P-amidate	2.B.04
28-2-0167br	O-Ethyl N,N-dimethyl-P,P' -diethyldiphosphonodithiono-P-amidate	2.B.04
04-2-0552r	2-Ethylhexyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-2-0553r	Nonyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-2-0554r	1-Methyloctyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-2-0555r	Decyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-2-0556r	1-Methylnonyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
07-2-3382	Methyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3383	Methyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3384	Methyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3385	Methyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3386	Methyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03
07-2-3387	Methyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03

OPCW Code	Chemical Name	Schedule
07-2-3388	Ethyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3389	Ethyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3390	Ethyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3391	Ethyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3392	Ethyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03
07-2-3393	Ethyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3394	Propyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3395	Propyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3396	Propyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3397	Propyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3398	Propyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03
07-2-3399	Propyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3400	Isopropyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3401	Isopropyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3402	Isopropyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3403	Isopropyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3404	Isopropyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03
07-2-3405	Isopropyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3406	Butyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3407	Butyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3408	Butyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3409	Butyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3410	Butyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03

OPCW Code	Chemical Name	Schedule
07-2-3411	Butyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3412a	sec-Butyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3412b	sec-Butyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3413a	sec-Butyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3413b	sec-Butyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3414a	sec-Butyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3414b	sec-Butyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3415a	sec-Butyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3415b	sec-Butyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3416a	sec-Butyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03
07-2-3416b	sec-Butyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03
07-2-3417a	sec-Butyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3417b	sec-Butyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3418	Isobutyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3419	Isobutyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3420	Isobutyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3421	Isobutyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3422	Isobutyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03
07-2-3423	Isobutyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3424	Cyclohexyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3425	Cyclohexyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3426	Cyclohexyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3427	Cyclohexyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03

OPCW Code	Chemical Name	Schedule
07-2-3429	Cyclohexyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3430a	Pinacolyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3430b	Pinacolyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3431b	Pinacolyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3432a	Pinacolyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3432b	Pinacolyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03
07-2-3433a	Pinacolyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3433b	Pinacolyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3434a	Pinacolyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03
07-2-3434b	Pinacolyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03
07-2-3435a	Pinacolyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
07-2-3435b	Pinacolyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03
16-2-0238	Ethyl 2-methoxy-1-methylethyl isopropylphosphonate	2.B.04
16-2-0239a	Isopropyl 2-methoxy-1-methylethyl isopropylphosphonate	2.B.04
16-2-0239b	Isopropyl 2-methoxy-1-methylethyl isopropylphosphonate	2.B.04
16-2-0240a	2-Methoxy-1-methylethyl propyl isopropylphosphonate	2.B.04
16-2-0240b	2-Methoxy-1-methylethyl propyl isopropylphosphonate	2.B.04
16-2-0241a	Butyl 2-methoxy-1-methylethyl isopropylphosphonate	2.B.04
16-2-0241b	Butyl 2-methoxy-1-methylethyl isopropylphosphonate	2.B.04
16-2-0243b	Bis(1,2-dimethylpropyl) isopropylphosphonate	2.B.04
16-2-0244	1-Ethylpropyl isopropyl isopropylphosphonate	2.B.04
16-2-0245	1-Ethylpropyl propyl isopropylphosphonate	2.B.04
16-2-0246	3-Methylbutyl propyl isopropylphosphonate	2.B.04
16-2-0248a	1,2-Dimethylpropyl propyl isopropylphosphonate	2.B.04
16-2-0248b	1,2-Dimethylpropyl propyl isopropylphosphonate	2.B.04
16-2-0250	2-Ethoxy-1-methylethyl ethyl isopropylphosphonate	2.B.04
16-2-0251	2-Ethoxy-1-methylethyl isopropyl isopropylphosphonate	2.B.04
16-2-0252	2-Ethoxy-1-methylethyl propyl isopropylphosphonate	2.B.04
16-2-0253a	Bis(2-ethoxy-1-methylethyl) isopropylphosphonate	2.B.04
16-2-0253b	Bis(2-ethoxy-1-methylethyl) isopropylphosphonate	2.B.04
16-2-0254	2-Isopropoxyethyl methyl isopropylphosphonate	2.B.04
16-2-0255	Ethyl 2-isopropoxyethyl isopropylphosphonate	2.B.04
16-2-0256	2-Isopropoxyethyl isopropyl isopropylphosphonate	2.B.04
16-2-0257	2-Isopropoxyethyl propyl isopropylphosphonate	2.B.04

