



NOTE BY THE TECHNICAL SECRETARIAT

**REPORT OF THE SIXTY-FIRST MEETING OF THE VALIDATION GROUP FOR
THE UPDATING OF THE OPCW CENTRAL ANALYTICAL DATABASE
8 – 10 APRIL 2026**

1. The Validation Group met from 8 to 10 April 2026 to discuss the evaluation of analytical data for possible inclusion in the OPCW Central Analytical Database (OCAD) and to consider matters related to this database. Mr Brian Mayer (United States of America) served as the Chairperson of the meeting. The meeting was held in a hybrid format, with some members attending in person and others joining via videoconference. Meetings addressing data review were held in accordance with the subgroup coordinators' preferences.
2. Evaluators for the various analytical techniques examined newly submitted datasets and reported their findings to the respective technique coordinators. The names of the coordinators and the analytical technique for which each was responsible are listed in the table below:

Mr Armando Alcaraz (United States of America)	Infrared (IR) spectroscopy
Mr Arkady Braun (Russian Federation)	Mass spectrometry (MS)
Mr Damian Magiera (Germany)	Nuclear magnetic resonance (NMR) spectroscopy
Mr Marc-Michael Blum (Germany)	Gas chromatography (retention index) (GC(RI))

3. The Validation Group welcomed several new participants: Mr Keunhong Jeong (Republic of Korea), Mr Mohana Krishna Reddy Mudiam (India), Mr Jithender Reddy Gurralla (India), and Mr John Cort (United States of America). Their nominations had been endorsed by their respective National Authorities. In addition, Mr Alex Danner (Germany), Ms Allison Felter (United States of America), and Ms Jina Wu (China) attended as observers.
4. The Validation Group continues to encourage nominations for membership from the wider scientific community. Prospective members should possess recognised expertise in analytical chemistry and need not be affiliated with an OPCW designated laboratory. Nominations must be submitted by National Authorities and should include a curriculum vitae that substantiates the nominee's qualifications.



5. The OPCW Laboratory provided an update on the status of the OCAD and informed the Group of the Secretariat's intention to distribute the evaluation of submitted data across upcoming meetings to avoid placing undue burden on the subgroups.
6. The Group compared the current contents of the OCAD and the Validation Group Working Database (VGWD) and determined that the minor differences (amounting to approximately 300 additional datasets) did not justify maintaining two separate databases. To streamline workflows, reduce administrative burden, and strengthen data integrity, the Group agreed that consolidating these databases would provide a clearer and more consistent foundation for future analytical work. The Group recommends that the additional data contained in the VGWD be formally incorporated into the OCAD, noting that these data would support continued growth of the database without compromising analytical rigour. To support the inclusion of non-scheduled chemicals in the OCAD, the Group established three new classifications: compounds related to Lewisites (NDP-L), compounds related to Schedule 2 chemicals (NDP-2), and compounds related to Schedule 3 chemicals (NDP-3). These classifications are intended to apply exclusively to non-scheduled chemicals that may be included in OPCW on-site databases. Two additional categories were proposed: non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions (NSX) and old chemical weapons and related chemicals (OCW). These categories, as well as the existing DSX category (scheduled chemicals derivatised with derivatisation agents not approved for on-site missions) will not be available as additional subcategories for on-site databases used during on-site inspections. By incorporating the additional data into the OCAD, the VGWD would no longer be maintained or released. The Group concluded that this consolidation recommendation is consistent with broader OPCW goals to sustain standardisation, transparency, and long-term maintainability of its core database.
7. To clarify outcomes described in paragraph 6, the table below outlines the categories for compounds that are not scheduled but are relevant to the Chemical Weapons Convention (the Convention).

Schedule	Explanation	Available in the On-Site Database
DS	Scheduled chemicals derivatised with approved derivatisation agents	Yes
NS	Non-scheduled chemicals	Yes
NSX	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	No
DSX	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	No
OCW	Old chemical weapons and related chemicals	No

8. The table below summarises the classifications used for non-scheduled chemicals (NS) that may be approved for on-site missions.

Classification	Explanation
FP11	Non-scheduled chemicals required to remove false positives in Schedule 2.B.11 inspections
FP12	Non-scheduled chemicals required to remove false positives in Schedule 2.B.12 inspections
NDP-G	Non-scheduled degradation products or known synthesis impurities or by-products related to Schedules 1.A.01 or 1.A.02
NDP-V	Non-scheduled degradation products or known synthesis impurities or by-products related to Schedule 1.A.03
NDP-H	Non-scheduled degradation products or known synthesis impurities or by-products related to Schedule 1.A.04
NDP-L	Non-scheduled degradation products or known synthesis impurities or by-products related to Schedule 1.A.05
NDP-N	Non-scheduled precursors or degradation products or known synthesis impurities or by-products related to Schedules 1.A.13, 1.A.14, or 1.A.15
NDP-2	Non-scheduled degradation products or known synthesis impurities or by-products related to Schedule 2
NDP-3	Non-scheduled degradation products or known synthesis impurities or by-products related to Schedule 3
RCA	Riot control agents

9. The Group reviewed approximately 100 previously postponed datasets. Most were rejected for a range of technical reasons, while those meeting the required standards were accepted and recommended for inclusion into the OCAD.
10. The Group also examined around 50 analogues of the riot control agent CS. It was determined that the associated data should not be pursued further for inclusion in the OCAD or the VGWD, as the information was already available through the NIST Mass Spectral Library. This decision was discussed with the submitting laboratory, which agreed.
11. The Chairperson summarised progress made in updating the document entitled “Procedures for the Evaluation of Data to Be Included in the OPCW Central Analytical Database”. Subgroups continued to work on refining submission requirement checklists and evaluation criteria and undertaking a comprehensive review of the text of the document. A revision will be provided to subgroup coordinators and members by 31 May 2026 for additional input, with the aim of finalising the document by 15 August 2026.
12. The Modernisation Temporary Working Subgroup is seeking membership from within the current Validation Group. The Chairperson will contact members during the week following the meeting to solicit expressions of interest. Membership is expected to be confirmed by 31 May 2026 and to include at least one representative from each of the four technique-specific subgroups.

13. The Group considered whether to establish limits on the period during which postponed data may remain pending before rejection. It was agreed that corrections must normally be received within one year. Exceptions to this rule may be granted but must be coordinated with and approved by the Group or the OPCW Laboratory. For GC(RI) data postponed due to the absence of comparative data, such datasets may remain postponed indefinitely to allow time for the generation and submission of additional supporting data. The OPCW Laboratory will inform submitting laboratories of these requirements and needs.
14. Several issues related to chemical-naming rules were discussed. These matters will be incorporated into the revision of the “Protocol for naming compounds in the OPCW Central Analytical Database”.
15. The coordinators provided evaluation summaries of the data submitted to the Validation Group for discussion at the meeting. The evaluators finalised their evaluation and confirmed that the datasets recommended for inclusion met the necessary technical standards.
16. Annex 1 to this Note lists the sets of validated analytical data on scheduled chemicals recommended for inclusion in the OCAD. Annex 2 lists validated analytical data for non-scheduled chemicals relevant to the Convention recommended for inclusion in the OCAD. Annex 3 provides the current membership of the Validation Group.
17. The Group requests that all analytical datasets intended for review be submitted at least six weeks in advance of the next meeting, which is proposed to take place on 2 and 3 September 2026 at the OPCW Centre for Chemistry and Technology (ChemTech Centre). The evaluators agreed to provide their evaluation reports to the relevant coordinators no later than 20 August 2026 and to prepare for the finalisation of remaining evaluations during the meeting. Virtual participation will remain available for evaluators unable to travel to the ChemTech Centre.

Annexes:

- Annex 1: Lists of Approved Data on Scheduled Chemicals Recommended for Inclusion in the OPCW Central Analytical Database
- Annex 2: Lists of Approved Data on Non-scheduled Chemicals Relevant to the Chemical Weapons Convention and Recommended for Inclusion in the OPCW Central Analytical Database
- Annex 3: List of Members of the Validation Group

Annex 1

**LISTS OF APPROVED DATA ON SCHEDULED CHEMICALS
RECOMMENDED FOR INCLUSION IN THE OPCW CENTRAL ANALYTICAL DATABASE**

Note: In the “Decision” column of the tables that follow, “A” means “accepted”, and “B” means “accepted subject to minor corrections”.

TABLE 1: LIST OF APPROVED MS DATA ON SCHEDULED CHEMICALS

OPCW Code	Chemical Name	Schedule	Decision
29-2-0089	N-(1-(Dipropylamino)ethylidene)-P-ethylphosphonamidic fluoride	1.A.13	A
29-2-0090	N-(1-(Diethylamino)ethylidene)-P-ethylphosphonamidic fluoride	1.A.13	A
29-2-0091	N-(1-(Dibutylamino)butylidene)-P-ethylphosphonamidic fluoride	1.A.13	A
29-2-0093	N-(1-(Dimethylamino)ethylidene)-P-ethylphosphonamidic fluoride	1.A.13	A
29-2-0094	N-(1-(Dimethylamino)ethylidene)-P-isopropylphosphonamidic fluoride	1.A.13	A
29-2-0095	N-(1-(Ethylmethylamino)ethylidene)-P-isopropylphosphonamidic fluoride	1.A.13	A
29-2-0096	N-(1-(Methylpropylamino)ethylidene)-P-isopropylphosphonamidic fluoride	1.A.13	A
29-2-0098	N-(1-(Dipropylamino)ethylidene)-P-isopropylphosphonamidic fluoride	1.A.13	A
29-2-0099	N-(1-(Dibutylamino)ethylidene)-P-isopropylphosphonamidic fluoride	1.A.13	A
29-2-0100	N-(1-(Dipropylamino)butylidene)-P-isopropylphosphonamidic fluoride	1.A.13	A
29-2-0101	N-(1-(Dibutylamino)butylidene)-P-isopropylphosphonamidic fluoride	1.A.13	A
29-2-0104	N-(1-(Dipropylamino)ethylidene)-P-butylphosphonamidic fluoride	1.A.13	A
29-2-0105	N-(1-(Dibutylamino)ethylidene)-P-butylphosphonamidic fluoride	1.A.13	A
29-2-0108	N-(1-(Ethylmethylamino)ethylidene)-P-octylphosphonamidic fluoride	1.A.13	A
29-2-0110	N-(1-(Dipropylamino)butylidene)-P-octylphosphonamidic fluoride	1.A.13	A

OPCW Code	Chemical Name	Schedule	Decision
29-2-0111	N-(1-(Dibutylamino)butylidene)-P-octylphosphonamidic fluoride	1.A.13	A
29-2-0113	Propyl N-(1-(dibutylamino)butylidene)phosphoramidofluoridate	1.A.14	A
38-2-0001	Diallyl methylphosphonate	2.B.04	A
38-2-0002	Dicrotyl methylphosphonate	2.B.04	A
38-2-0003	Di(3-buten-1-yl) methylphosphonate	2.B.04	A
38-2-0004	Di(5-hexen-1-yl) methylphosphonate	2.B.04	A
38-2-0005	Diallyl ethylphosphonate	2.B.04	A
38-2-0006	Dicrotyl ethylphosphonate	2.B.04	A
38-2-0007	Di(3-buten-1-yl) ethylphosphonate	2.B.04	A
38-2-0008	Di(5-hexen-1-yl) ethylphosphonate	2.B.04	A
38-2-0009	Diallyl propylphosphonate	2.B.04	A
38-2-0010	Dicrotyl propylphosphonate	2.B.04	A
38-2-0011	Di(3-buten-1-yl) propylphosphonate	2.B.04	A
38-2-0012	Di(5-hexen-1-yl) propylphosphonate	2.B.04	A
38-2-0013	Diallyl isopropylphosphonate	2.B.04	A
38-2-0014	Dicrotyl isopropylphosphonate	2.B.04	A
38-2-0015	Di(3-buten-1-yl) isopropylphosphonate	2.B.04	A
38-2-0016	Di(5-hexen-1-yl) isopropylphosphonate	2.B.04	A
38-2-0017	Allyl trimethylsilyl methylphosphonate	2.B.04	A
38-2-0018	Crotyl trimethylsilyl methylphosphonate	2.B.04	A
38-2-0019	3-Buten-1-yl trimethylsilyl methylphosphonate	2.B.04	A

OPCW Code	Chemical Name	Schedule	Decision
38-2-0021	Allyl trimethylsilyl ethylphosphonate	2.B.04	A
38-2-0022	Crotyl trimethylsilyl ethylphosphonate	2.B.04	A
38-2-0023	3-Buten-1-yl trimethylsilyl ethylphosphonate	2.B.04	A
38-2-0024	5-Hexen-1-yl trimethylsilyl ethylphosphonate	2.B.04	A
38-2-0025	Allyl trimethylsilyl propylphosphonate	2.B.04	A
38-2-0026	Crotyl trimethylsilyl propylphosphonate	2.B.04	A
38-2-0027	3-Buten-1-yl trimethylsilyl propylphosphonate	2.B.04	A
38-2-0028	5-Hexen-1-yl trimethylsilyl propylphosphonate	2.B.04	A
38-2-0029	Allyl trimethylsilyl isopropylphosphonate	2.B.04	A
38-2-0030	Crotyl trimethylsilyl isopropylphosphonate	2.B.04	A
38-2-0031	3-Buten-1-yl trimethylsilyl isopropylphosphonate	2.B.04	A
38-2-0032	5-Hexen-1-yl trimethylsilyl isopropylphosphonate	2.B.04	A

TABLE 2: LIST OF APPROVED NMR DATA ON SCHEDULED CHEMICALS

OPCW Code	Chemical Name	Schedule	Decision
05-3-0203	N ¹ -(3-((Dimethylcarbamoyloxy)-2-picolinyl)-N ¹⁰ -(3-hydroxypropyl)-N ¹ ,N ¹ ,N ¹⁰ ,N ¹⁰ -tetramethyldecane-1,10-diammonium dibromide	1.A.16	B
05-3-0204	N ¹ -(3-((Dimethylcarbamoyloxy)-2-picolinyl)-N ¹⁰ -(3-hydroxypropyl)-N ¹ ,N ¹ ,N ¹⁰ ,N ¹⁰ -tetramethyldecane-1,10-diammonium dibromide	1.A.16	B