OPCW Code	Chemical Name	Schedule
16-2-0258	Bis(2-isopropoxyethyl) isopropylphosphonate	2.B.04
16-2-0259	2-Methoxy-1-methylethyl propyl propylphosphonate	2.B.04
16-2-0260	Isopropyl 2-methoxy-1-methylethyl propylphosphonate	2.B.04
16-2-0261a	1,2-Dimethylpropyl 2-methoxyethyl methylphosphonate	2.B.04
16-2-0261b	1,2-Dimethylpropyl 2-methoxyethyl methylphosphonate	2.B.04
16-2-0262a	1,2-Dimethylpropyl 2-methoxyethyl ethylphosphonate	2.B.04
16-2-0262b	1,2-Dimethylpropyl 2-methoxyethyl ethylphosphonate	2.B.04
16-2-0263	Cyclopentyl 2-methoxy-1-methylethyl methylphosphonate	2.B.04
16-2-0264	2,2-Dimethylpropyl isopropyl methylphosphonate	2.B.04
16-2-0265	2,2-Dimethylpropyl isopropyl ethylphosphonate	2.B.04
16-2-0266	2,2-Dimethylpropyl isopropyl isopropylphosphonate	2.B.04
16-2-0267	2,2-Dimethylpropyl isopropyl propylphosphonate	2.B.04
16-2-0270	2,2-Dimethylpropyl propyl isopropylphosphonate	2.B.04
16-2-0271	2,2-Dimethylpropyl propyl propylphosphonate	2.B.04
16-2-0272a	Bis(2-methoxy-1-methylethyl) isopropylphosphonate	2.B.04
16-2-0272b	Bis(2-methoxy-1-methylethyl) isopropylphosphonate	2.B.04
16-2-0272c	Bis(2-methoxy-1-methylethyl) isopropylphosphonate	2.B.04
16-2-0274a	Butyl 1-ethyl-2-methylpropyl methylphosphonate	2.B.04
16-2-0274b	Butyl 1-ethyl-2-methylpropyl methylphosphonate	2.B.04
16-2-0275a	Butyl 1-ethyl-2-methylpropyl ethylphosphonate	2.B.04
16-2-0275b	Butyl 1-ethyl-2-methylpropyl ethylphosphonate	2.B.04
16-2-0276a	Butyl 1-ethyl-2-methylpropyl isopropylphosphonate	2.B.04
16-2-0277a	Butyl 1-ethyl-2-methylpropyl propylphosphonate	2.B.04
16-2-0277b	Butyl 1-ethyl-2-methylpropyl propylphosphonate	2.B.04
04-2-0565	4-tert-Butylcyclohexyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-2-0566	1-Ethylpropyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
04-2-0567	1,1,2-Trimethylpropyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03
07-2-3436	Methyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3437	Methyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3438	Methyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3439	Methyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3440	Methyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3441	Methyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3442	Ethyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3443	Ethyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03

OPCW Code	Chemical Name	Schedule
07-2-3444	Ethyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3445	Ethyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3446	Ethyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3447	Ethyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3448	Propyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3449	Propyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3450	Propyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3451	Propyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3452	Propyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3453	Propyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3454	Isopropyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3455	Isopropyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3456	Isopropyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3457	Isopropyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3458	Isopropyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3459	Isopropyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3460	Butyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3461	Butyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3462	Butyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3463	Butyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3464	Butyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3465	Butyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3466a	sec-Butyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03

OPCW Code	Chemical Name	Schedule
07-2-3466b	sec-Butyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3467a	sec-Butyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3467b	sec-Butyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3468a	sec-Butyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3468b	sec-Butyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3469a	sec-Butyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3470a	sec-Butyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3470b	sec-Butyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3472	Isobutyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3473	Isobutyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3474	Isobutyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3475	Isobutyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3476	Isobutyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3477	Isobutyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3478	Cyclohexyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3479	Cyclohexyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3480	Cyclohexyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3481	Cyclohexyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3482	Cyclohexyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3483	Cyclohexyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3484a	Pinacolyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3484b	Pinacolyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3485a	Pinacolyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03

OPCW Code	Chemical Name	Schedule
07-2-3485b	Pinacolyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3486a	Pinacolyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3486b	Pinacolyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3487a	Pinacolyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3487b	Pinacolyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3488b	Pinacolyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3489a	Pinacolyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
07-2-3489b	Pinacolyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03
16-2-0228r	Ethyl 2-isopropoxyethyl propylphosphonate	2.B.04
28-2-0110ar	1-Methylbutyl N,N-dimethyl-P-methylphosphonamidothionate	2.B.04
28-2-0177	Chloro(ethylthio)methylphosphine	2.B.04
28-2-0178	Chloro(isopropylthio)methylphosphine	2.B.04
28-2-0179	Chloro(propylthio)methylphosphine	2.B.04
28-2-0182	Butylthio(chloro)methylphosphine	2.B.04
28-2-0183	Chloro(pentylthio)methylphosphine	2.B.04
28-2-0184	Chloro(hexylthio)methylphosphine	2.B.04
28-2-0185	Bis(ethylthio)methylphosphine	2.B.04
28-2-0186	Bis(ethylthio)methyl-d3-phosphine	2.B.04
28-2-0187	Bis(propylthio)methylphosphine	2.B.04
28-2-0189	Bis(isopropylthio)methylphosphine	2.B.04
28-2-0190	Bis(sec-butylthio)methylphosphine	2.B.04
28-2-0191	Bis(sec-butylthio)methyl-d3-phosphine	2.B.04
28-2-0192	Bis(pentylthio)methylphosphine	2.B.04
28-2-0193	Bis(hexylthio)methylphosphine	2.B.04
28-2-0194	Ethylthio(propylthio)methylphosphine	2.B.04
28-2-0195	sec-Butylthio(ethylthio)methylphosphine	2.B.04
28-2-0196	sec-Butylthio(ethylthio)methyl-d3-phosphine	2.B.04
28-2-0197	Ethylthio(pentylthio)methylphosphine	2.B.04
28-2-0198	Ethylthio(pentylthio)methyl-d3-phosphine	2.B.04
28-2-0199	sec-Butylthio(propylthio)methylphosphine	2.B.04
28-2-0200	sec-Butylthio(propylthio)methyl-d3-phosphine	2.B.04
28-2-0201	Pentylthio(propylthio)methylphosphine	2.B.04

TABLE 3: LIST OF APPROVED GC(RI) DATA

Note: A “1” under the “Column” heading of GC(RI) data means an HP5 or an SE54 column and a “2” means a DB-5MS column.

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	RI(c)
07-4-3200	2-Dimethylaminoethyl methylphosphonofluoridate	2.B.04	2	1044		
07-4-3201	2-Dimethylaminoethyl ethylphosphonofluoridate	2.B.04	2	1137		
07-4-3202	2-Dimethylaminoethyl propylphosphonofluoridate	2.B.04	2	1222		
07-4-3203	2-Dimethylaminoethyl isopropylphosphonofluoridate	2.B.04	2	1189		
07-4-3204	2-Diethylaminoethyl methylphosphonofluoridate	2.B.04	2	1200		
07-4-3205	2-Diethylaminoethyl ethylphosphonofluoridate	2.B.04	2	1295		
07-4-3206	2-Diethylaminoethyl propylphosphonofluoridate	2.B.04	2	1379		
07-4-3207	2-Diethylaminoethyl isopropylphosphonofluoridate	2.B.04	2	1347		
07-4-3208	2-Dipropylaminoethyl methylphosphonofluoridate	2.B.04	2	1358		
07-4-3209	2-Dipropylaminoethyl ethylphosphonofluoridate	2.B.04	2	1451		
07-4-3210	2-Dipropylaminoethyl propylphosphonofluoridate	2.B.04	2	1534		
07-4-3211	2-Dipropylaminoethyl isopropylphosphonofluoridate	2.B.04	2	1500		
07-4-3212	2-Diisopropylaminoethyl methylphosphonofluoridate	2.B.04	2	1334		
07-4-3213	2-Diisopropylaminoethyl ethylphosphonofluoridate	2.B.04	2	1427		
07-4-3214	2-Diisopropylaminoethyl propylphosphonofluoridate	2.B.04	2	1511		
07-4-3215	2-Diisopropylaminoethyl isopropylphosphonofluoridate	2.B.04	2	1476		
07-4-3216	O-2-Dimethylaminoethyl methylphosphonothionofluoridate	2.B.04	2	1101		
07-4-3217	O-2-Dimethylaminoethyl ethylphosphonothionofluoridate	2.B.04	2	1193		
07-4-3218	O-2-Dimethylaminoethyl propylphosphonothionofluoridate	2.B.04	2	1278		
07-4-3219	O-2-Dimethylaminoethyl isopropylphosphonothionofluoridate	2.B.04	2	1247		
07-4-3220	O-2-Diethylaminoethyl methylphosphonothionofluoridate	2.B.04	2	1254		
07-4-3221	O-2-Diethylaminoethyl ethylphosphonothionofluoridate	2.B.04	2	1346		
07-4-3222	O-2-Diethylaminoethyl propylphosphonothionofluoridate	2.B.04	2	1430		
07-4-3223	O-2-Diethylaminoethyl isopropylphosphonothionofluoridate	2.B.04	2	1400		
07-4-3224	S-2-Dimethylaminoethyl isopropylphosphonothiolofluoridate	2.B.04	2	1368		
07-4-3225	S-2-Diethylaminoethyl isopropylphosphonothiolofluoridate	2.B.04	2	1517		
07-4-3226	S-2-Diisopropylaminoethyl ethylphosphonothiolofluoridate	2.B.04	2	1587		
07-4-3227	S-2-Diisopropylaminoethyl propylphosphonothiolofluoridate	2.B.04	2	1671		