TABLE 3: LIST OF APPROVED GC(RI) DATA ON SCHEDULED CHEMICALS

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

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	Decision
15-4-0046	3,3,5,5-Tetramethylcyclohexyl N,N-diethyl-P,P'-diethyldiphosphono-P-amidate	2.B.04	1	2309	2316	A
15-4-0076	Isobutyl N,N-diethyl-P,P'-dimethyldiphosphono-P-amidate	2.B.04	1	1763	1767	B
17-4-0236	Trimethylsilyl 3-(trimethylsilyloxy)cyclohexyl ethylphosphonate	2.B.04	1	1786		A
17-4-0237	Trimethylsilyl 3-(trimethylsilyloxy)cyclohexyl methylphosphonate	2.B.04	1	1721		A
17-4-0238	Trimethylsilyl 3-(trimethylsilyloxy)cyclohexyl propylphosphonate	2.B.04	1	1850	1891	A
17-4-0239	Trimethylsilyl cis-4-(trimethylsilyloxy)cyclohexyl methylphosphonate	2.B.04	1	1790		
29-4-0089	N-(1-(Dipropylamino)ethylidene)-P-ethylphosphonamidic fluoride	1.A.13	1	1774		A
29-4-0090	N-(1-(Diethylamino)ethylidene)-P-ethylphosphonamidic fluoride	1.A.13	1	1628		A
29-4-0091	N-(1-(Dibutylamino)butylidene)-P-ethylphosphonamidic fluoride	1.A.13	1	1988		A
29-4-0093	N-(1-(Dimethylamino)ethylidene)-P-ethylphosphonamidic fluoride	1.A.13	1	1527		A
29-4-0094	N-(1-(Dimethylamino)ethylidene)-P-isopropylphosphonamidic fluoride	1.A.13	1	1574		A
29-4-0095	N-(1-(Ethylmethylamino)ethylidene)-P-isopropylphosphonamidic fluoride	1.A.13	1	1625		A
29-4-0096	N-(1-(Methylpropylamino)ethylidene)-P-isopropylphosphonamidic fluoride	1.A.13	1	1706		A
29-4-0098	N-(1-(Dipropylamino)ethylidene)-P-isopropylphosphonamidic fluoride	1.A.13	1	1822		A
29-4-0099	N-(1-(Dibutylamino)ethylidene)-P-isopropylphosphonamidic fluoride	1.A.13	1	1998		A
29-4-0100	N-(1-(Dipropylamino)butylidene)-P-isopropylphosphonamidic fluoride	1.A.13	1	1864		A
29-4-0101	N-(1-(Dibutylamino)butylidene)-P-isopropylphosphonamidic fluoride	1.A.13	1	2029		A
29-4-0104	N-(1-(Dipropylamino)ethylidene)-P-butylphosphonamidic fluoride	1.A.13	1	1954		A

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	Decision
29-4-0105	N-(1-(Dibutylamino)ethylidene)-P-butyolphosphonamidic fluoride	1.A.13	1	2125		A
29-4-0108	N-(1-(Ethylmethylamino)ethylidene)-P-octylphosphonamidic fluoride	1.A.13	1	2180		A
29-4-0110	N-(1-(Dipropylamino)butylidene)-P-octylphosphonamidic fluoride	1.A.13	1	2388		A
29-4-0111	N-(1-(Dibutylamino)butylidene)-P-octylphosphonamidic fluoride	1.A.13	1	2540		A
29-4-0113	Propyl N-(1-(dibutylamino)butylidene)phosphoramidofluoridate	1.A.14	1	2095		A
38-4-0001	Diallyl methylphosphonate	2.B.04	2	1158		A
38-4-0002	Dicrotyl methylphosphonate	2.B.04	2	1397		A
38-4-0003	Di(3-buten-1-yl) methylphosphonate	2.B.04	2	1339		A
38-4-0004	Di(5-hexen-1-yl) methylphosphonate	2.B.04	2	1738		A
38-4-0005	Diallyl ethylphosphonate	2.B.04	2	1235		A
38-4-0006	Dicrotyl ethylphosphonate	2.B.04	2	1469		A
38-4-0007	Di(3-buten-1-yl) ethylphosphonate	2.B.04	2	1415		A
38-4-0008	Di(5-hexen-1-yl) ethylphosphonate	2.B.04	2	1809		A
38-4-0009	Diallyl propylphosphonate	2.B.04	2	1314		A
38-4-0010	Dicrotyl propylphosphonate	2.B.04	2	1545		A
38-4-0011	Di(3-buten-1-yl) propylphosphonate	2.B.04	2	1490		A
38-4-0012	Di(5-hexen-1-yl) propylphosphonate	2.B.04	2	1880		A
38-4-0013	Diallyl isopropylphosphonate	2.B.04	2	1271		A
38-4-0014	Dicrotyl isopropylphosphonate	2.B.04	2	1497		A
38-4-0015	Di(3-buten-1-yl) isopropylphosphonate	2.B.04	2	1449		A

OPCW Code	Chemical Name	Schedule	Column	RI(a)	RI(b)	Decision
38-4-0016	Di(5-hexen-1-yl) isopropylphosphonate	2.B.04	2	1836		A
38-4-0017	Allyl trimethylsilyl methylphosphonate	2.B.04	2	1144		A
38-4-0018	Crotyl trimethylsilyl methylphosphonate	2.B.04	2	1258		A
38-4-0019	3-Buten-1-yl trimethylsilyl methylphosphonate	2.B.04	2	1231		A
38-4-0021	Allyl trimethylsilyl ethylphosphonate	2.B.04	2	1218		A
38-4-0022	Crotyl trimethylsilyl ethylphosphonate	2.B.04	2	1329		A
38-4-0023	3-Buten-1-yl trimethylsilyl ethylphosphonate	2.B.04	2	1304		A
38-4-0024	5-Hexen-1-yl trimethylsilyl ethylphosphonate	2.B.04	2	1496		A
38-4-0025	Allyl trimethylsilyl propylphosphonate	2.B.04	2	1290		A
38-4-0026	Crotyl trimethylsilyl propylphosphonate	2.B.04	2	1399		A
38-4-0027	3-Buten-1-yl trimethylsilyl propylphosphonate	2.B.04	2	1375		A
38-4-0028	5-Hexen-1-yl trimethylsilyl propylphosphonate	2.B.04	2	1565		A
38-4-0029	Allyl trimethylsilyl isopropylphosphonate	2.B.04	2	1253		A
38-4-0030	Crotyl trimethylsilyl isopropylphosphonate	2.B.04	2	1361		A
38-4-0031	3-Buten-1-yl trimethylsilyl isopropylphosphonate	2.B.04	2	1339		A
38-4-0032	5-Hexen-1-yl trimethylsilyl isopropylphosphonate	2.B.04	2	1529		A

Annex 2

**LISTS OF APPROVED DATA ON NON-SCHEDULED CHEMICALS RELEVANT TO THE CHEMICAL WEAPONS CONVENTION
AND RECOMMENDED FOR INCLUSION IN THE OPCW CENTRAL ANALYTICAL DATABASE**

Note: In the “Decision” column of the tables that follow, “A” means “accepted,” and “B” means “accepted subject to minor corrections”.