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	RI(c)
07-4-3228	S-2-Diisopropylaminoethyl isopropylphosphonothiofluoridate	2.B.04	2	1640		
07-4-3229	S-2-Dimethylaminoethyl methylphosphonothiothionofluoridate	2.B.04	2	1303		
07-4-3230	S-2-Dimethylaminoethyl ethylphosphonothiothionofluoridate	2.B.04	2	1399		
07-4-3231	S-2-Dimethylaminoethyl propylphosphonothiothionofluoridate	2.B.04	2	1486		
07-4-3232	S-2-Dimethylaminoethyl isopropylphosphonothiothionofluoridate	2.B.04	2	1460		
07-4-3233	S-2-Diethylaminoethyl methylphosphonothiothionofluoridate	2.B.04	2	1457		
07-4-3234	S-2-Diethylaminoethyl ethylphosphonothiothionofluoridate	2.B.04	2	1552		
07-4-3235	S-2-Diethylaminoethyl propylphosphonothiothionofluoridate	2.B.04	2	1638		
07-4-3236	S-2-Diethylaminoethyl isopropylphosphonothiothionofluoridate	2.B.04	2	1612		
07-4-3237	S-2-Dipropylaminoethyl methylphosphonothiothionofluoridate	2.B.04	2	1610		
07-4-3238	S-2-Dipropylaminoethyl ethylphosphonothiothionofluoridate	2.B.04	2	1704		
07-4-3239	S-2-Dipropylaminoethyl propylphosphonothiothionofluoridate	2.B.04	2	1787		
07-4-3240	S-2-Dipropylaminoethyl isopropylphosphonothiothionofluoridate	2.B.04	2	1764		
07-4-3241	S-2-Diisopropylaminoethyl methylphosphonothiothionofluoridate	2.B.04	2	1584		
07-4-3242	S-2-Diisopropylaminoethyl ethylphosphonothiothionofluoridate	2.B.04	2	1681		
07-4-3243	S-2-Diisopropylaminoethyl propylphosphonothiothionofluoridate	2.B.04	2	1766		
07-4-3244	S-2-Diisopropylaminoethyl isopropylphosphonothiothionofluoridate	2.B.04	2	1740		
28-4-0042r	Methyl N,N-dimethyl-P-methylphosphonamidate	2.B.04	1	1037		

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	RI(c)
28-4-0107r	O-Ethyl-d5 N,N-dimethyl-P-methylphosphonamidothionate	2.B.04	1	1155		
28-4-0114r	O-Allyl N,N-dimethyl-P-methylphosphonamidothionate	2.B.04	1	1249		
28-4-0123r	N,N,N',N'-Tetramethyl-P-methylphosphonothionic diamide	2.B.04	1	1270		
28-4-0164r	O-Methyl-d3 N,N-dimethyl-P-ethylphosphonamidothionate	2.B.04	1	1173		
28-4-0166r	O-Ethyl-d5 N,N-dimethyl-P-ethylphosphonamidothionate	2.B.04	1	1234		
04-4-0361r	2-Ethylhexyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03	1	2175		
04-4-0362r	Nonyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03	1	2372		
04-4-0363r	1-Methyloctyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03	1	2245		
04-4-0364r	Decyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03	1	2474		
04-4-0365r	1-Methylnonyl S-2-diethylaminoethyl isopropylphosphonothiolate	1.A.03	1	2341	2346	
07-4-3245	Methyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1460		
07-4-3246	Methyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1543		
07-4-3247	Methyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1544		
07-4-3248	Methyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1605		
07-4-3249	Methyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03	2	1592		
07-4-3250	Methyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1666		
07-4-3251	Ethyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1515		
07-4-3252	Ethyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1595		

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	RI(c)
07-4-3253	Ethyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1596		
07-4-3254	Ethyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1656		
07-4-3255	Ethyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03	2	1641		
07-4-3256	Ethyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1714		
07-4-3257	Propyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1605		
07-4-3258	Propyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1685		
07-4-3259	Propyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1686		
07-4-3260	Propyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1745		
07-4-3261	Propyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03	2	1730		
07-4-3262	Propyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1802		
07-4-3263	Isopropyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1527		
07-4-3264	Isopropyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1607		
07-4-3265	Isopropyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1608		
07-4-3266	Isopropyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1666		
07-4-3267	Isopropyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03	2	1651		

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	RI(c)
07-4-3268	Isopropyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1723		
07-4-3269	Butyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1702		
07-4-3270	Butyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1781		
07-4-3271	Butyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1782		
07-4-3272	Butyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1840		
07-4-3273	Butyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03	2	1826		
07-4-3274	Butyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1897		
07-4-3275	sec-Butyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1621	1627	
07-4-3276	sec-Butyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1700	1706	
07-4-3277	sec-Butyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1700	1706	
07-4-3278	sec-Butyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1758	1764	
07-4-3279	sec-Butyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03	2	1743	1749	
07-4-3280	sec-Butyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1814	1819	
07-4-3281	Isobutyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1654		
07-4-3282	Isobutyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1732		

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	RI(c)
07-4-3283	Isobutyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1733		
07-4-3284	Isobutyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1790		
07-4-3285	Isobutyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03	2	1775		
07-4-3286	Isobutyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1847		
07-4-3287	Cyclohexyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1954		
07-4-3288	Cyclohexyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	2031		
07-4-3289	Cyclohexyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	2033		
07-4-3290	Cyclohexyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	2089		
07-4-3291	Cyclohexyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03	2	2075		
07-4-3292	Cyclohexyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	2148		
07-4-3293	Pinacolyl S-2-N-ethyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1738	1757	
07-4-3294	Pinacolyl S-2-N-methyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1816	1836	
07-4-3295	Pinacolyl S-2-N-isopropyl-N-methylaminoethyl methylphosphonothiolate	1.A.03	2	1818	1837	
07-4-3296	Pinacolyl S-2-N-ethyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1874	1892	
07-4-3297	Pinacolyl S-2-N-ethyl-N-isopropylaminoethyl methylphosphonothiolate	1.A.03	2	1859	1878	