TABLE 1: LIST OF APPROVED IR DATA ON NON-SCHEDULED CHEMICALS

OPCW Code	Chemical Name	Schedule	Decision	Justification
02-1-0092	Diocetyl N,N-dimethylphosphoramidate	NS	B	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedules 1.A.01 or 1.A.02
02-1-0094	Dihexyl N,N-dimethylphosphoramidate	NS	B	
02-1-0230	Tetrakis(2-chlorovinyl)diaroxane	NS	B	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 1.A.05
02-1-0231	Dimethyl (2-chlorovinyl)arsonite	DSX	B	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions
02-1-0232	Diethyl (2-chlorovinyl)arsonite	DSX	B	
02-1-0235	Propyl bis(2-chlorovinyl)arsinothiolite	DSX	B	
02-1-0236	Pinacetyl (2-chlorovinyl)arsonochloridite	DSX	B	
02-1-0237	Diisopropyl (2-chlorovinyl)arsonodithiolite	DSX	B	
02-1-0238	Isopropyl bis(2-chlorovinyl)arsinothiolite	DSX	B	
02-1-0239	Decyl bis(2-chlorovinyl)arsinite	DSX	B	
02-1-0240	Pinacetyl bis(2-chlorovinyl)arsinite	DSX	B	
02-1-0241	Octyl bis(2-chlorovinyl)arsinite	DSX	B	

OPCW Code	Chemical Name	Schedule	Decision	Justification
02-1-0242	Octyl (2-chlorovinyl)arsonochloridite	DSX	B	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions
02-1-0244	Decyl (2-chlorovinyl)arsonochloridite	DSX	B	
02-1-0245	2-Methoxy-2-oxoethyl bis(2-chlorovinyl)arsinothiolite	DSX	B	
02-1-0246	Bis(2-methoxy-2-oxoethyl) (2-chlorovinyl)arsonodithiolite	DSX	B	
19-1-0026x	10-Chloro-5,10-dihydrophenarsazine	OCW	A	Old chemical weapons and related chemicals ¹
19-1-0027x	Benzyl bromide	OCW	A	

¹ Chemicals assigned this justification are associated with compounds that the OPCW Scientific Advisory Board, in SAB-25/WP.1 (dated 27 March 2017), did not consider to be riot control agents. However, as these chemicals and related compounds have historically been examined for potential use as riot control agents, the data associated with them fall under the OCW category.

TABLE 2: LIST OF APPROVED MS DATA ON NON-SCHEDULED CHEMICALS

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²
01-2-0070	Tris(tert-butylsilyloxyethyl)arsenate	OCW	A	Old chemical weapons and related chemicals	–
01-2-0071	Bis(2-tert-butylsilyloxyethyl)sulfide	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
01-2-0072	N,N-Bis(2-tert-butylsilyloxyethyl)-N-ethylamine	DSX	A		
01-2-0073	1,2-Bis(2-(tert-butylsilyloxy)ethylthio)ethane	NSX	A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
02-2-0076	Dibutyl N,N-dimethylphosphoramidate	NS	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedules 1.A.01 or 1.A.02	NDP-G
02-2-0077	Dipentyl N,N-dimethylphosphoramidate	NS	A		
02-2-0082	Dioctyl N,N-dimethylphosphoramidate	NS	A		
02-2-0084	Dihexyl N,N-dimethylphosphoramidate	NS	A		
02-2-0086	Diheptyl N,N-dimethylphosphoramidate	NS	A		
05-2-0209	Pinacolyl heptafluorobutanoate	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
06-2-0245	N,N-Diisopropyl-N-(2-tert-butylsilyloxyethyl)amine	DSX	A		
06-2-0358	2-(2-Chlorovinyl)-5-methyl-1,3,2-benzodithiarsole	DSX	A		
06-2-0359	2-Chloro-5-methyl-1,3,2-benzodithiarsole	DSX	A		
06-2-0363	Tris(2-tert-butylsilyloxyethyl)amine	DSX	A		

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Justifications are provided for all approved MS data concerning non-scheduled chemicals. Classification, however, is required only when such data may be used for on-site missions. This requirement applies solely to NS (non-scheduled chemicals). All other categories (NSX, DSX, and OCW) do not require classification and are indicated with “–” in the relevant table cells.

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²		
07-2-3043	N,N-Dimethyl-N-(2-tert-butyl)dimethylsilylthioethyl)amine	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-		
07-2-3044	N-Ethyl-N-methyl-N-(2-tert-butyl)dimethylsilylthioethyl)amine	DSX	A				
07-2-3045	N-Methyl-N-propyl-N-(2-tert-butyl)dimethylsilylthioethyl)amine	DSX	A				
07-2-3046	N-Isopropyl-N-methyl-N-(2-tert-butyl)dimethylsilylthioethyl)amine	DSX	A				
07-2-3047	N,N-Diethyl-N-(2-tert-butyl)dimethylsilylthioethyl)amine	DSX	A				
07-2-3048	N-Ethyl-N-propyl-N-(2-tert-butyl)dimethylsilylthioethyl)amine	DSX	A				
07-2-3049	N-Ethyl-N-isopropyl-N-(2-tert-butyl)dimethylsilylthioethyl)amine	DSX	A				
07-2-3050	N,N-Dipropyl-N-(2-tert-butyl)dimethylsilylthioethyl)amine	DSX	A				
07-2-3051	N-Isopropyl-N-propyl-N-(2-tert-butyl)dimethylsilylthioethyl)amine	DSX	A				
07-2-3052	N,N-Diisopropyl-N-(2-tert-butyl)dimethylsilylthioethyl)amine	DSX	A				
07-2-3053	N,N-Dimethyl-N-(2-tert-butyl)dimethylsilyloxyethyl)amine	NSX	A			Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
07-2-3054	N-Ethyl-N-methyl-N-(2-tert-butyl)dimethylsilyloxyethyl)amine	DSX	A			Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
07-2-3055	N-Methyl-N-propyl-N-(2-tert-butyl)dimethylsilyloxyethyl)amine	DSX	A				
07-2-3056	N-Isopropyl-N-methyl-N-(2-tert-butyl)dimethylsilyloxyethyl)amine	DSX	A				

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²
07-2-3057	N,N-Diethyl-N-(2-tert-butyl-dimethylsilyloxyethyl)amine	NSX	A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
07-2-3058	N-Ethyl-N-propyl-N-(2-tert-butyl-dimethylsilyloxyethyl)amine	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
07-2-3059	N-Ethyl-N-isopropyl-N-(2-tert-butyl-dimethylsilyloxyethyl)amine	DSX	A		
07-2-3060	N,N-Dipropyl-N-(2-tert-butyl-dimethylsilyloxyethyl)amine	DSX	A		
07-2-3061	N-Isopropyl-N-propyl-N-(2-tert-butyl-dimethylsilyloxyethyl)amine	DSX	A		
07-2-3062	N,N-Diisopropyl-N-(2-tert-butyl-dimethylsilyloxyethyl)amine	DSX	A		
08-2-0070	S,S-Diethyl N,N-dipropylphosphoramidodithiolate	DSX	A		
08-2-0071	S-Ethyl S-isobutyl N,N-dipropylphosphoramidodithiolate	DSX	A		
08-2-0072	S,S-Diisobutyl N,N-dipropylphosphoramidodithiolate	DSX	A		
08-2-0073	S,S-Dipropyl N,N-dipropylphosphoramidodithiolate	DSX	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedules 1.A.01 or 1.A.02	NDP-G
08-2-0082	Ethyl 2-methoxyethyl N,N-dimethylphosphoramidate	NS	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 2	NDP-2
08-2-0086	O,O-Diethyl S-methyl phosphorothiolate	NS	A		

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²
08-2-0087	Diethyl methyl phosphate	NS	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 3	NDP-3
08-2-0088	2-(2-Chlorovinyl)-1,3,2-dithiarsolane	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
08-2-0089	O,O-Diethyl O-methyl phosphorothionate	NS	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 2	NDP-2
08-2-0090	2-(2-Chlorovinyl)-5-methyl-1,3,2-benzodithiarsole	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
08-2-0091	O,O-Diethyl O-trimethylsilyl phosphorothionate	NS	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 2	NDP-2
08-2-0093	Diethyl trimethylsilyl phosphate	NS	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedules 1.A.01 or 1.A.02	NDP-G