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	RI(c)
07-4-3298	Pinacolyl S-2-N-isopropyl-N-propylaminoethyl methylphosphonothiolate	1.A.03	2	1929	1947	
16-4-0272	Ethyl 2-methoxy-1-methylethyl isopropylphosphonate	2.B.04	1	1340		
16-4-0273	Isopropyl 2-methoxy-1-methylethyl isopropylphosphonate	2.B.04	1	1358	1361	
16-4-0274	2-Methoxy-1-methylethyl propyl isopropylphosphonate	2.B.04	1	1426	1429	
16-4-0275	Butyl 2-methoxy-1-methylethyl isopropylphosphonate	2.B.04	1	1511	1516	
16-4-0276	1,2-Dimethylpropyl 2-methoxy-1-methylethyl isopropylphosphonate	2.B.04	1	1501	1513	
16-4-0277	Bis(1,2-dimethylpropyl) isopropylphosphonate	2.B.04	1	1500	1507	1514
16-4-0278	1-Ethylpropyl isopropyl isopropylphosphonate	2.B.04	1	1362		
16-4-0279	1-Ethylpropyl propyl isopropylphosphonate	2.B.04	1	1425		
16-4-0280	3-Methylbutyl propyl isopropylphosphonate	2.B.04	1	1450		
16-4-0281	Cyclopentyl 2-methoxy-1-methylethyl isopropylphosphonate	2.B.04	1	1642	1649	
16-4-0282	1,2-Dimethylpropyl propyl isopropylphosphonate	2.B.04	1	1401	1411	
16-4-0284	2-Ethoxy-1-methylethyl ethyl isopropylphosphonate	2.B.04	1	1399		
16-4-0285	2-Ethoxy-1-methylethyl isopropyl isopropylphosphonate	2.B.04	1	1420		
16-4-0286	2-Ethoxy-1-methylethyl propyl isopropylphosphonate	2.B.04	1	1487		
16-4-0287	Bis(2-ethoxy-1-methylethyl) isopropylphosphonate	2.B.04	1	1649	1657	
16-4-0288	2-Isopropoxyethyl methyl isopropylphosphonate	2.B.04	1	1388		
16-4-0289	Ethyl 2-isopropoxyethyl isopropylphosphonate	2.B.04	1	1438		
16-4-0290	2-Isopropoxyethyl isopropyl isopropylphosphonate	2.B.04	1	1458		
16-4-0291	2-Isopropoxyethyl propyl isopropylphosphonate	2.B.04	1	1524		
16-4-0292	Bis(2-isopropoxyethyl) isopropylphosphonate	2.B.04	1	1733		
16-4-0293	2-Methoxy-1-methylethyl propyl propylphosphonate	2.B.04	1	1466		
16-4-0294	Isopropyl 2-methoxy-1-methylethyl propylphosphonate	2.B.04	1	1398		
16-4-0295	1,2-Dimethylpropyl 2-methoxyethyl methylphosphonate	2.B.04	1	1397	1407	
16-4-0296	1,2-Dimethylpropyl 2-methoxyethyl ethylphosphonate	2.B.04	1	1471	1481	
16-4-0297	Cyclopentyl 2-methoxy-1-methylethyl methylphosphonate	2.B.04	1	1539	1548	
16-4-0298	2,2-Dimethylpropyl isopropyl methylphosphonate	2.B.04	1	1216		
16-4-0299	2,2-Dimethylpropyl isopropyl ethylphosphonate	2.B.04	1	1290		

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	RI(c)
16-4-0300	2,2-Dimethylpropyl isopropyl isopropylphosphonate	2.B.04	1	1327		
16-4-0301	2,2-Dimethylpropyl isopropyl propylphosphonate	2.B.04	1	1365		
16-4-0302	2,2-Dimethylpropyl propyl methylphosphonate	2.B.04	1	1280		
16-4-0303	2,2-Dimethylpropyl propyl ethylphosphonate	2.B.04	1	1356		
16-4-0304	2,2-Dimethylpropyl propyl isopropylphosphonate	2.B.04	1	1389		
16-4-0305	2,2-Dimethylpropyl propyl propylphosphonate	2.B.04	1	1430		
16-4-0306	Bis(2-methoxy-1-methylethyl) isopropylphosphonate	2.B.04	1	1531	1536	1540
16-4-0307	1-Ethyl-2-methylpropyl propyl isopropylphosphonate	2.B.04	1	1478	1484	
16-4-0308	Butyl 1-ethyl-2-methylpropyl methylphosphonate	2.B.04	1	1464	1468	
16-4-0309	Butyl 1-ethyl-2-methylpropyl ethylphosphonate	2.B.04	1	1535	1540	
16-4-0310	Butyl 1-ethyl-2-methylpropyl isopropylphosphonate	2.B.04	1	1565	1571	
16-4-0311	Butyl 1-ethyl-2-methylpropyl propylphosphonate	2.B.04	1	1603	1608	
07-4-3299	Methyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1545		
07-4-3300	Methyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1626		
07-4-3301	Methyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1624		
07-4-3302	Methyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1687		
07-4-3303	Methyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03	2	1673		
07-4-3304	Methyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1746		
07-4-3305	Ethyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1592		
07-4-3306	Ethyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1674		
07-4-3307	Ethyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1672		

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	RI(c)
07-4-3308	Ethyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1731		
07-4-3309	Ethyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03	2	1714		
07-4-3310	Ethyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1786		
07-4-3311	Propyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1681		
07-4-3312	Propyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1760		
07-4-3313	Propyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1763		
07-4-3314	Propyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1817		
07-4-3315	Propyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03	2	1803		
07-4-3316	Propyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1873		
07-4-3317	Isopropyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1600		
07-4-3318	Isopropyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1679		
07-4-3319	Isopropyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1681		
07-4-3320	Isopropyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1737		
07-4-3321	Isopropyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03	2	1722		
07-4-3322	Isopropyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1791		