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²
08-2-0094	Dimethyl tert-butyl dimethylsilyl phosphate	NSX	A		
08-2-0095	Diethyl tert-butyl dimethylsilyl phosphate	NSX	A		
08-2-0096	tert-Butyl dimethylsilyl N,N-dimethylaminoethyl-2-sulfonate	NSX	A		
08-2-0097	tert-Butyl dimethylsilyl N,N-diethylaminoethyl-2-sulfonate	NSX	A		
08-2-0098	tert-Butyl dimethylsilyl N,N-diisopropylaminoethyl-2-sulfonate	NSX	A		
08-2-0099	tert-Butyl dimethylsilyl N,N-dipropylaminoethyl-2-sulfonate	NSX	A		
08-2-0104	Methyl N,N-dimethylaminoethyl-2-sulfonate	NSX	A		
08-2-0105	Methyl N,N-diethylaminoethyl-2-sulfonate	NSX	A		
08-2-0106	Methyl N,N-diisopropylaminoethyl-2-sulfonate	NSX	A		
08-2-0107	Methyl N,N-dipropylaminoethyl-2-sulfonate	NSX	A		
08-2-0111	Methyl tert-butyl dimethylsilyl N,N-diethylphosphoramidate	NSX	A		
08-2-0113	Methyl tert-butyl dimethylsilyl N,N-dipropylphosphoramidate	NSX	A		
08-2-0116	Ethyl tert-butyl dimethylsilyl N,N-diethylphosphoramidate	NSX	A		
08-2-0121	N,N-Bis(2-tert-butyl dimethylsilyloxyethyl)-N-methylamine	DSX	A		
08-2-0122	N,N-Bis(2-tert-butyl dimethylsilyloxyethyl)-N-ethylamine	DSX	A		
08-2-0123	Bis(tert-butyl dimethylsilyl)benzilate	DSX	A		
				Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
				Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²
08-2-0125	Bis(tert-butyl dimethylsilyloxyethyl)sulfone	NSX	A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
08-2-0127	Bis(2-heptafluorobutyloxyethyl)sulfide	DSX	B	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
08-2-0128	1,5-Bis(2-heptafluorobutyloxyethylthio)pentane	NSX	B	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
09-2-0050	2-Ethoxyethyl N-methyl-N-propylphosphoramidocyanidate	NS	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedules 1.A.01 or 1.A.02	NDP-G
09-2-0057r	2-Methoxyethyl N-isopropyl-N-methylphosphoramidocyanidate	NS	A		
09-2-0065	2-Ethoxyethyl N-isopropyl-N-methylphosphoramidocyanidate	NS	A		
09-2-0072	2-Methoxyethyl N-ethyl-N-propylphosphoramidocyanidate	NS	A		
09-2-0076	2-Ethoxyethyl N-ethyl-N-propylphosphoramidocyanidate	NS	A		
09-2-0087	2-Methoxyethyl N-ethyl-N-isopropylphosphoramidocyanidate	NS	A		
09-2-0095	2-Ethoxyethyl N-ethyl-N-isopropylphosphoramidocyanidate	NS	A		
09-2-0101r	2-Methoxyethyl N-isopropyl-N-propylphosphoramidocyanidate	NS	A		

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²		
09-2-0103	Methyl N,N-dimethylaminoethyl-2-sulfonate	NSX	A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-		
09-2-0104	Methyl N-ethyl-N-methylaminoethyl-2-sulfonate	NSX	A				
09-2-0105	Methyl N,N-diethylaminoethyl-2-sulfonate	NSX	A				
09-2-0106	Methyl N-methyl-N-propylaminoethyl-2-sulfonate	NSX	A				
09-2-0107	Methyl N-isopropyl-N-methylaminoethyl-2-sulfonate	NSX	A				
09-2-0108	Methyl N-ethyl-N-isopropylaminoethyl-2-sulfonate	NSX	A				
09-2-0110	Methyl N,N-dipropylaminoethyl-2-sulfonate	NSX	A				
09-2-0111	Methyl N,N-diisopropylaminoethyl-2-sulfonate	NSX	A				
09-2-0112	Methyl N-isopropyl-N-propylaminoethyl-2-sulfonate	NSX	A				
09-2-0165	N,N-Diisopropyl-N-(2-tert-butyl dimethylsilyloxyethyl)amine	DSX	A			Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
16-2-0019	Diphenylchloroarsine	OCW	A			Old chemical weapons and related chemicals	-
16-2-0020	Diphenylcyanoarsine	OCW	A				
16-2-0021	Triphenylarsine	OCW	A				
16-2-0024	Propyl diphenylarsinothiolite	OCW	A				
16-2-0025	Ethyl diphenylarsinothiolite	OCW	A				
16-2-0026	Methyl (diphenylarsino)thioacetate	OCW	A				
16-2-0027	Tetraphenyldiarsoxane	OCW	A				

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²
17-2-0092	2-Chloro-5-methyl-1,3,2-benzodithiarsole	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
17-2-0093	2-(2-Chlorovinyl)-5-methyl-1,3,2-benzodithiarsole	DSX	A		
17-2-0097	Bis(2-chloroethyl)disulfide	NS	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 1.A.04	NDP-H
17-2-0100	Bis(2-chloroethyl)trisulfide	NS	A		
17-2-0106	Methyl bis(2-chlorovinyl)arsinite	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
17-2-0107	Dimethyl (2-chlorovinyl)arsonite	DSX	A		
17-2-0108	Trimethyl arsenite	DSX	A		
17-2-0111	2-(2-Chlorovinyl)-1,3,6,2-dioxathiarsoxane	DSX	A		
17-2-0112	Tetrakis(2-chlorovinyl)diarsoxane	NS	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 1.A.05	NDP-L
17-2-0229	N-Ethyl-N,N-bis(2-trifluoroacetoxyethyl)amine	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
17-2-0230	Bis(2-trifluoroacetoxyethyl)sulfide	DSX	A		
17-2-0231	Tris(2-trifluoroacetoxyethyl)amine	DSX	A		
17-2-0232	N,N-Diisopropyl-N-trifluoroacetoxyethylamine	DSX	A		
17-2-0233	N-2-(Heptafluorobutyryloxyethyl)-N,N-diisopropylamine	DSX	A		
17-2-0234	N-Ethyl-N,N-bis(2-heptafluorobutyryloxyethyl)amine	DSX	A		
17-2-0235	Tris(2-heptafluorobutyryloxyethyl)amine	DSX	A		
17-2-0236	Bis(2-heptafluorobutyryloxyethyl)sulfide	DSX	A		

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²
17-2-0237	N-2-(Heptafluorobutyryloxyethyl)-N,N-dimethylamine	NSX	A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
17-2-0238	N,N-Diethyl-N-heptafluorobutyryloxyethylamine	NSX	A		
17-2-0239	N-Ethyl-N-heptafluorobutyryloxyethyl-N-methylamine	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
17-2-0240	N-2-(Heptafluorobutyryloxyethyl)-N-methyl-N-propylamine	DSX	A		
17-2-0241	N-Ethyl-N-heptafluorobutyryloxyethyl-N-propylamine	DSX	A		
17-2-0242	N-2-(Heptafluorobutyryloxyethyl)-N-isopropyl-N-methylamine	DSX	A		
17-2-0243	N-Ethyl-N-heptafluorobutyryloxyethyl-N-isopropylamine	DSX	A		
17-2-0244	3-Quinuclidinyl heptafluorobutanoate	DSX	A		
17-2-0245	N-2-Heptafluorobutyrylthioethyl-N,N-dimethylamine	DSX	A		
17-2-0246	N,N-Bis(2-heptafluorobutyryloxyethyl)-N-methylamine	DSX	A		
17-2-0247	Bis(2-heptafluorobutyryloxyethyl)sulfoxide	NSX	A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
17-2-0248	Bis(2-heptafluorobutyryloxyethyl)sulfone	NSX	A		
17-2-0249	Pinacolyl heptafluorobutanoate	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
17-2-0250	1,2-Bis(2-heptafluorobutyryloxyethylthio)ethane	NSX	A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²
17-2-0340	Tris(2-tert-butyl dimethylsilyloxyethyl)amine	DSX	B	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
24-2-0040	Bis(2-chloroethyl)disulfide	NS	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 1.A.04	NDP-H
24-2-0067	O,O-Diethyl O-trimethylsilyl phosphorothionate	NS	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 2	NDP-2
24-2-0069	Methyldichloroarsine	OCW	A	Old chemical weapons and related chemicals	–
24-2-0070	Ethyldichloroarsine	OCW	A		
24-2-0072	Diphenylchloroarsine	OCW	A		
24-2-0073	Diphenylcyanoarsine	OCW	A		
24-2-0074	10-Chloro-5,10-dihydrophenarsazine	OCW	A		
24-2-0078	Phosgene oxime	OCW	A		
25-2-0006	Diethyl methyl phosphate	NS	A		
25-2-0007	Ethyl methyl phosphorocyanidate	NS	A		
25-2-0008	Ethyl iodoacetate	OCW	A	Old chemical weapons and related chemicals	–
25-2-0009	Ethyl bromoacetate	OCW	A		
25-2-0010	2-Methylbenzyl bromide	OCW	A		

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²
25-2-0011	3-Methylbenzyl bromide	OCW	A	Old chemical weapons and related chemicals	-
25-2-0012	4-Methylbenzyl bromide	OCW	A		
25-2-0013	Benzyl bromide	OCW	A		
25-2-0016	2-(2-Chlorovinyl)-1,3,2-dithiarsolane	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
25-2-0026	Diethyl trimethylsilyl phosphate	NS	A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedules 1.A.01 or 1.A.02	NDP-G
28-2-0098	O-Propyl methylphosphonothionocyanidate	NS	B	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 2	NDP-2
28-2-0099	O-Ethyl methylphosphonothionocyanidate	NS	B		
28-2-0287	Bis(2-tert-butyl dimethylsilyloxyethyl)sulfide	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
28-2-0288	Bis(2-tert-butyl dimethylsilyloxyethyl)disulfide	NSX	A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
28-2-0289	Bis(2-tert-butyl dimethylsilyloxyethylthio)methane	NSX	A		
28-2-0290	1,2-Bis(2-tert-butyl dimethylsilyloxyethylthio)ethane	NSX	A		
28-2-0291	1,3-Bis(2-tert-butyl dimethylsilyloxyethylthio)propane	NSX	A		
28-2-0292	1,4-Bis(2-tert-butyl dimethylsilyloxyethylthio)butane	NSX	A		
28-2-0293	1,5-Bis(2-tert-butyl dimethylsilyloxyethylthio)pentane	NSX	A		

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²
28-2-0308	Dipropyl methylarsonodithiolite	OCW	B	Old chemical weapons and related chemicals	-
28-2-0309	Dibutyl methylarsonodithiolite	OCW	B		
28-2-0310	Diethyl ethylarsonodithiolite	OCW	B		
28-2-0311	Dipropyl ethylarsonodithiolite	OCW	B		
28-2-0314	Dipropyl phenylarsonodithiolite	OCW	B		
28-2-0315	Dibutyl phenylarsonodithiolite	OCW	B		
28-2-0316	Triethyl arsenotrithiolite	DSX	A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
28-2-0317	Tripropyl arsenotrithiolite	DSX	A		
28-2-0319	Ethyl diphenylarsinothiolite	OCW	A	Old chemical weapons and related chemicals	-
28-2-0320	Propyl diphenylarsinothiolite	OCW	A		
28-2-0321	Butyl diphenylarsinothiolite	OCW	A		
31-2-0001	Bis(2-(tert-butyl)dimethylsilyloxy)ethylthioethyl)ether	NSX	A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
31-2-0002	Bis(2-(tert-butyl)dimethylsilyloxy)ethylthiomethyl)ether	NSX	A		
31-2-0003	N,N-Diethylethanimidamide	NS	A	Non-scheduled precursor or degradation product or known synthesis impurity or by-product related to Schedules 1.A.13, 1.A.14, or 1.A.15	NDP-N
31-2-0006	N,N-Diethylpropanimidamide	NS	A		

OPCW Code	Chemical Name	Schedule	Decision	Justification	Classification ²
31-2-0007	(Dimethyl(1,2,2-trimethylpropoxy)silyl)benzene	DSX	B	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
39-2-0001	N,N-Diethylethanimidamide	NS	A	Non-scheduled precursor or degradation product or known synthesis impurity or by-product related to Schedules 1.A.13, 1.A.14, or 1.A.15	NDP-N
39-2-0002	N-Ethyl-N-methylpropanimidamide	NS	A		

TABLE 3: LIST OF APPROVED NMR DATA ON NON-SCHEDULED CHEMICALS

OPCW Code	Chemical Name	Schedule	Decision	Justification
24-3-0110	Methyldichloroarsine	OCW	B	Old chemical weapons and related chemicals
24-3-0111	Methyldichloroarsine	OCW	B	
24-3-0112	Ethylidichloroarsine	OCW	B	
24-3-0113	Ethylidichloroarsine	OCW	B	
24-3-0115	Phenyldichloroarsine	OCW	B	
25-3-0013r	Benzyl bromide	OCW	A	
25-3-0014r	Benzyl bromide	OCW	A	
25-3-0015r	2-Methylbenzyl bromide	OCW	A	
25-3-0016r	2-Methylbenzyl bromide	OCW	A	
25-3-0017r	3-Methylbenzyl bromide	OCW	A	
25-3-0018r	3-Methylbenzyl bromide	OCW	A	
25-3-0019r	4-Methylbenzyl bromide	OCW	B	
25-3-0020r	4-Methylbenzyl bromide	OCW	A	
25-3-0037r	Ethyl bromoacetate	OCW	A	
25-3-0038r	Ethyl bromoacetate	OCW	A	
25-3-0039r	Ethyl iodoacetate	OCW	B	
25-3-0040r	Ethyl iodoacetate	OCW	A	

TABLE 4: LIST OF APPROVED GC(RI) DATA ON NON-SCHEDULED CHEMICALS

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

OPCW Code	Chemical Name	Schedule	Column	RI			Decision	Justification	Classification ³
				(a)	(b)	(c)			
05-4-0215	Pinacolyl heptafluorobutanoate	DSX	2	839			A		
07-4-2806	N,N-Dimethyl-N-(2-tert-butyl dimethylsilylthioethyl)amine	DSX	2	1349			A		
07-4-2807	N-Ethyl-N-methyl-N-(2-tert-butyl dimethylsilylthioethyl)amine	DSX	2	1422			A		
07-4-2808	N-Methyl-N-propyl-N-(2-tert-butyl dimethylsilylthioethyl)amine	DSX	2	1497			A		
07-4-2809	N-Isopropyl-N-methyl-N-(2-tert-butyl dimethylsilylthioethyl)amine	DSX	2	1498			A		
07-4-2810	N,N-Diethyl-N-(2-tert-butyl dimethylsilylthioethyl)amine	DSX	2	1482			A		
07-4-2811	N-Ethyl-N-propyl-N-(2-tert-butyl dimethylsilylthioethyl)amine	DSX	2	1555			A		
07-4-2812	N-Ethyl-N-isopropyl-N-(2-tert-butyl dimethylsilylthioethyl)amine	DSX	2	1541			A		
07-4-2813	N,N-Dipropyl-N-(2-tert-butyl dimethylsilylthioethyl)amine	DSX	2	1627			A		
07-4-2814	N-Isopropyl-N-propyl-N-(2-tert-butyl dimethylsilylthioethyl)amine	DSX	2	1613			A		
07-4-2815	N,N-Diisopropyl-N-(2-tert-butyl dimethylsilylthioethyl)amine	DSX	2	1599			A		

³ Justifications are provided for all approved GC(RI) data concerning non-scheduled chemicals. Classification, however, is required only when such data may be used for on-site missions. This requirement applies solely to NS (non-scheduled chemicals). All other categories (NSX, DSX, and OCW) do not require classification and are indicated with “_” in the relevant table cells.