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	RI(c)
07-4-3323	Butyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1776		
07-4-3324	Butyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1853		
07-4-3325	Butyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1855		
07-4-3326	Butyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1911		
07-4-3327	Butyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03	2	1895		
07-4-3328	Butyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1965		
07-4-3329	sec-Butyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1694	1700	
07-4-3330	sec-Butyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1771	1776	
07-4-3331	sec-Butyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1773	1779	
07-4-3332	sec-Butyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1827	1832	
07-4-3333	sec-Butyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03	2	1812	1817	
07-4-3334	sec-Butyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1880	1885	
07-4-3335	Isobutyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1728		
07-4-3336	Isobutyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1805		
07-4-3337	Isobutyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1807		

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	RI(c)
07-4-3338	Isobutyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1861		
07-4-3339	Isobutyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03	2	1845		
07-4-3340	Isobutyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1914		
07-4-3341	Cyclohexyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	2022		
07-4-3342	Cyclohexyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	2100		
07-4-3343	Cyclohexyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	2102		
07-4-3344	Cyclohexyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	2157		
07-4-3345	Cyclohexyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03	2	2145		
07-4-3346	Cyclohexyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	2213		
07-4-3347	Pinacolyl S-2-N-ethyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1812	1829	
07-4-3348	Pinacolyl S-2-N-methyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1889	1906	
07-4-3349	Pinacolyl S-2-N-isopropyl-N-methylaminoethyl ethylphosphonothiolate	1.A.03	2	1889	1907	
07-4-3350	Pinacolyl S-2-N-ethyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1946	1964	
07-4-3351	Pinacolyl S-2-N-ethyl-N-isopropylaminoethyl ethylphosphonothiolate	1.A.03	2	1933	1945	
07-4-3352	Pinacolyl S-2-N-isopropyl-N-propylaminoethyl ethylphosphonothiolate	1.A.03	2	1995	2011	

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	RI(c)
28-4-0180	Chloro(ethylthio)methylphosphine	2.B.04	1	952		
28-4-0181	Chloro(isopropylthio)methylphosphine	2.B.04	1	999		
28-4-0182	Chloro(propylthio)methylphosphine	2.B.04	1	1055		
28-4-0183	sec-Butylthio(chloro)methylphosphine	2.B.04	1	1107		
28-4-0184	sec-Butylthio(chloro)methyl-d3-phosphine	2.B.04	1	1102		
28-4-0185	Butylthio(chloro)methylphosphine	2.B.04	1	1156		
28-4-0186	Chloro(pentylthio)methylphosphine	2.B.04	1	1251		
28-4-0187	Chloro(hexylthio)methylphosphine	2.B.04	1	1360		
28-4-0188	Bis(ethylthio)methylphosphine	2.B.04	1	1200		
28-4-0189	Bis(ethylthio)methyl-d3-phosphine	2.B.04	1	1197		
28-4-0190	Bis(propylthio)methylphosphine	2.B.04	1	1380		
28-4-0191	Bis(propylthio)methyl-d3-phosphine	2.B.04	1	1378		
28-4-0192	Bis(isopropylthio)methylphosphine	2.B.04	1	1271		
28-4-0193	Bis(sec-butylthio)methylphosphine	2.B.04	1	1467		
28-4-0194	Bis(sec-butylthio)methyl-d3-phosphine	2.B.04	1	1463		
28-4-0195	Bis(pentylthio)methylphosphine	2.B.04	1	1769		
28-4-0196	Bis(hexylthio)methylphosphine	2.B.04	1	1973		
28-4-0197	Ethylthio(propylthio)methylphosphine	2.B.04	1	1283		
28-4-0198	sec-Butylthio(ethylthio)methylphosphine	2.B.04	1	1330		
28-4-0199	sec-Butylthio(ethylthio)methyl-d3-phosphine	2.B.04	1	1321		
28-4-0200	Ethylthio(pentylthio)methylphosphine	2.B.04	1	1498		
28-4-0201	Ethylthio(pentylthio)methyl-d3-phosphine	2.B.04	1	1492		
28-4-0202	sec-Butylthio(propylthio)methylphosphine	2.B.04	1	1427		
28-4-0203	sec-Butylthio(propylthio)methyl-d3-phosphine	2.B.04	1	1424		
28-4-0204	Pentylthio(propylthio)methylphosphine	2.B.04	1	1581		

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