OPCW Code	Chemical Name	Schedule	Column	RI			Decision	Justification	Classification ³
				(a)	(b)	(c)			
07-4-2816	N,N-Dimethyl-N-(2-tert-butyl dimethylsilyloxyethyl)amine	NSX	2	1155			A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
07-4-2817	N-Ethyl-N-methyl-N-(2-tert-butyl dimethylsilyloxyethyl)amine	DSX	2	1208			A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
07-4-2818	N-Methyl-N-propyl-N-(2-tert-butyl dimethylsilyloxyethyl)amine	DSX	2	1273			A		
07-4-2819	N-Isopropyl-N-methyl-N-(2-tert-butyl dimethylsilyloxyethyl)amine	DSX	2	1273			A		
07-4-2820	N,N-Diethyl-N-(2-tert-butyl dimethylsilyloxyethyl)amine	NSX	2	1261			A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
07-4-2821	N-Ethyl-N-propyl-N-(2-tert-butyl dimethylsilyloxyethyl)amine	DSX	2	1328			A		
07-4-2822	N-Ethyl-N-isopropyl-N-(2-tert-butyl dimethylsilyloxyethyl)amine	DSX	2	1316			A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
07-4-2823	N,N-Dipropyl-N-(2-tert-butyl dimethylsilyloxyethyl)amine	DSX	2	1396			A		
07-4-2824	N-Isopropyl-N-propyl-N-(2-tert-butyl dimethylsilyloxyethyl)amine	DSX	2	1384			A		
07-4-2825	N,N-Diisopropyl-N-(2-tert-butyl dimethylsilyloxyethyl)amine	DSX	2	1373			A		

OPCW Code	Chemical Name	Schedule	Column	RI			Decision	Justification	Classification ³
				(a)	(b)	(c)			
08-4-0061	O,O-Diethyl S-methyl phosphorothiolate	NS	1	1229			A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 2	NDP-2
08-4-0062	Diethyl methyl phosphate	NS	1	1066			A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 3	NDP-3
08-4-0063	2-(2-Chlorovinyl)-1,3,2-dithiarsole	DSX	1	1558			A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–
08-4-0064	O,O-Diethyl O-methyl phosphorothionate	NS	1	1112			A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 2	NDP-2
08-4-0065	2-(2-Chlorovinyl)-5-methyl-1,3,2-benzodithiarsole	DSX	1	2020			A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	–

OPCW Code	Chemical Name	Schedule	Column	RI			Decision	Justification	Classification ³
				(a)	(b)	(c)			
08-4-0066	O,O-Diethyl O-trimethylsilyl phosphorothionate	NS	1	1229			A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 2	NDP-2
08-4-0068	Diethyl trimethylsilyl phosphate	NS	1	1184			A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedules 1.A.01 or 1.A.02	NDP-G
08-4-0069	Dimethyl tert-butyl dimethylsilyl phosphate	NSX	1	1283			A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
08-4-0070	Diethyl tert-butyl dimethylsilyl phosphate	NSX	1	1386			A		
08-4-0071	tert-Butyl dimethylsilyl N,N-dimethylaminoethyl-2-sulfonate	NSX	1	1565			A		
08-4-0072	tert-Butyl dimethylsilyl N,N-diethylaminoethyl-2-sulfonate	NSX	1	1717			A		
08-4-0073	tert-Butyl dimethylsilyl N,N-diisopropylaminoethyl-2-sulfonate	NSX	1	1833			A		
08-4-0074	tert-Butyl dimethylsilyl N,N-dipropylaminoethyl-2-sulfonate	NSX	1	1865			A		
08-4-0080	Methyl N,N-dimethylaminoethyl-2-sulfonate	NSX	1	1218			A		
08-4-0081	Methyl N,N-diethylaminoethyl-2-sulfonate	NSX	1	1372			A		

OPCW Code	Chemical Name	Schedule	Column	RI			Decision	Justification	Classification ³
				(a)	(b)	(c)			
08-4-0082	Methyl N,N-diisopropylaminoethyl-2-sulfonate	NSX	1	1497			A		
08-4-0083	Methyl N,N-dipropylaminoethyl-2-sulfonate	NSX	1	1532			A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	
08-4-0087	Methyl tert-butyl dimethylsilyl N,N-diethylphosphoramidate	NSX	1	1475			A		
08-4-0089	Methyl tert-butyl dimethylsilyl N,N-dipropylphosphoramidate	NSX	1	1616			A		
08-4-0092	Ethyl tert-butyl dimethylsilyl N,N-diethylphosphoramidate	NSX	1	1516			A		
08-4-0101	2-Chlorobenzylidene malononitrile	NS	2	1554			A	Riot control agent as established in SAB-25/WP.1 (dated 27 March 2017)	
08-4-0157	Methyl N,N-diethylaminoethyl-2-sulfonate	NSX	2	1361			A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	
08-4-0159	tert-Butyl dimethylsilyl N,N-diethylaminoethyl-2-sulfonate	NSX	2	1692			A		
09-4-0047	N,N-Diisopropyl-N-(2-tert-butyl dimethylsilyloxyethyl)amine	DSX	1	1378			A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	

OPCW Code	Chemical Name	Schedule	Column	RI			Decision	Justification	Classification ³
				(a)	(b)	(c)			
16-4-0048	Diphenylchloroarsine	OCW	1	1813			A		
16-4-0049	Diphenylcyanoarsine	OCW	1	1868			A	Old chemical weapons and related chemicals	
16-4-0050	Triphenylarsine	OCW	1	2203			A		
16-4-0053	Propyl diphenylarsinothiolite	OCW	1	2111			A		
16-4-0054	Ethyl diphenylarsinothiolite	OCW	1	2029			A		
17-4-0049	2-Chloro-5-methyl-1,3,2-benzodithiarsole	DSX	1	1928			A		
17-4-0050	2-(2-Chlorovinyl)-5-methyl-1,3,2-benzodithiarsole	DSX	1	2029			A	-	
17-4-0072	Bis(2-chloroethyl)disulfide	NS	1	1402			A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 1.A.04	
17-4-0075	Bis(2-chloroethyl)trisulfide	NS	1	1640			B		NDP-H
17-4-0081	Methyl bis(2-chlorovinyl)arsinite	DSX	1	1240			A	Scheduled chemicals derivatised with degradation product or known synthesis impurity or by-product related to Schedule 1.A.05	
17-4-0082	Dimethyl (2-chlorovinyl)arsonite	DSX	1	1020			A		
17-4-0083	Trimethyl arsenite	DSX	1	825			A		
17-4-0087	Tetrakis(2-chlorovinyl)diarsoxane	NS	1	2064	2078	2094	A	NDP-L	

OPCW Code	Chemical Name	Schedule	Column	RI			Decision	Justification	Classification ³
				(a)	(b)	(c)			
17-4-0210	N-Ethyl-N,N-bis(2-trifluoroacetoxyethyl)amine	DSX	1	1152			A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	
17-4-0211	Bis(2-trifluoroacetoxyethyl)sulfide	DSX	1	1184			A		
17-4-0212	Tris(2-trifluoroacetoxyethyl)amine	DSX	1	1354			A		
17-4-0213	N,N-Diisopropyl-N-trifluoroacetoxyethylamine	DSX	1	1055			A		
17-4-0214	N-2-(Heptafluorobutyryloxyethyl)-N,N-diisopropylamine	DSX	1	1110			A		
17-4-0215	N-Ethyl-N,N-bis(2-heptafluorobutyryloxyethyl)amine	DSX	1	1252			A		
17-4-0216	Tris(2-heptafluorobutyryloxyethyl)amine	DSX	1	1460			A		
17-4-0217	Bis(2-heptafluorobutyryloxyethyl)sulfide	DSX	1	1291			A		
17-4-0218	N-2-(Heptafluorobutyryloxyethyl)-N,N-dimethylamine	NSX	1	861			A		
17-4-0219	N,N-Diethyl-N-heptafluorobutyryloxyethylamine	NSX	1	993			A		Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions
17-4-0220	N-Ethyl-N-heptafluorobutyryloxyethyl-N-methylamine	DSX	1	929			A		
17-4-0221	N-2-(Heptafluorobutyryloxyethyl)-N-methyl-N-propylamine	DSX	1	1002			A		
17-4-0222	N-Ethyl-N-heptafluorobutyryloxyethyl-N-propylamine	DSX	1	1065			A		
17-4-0223	N-2-(Heptafluorobutyryloxyethyl)-N-isopropyl-N-methylamine	DSX	1	1003			A		
17-4-0224	N-Ethyl-N-heptafluorobutyryloxyethyl-N-isopropylamine	DSX	1	1054			A		

OPCW Code	Chemical Name	Schedule	Column	RI			Decision	Justification	Classification ³
				(a)	(b)	(c)			
17-4-0227	N,N-Bis(2-heptafluorobutyryloxyethyl)-N-methylamine	DSX	1	1196			A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
17-4-0230	Pinacolyl heptafluorobutanoate	DSX	1	849			A		
17-4-0436	Tris(2-tert-butyl dimethylsilyloxyethyl)amine	DSX	1	2266			A		
19-4-0013	Diphenylchloroarsine	OCW	1	1827			A	Old chemical weapons and related chemicals	-
19-4-0014	Diphenylcyanoarsine	OCW	1	1882			A		
19-4-0017	Benzyl bromide	OCW	1	1100			A		
24-4-0014r	Bis(2-chloroethyl)disulfide	NS	1	1401			A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 1.A.04	NDP-H
24-4-0049r	Diethyl methyl phosphate	NS	1	1069			A	Non-scheduled degradation product or known synthesis impurity or by-product related to Schedule 3	NDP-3
24-4-0052r	Methyldichloroarsine	OCW	1	802			A		
24-4-0053r	Ethyldichloroarsine	OCW	1	900			A		
24-4-0055r	10-Chloro-5,10-dihydrophenarsazine	OCW	1	2412			A	Old chemical weapons and related chemicals	-
24-4-0058r	Ethyl iodoacetate	OCW	1	993			A		
24-4-0059r	Ethyl bromoacetate	OCW	1	910			A		
24-4-0060r	Phosgene oxime	OCW	1	1060			A		

OPCW Code	Chemical Name	Schedule	Column	RI			Decision	Justification	Classification ³
				(a)	(b)	(c)			
24-4-0061r	2-Methylbenzyl bromide	OCW	1	1209			A	Old chemical weapons and related chemicals	-
24-4-0062r	3-Methylbenzyl bromide	OCW	1	1206			A		
24-4-0063r	4-Methylbenzyl bromide	OCW	1	1213			A		
28-4-0290	Bis(2-tert-butyl dimethylsilyloxyethyl)sulfide	DSX	1	1871			B	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
28-4-0291	Bis(2-tert-butyl dimethylsilyloxyethyl)disulfide	NSX	1	2091			A		
28-4-0292	Bis(2-tert-butyl dimethylsilyloxyethyl) methane	NSX	1	2236			B	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
28-4-0293	1,2-Bis(2-tert-butyl dimethylsilyloxyethyl)ethane	NSX	1	2358			A		
28-4-0294	1,3-Bis(2-tert-butyl dimethylsilyloxyethyl)propane	NSX	1	2463			A		
28-4-0295	1,4-Bis(2-tert-butyl dimethylsilyloxyethyl)butane	NSX	1	2587			A		
28-4-0296	1,5-Bis(2-tert-butyl dimethylsilyloxyethyl)pentane	NSX	1	2696			A		
28-4-0311	Dipropyl methylarsonodithiolite	OCW	1	1454			B		
28-4-0312	Dibutyl methylarsonodithiolite	OCW	1	1646			B		
28-4-0313	Diethyl ethylarsonodithiolite	OCW	1	1362			B		
28-4-0314	Dipropyl ethylarsonodithiolite	OCW	1	1536			B		
28-4-0317	Dipropyl phenylarsonodithiolite	OCW	1	2000			B	Old chemical weapons and related chemicals	-
28-4-0318	Dibutyl phenylarsonodithiolite	OCW	1	2189			B		

OPCW Code	Chemical Name	Schedule	Column	RI			Decision	Justification	Classification ³
				(a)	(b)	(c)			
28-4-0319	Triethyl arsenotrithiolite	DSX	1	1628			A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
28-4-0320	Tripropyl arsenotrithiolite	DSX	1	1885			A		
28-4-0322	Ethyl diphenylarsinothiolite	OCW	1	2021			A	Old chemical weapons and related chemicals	-
28-4-0323	Propyl diphenylarsinothiolite	OCW	1	2106			A		
28-4-0324	Butyl diphenylarsinothiolite	OCW	1	2203			A		
31-4-0001	Bis(2-(tert-butyl dimethylsilyloxy)ethylthioethyl)ether	NSX	2	2627			A	Non-scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-
31-4-0002	Bis(2-(tert-butyl dimethylsilyloxy)ethylthiomethyl)ether	NSX	2	2388			A		
31-4-0003	N,N-Diethylethanimidamide	NS	2	973			A	Non-scheduled precursor or degradation product or known synthesis impurity or by-product related to Schedules 1.A.13, 1.A.14, or 1.A.15	NPD-N
31-4-0006	N,N-Diethylpropanimidamide	NS	2	1055			A		
31-4-0007	(Dimethyl(1,2,2-trimethylpropoxy)silyl)benzene	DSX	2	1369			A	Scheduled chemicals derivatised with derivatisation agents not approved for on-site missions	-

OPCW Code	Chemical Name	Schedule	Column	RI			Decision	Justification	Classification ³
				(a)	(b)	(c)			
39-4-0001	N,N-Diethylethanimidamide	NS	1	980			A	Non-scheduled precursor or degradation product or known synthesis impurity or by-product related to Schedules 1.A.13, 1.A.14, or 1.A.15	NPD-N
39-4-0002	N-Ethyl-N-methylpropanimidamide	NS	1	1007			A		

Annex 3

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