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ENGLISH only

NOTE BY THE TECHNICAL SECRETARIAT**REPORT OF THE SIXTIETH MEETING OF THE VALIDATION GROUP FOR
THE UPDATING OF THE OPCW CENTRAL ANALYTICAL DATABASE
17 AND 18 SEPTEMBER 2025**

1. The Validation Group met on 17 and 18 September 2025 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. The evaluators for the analytical techniques evaluated new data and reported to the coordinators for each analytical technique. The names of the coordinators, along with the technique for which each was responsible, are listed 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. Mr Johannes Heikkinen (Finland) joined the Validation Group and was acknowledged and welcomed by the existing members. Mr Keunhong Jeong (Republic of Korea) and Mr Aleksander Fleer (Russian Federation) were present as observers.
4. The Validation Group continues to actively recruit new members. Nominations for membership are welcomed from any member of the chemical sciences community with recognised expertise in the field of analytical chemistry. Prospective members are not required to work for an OPCW designated laboratory. Nominations are provided to the OPCW Technical Secretariat (the Secretariat) by the nominee's National Authority and must include a curriculum vitae confirming their expertise.
5. During the fifty-eighth meeting of the Validation Group, the Group decided to review approximately 350 previously evaluated data sets on non-scheduled chemicals not yet sent for approval by the OPCW Executive Council. This review started during the



fifty-ninth meeting, focusing on IR and NMR data of compounds with previously accepted and distributed MS and GC(RI) data. The review of previously evaluated data continued during the current meeting, and data deemed appropriate by the Group were recommended for inclusion in the OCAD. The Group will additionally focus on 112 postponed GC(RI) data sets during the next Validation Group meeting.

6. The Group summarised progress on updates to the documents “Rules for Naming Compounds in the OCAD” and “Procedures for the Evaluation of Data to Be Included in the OPCW Central Analytical Database”. The Group recommended that the current version of the naming rules be used in the next OCAD distribution. It further decided to continue the review of the evaluation procedures, with subgroup coordinators taking the lead on those efforts and being responsible for providing a technical review (in coordination with subgroup members) to the Validation Group Chairperson by 31 December 2025.
7. The Group discussed progress on submission template drafting. Mr Patrick Mornane (Australia) provided an overview of the initial templates and how the Group can help support their further development. The Validation Group Chairperson requested that subgroups discuss the current template versions during this meeting, time permitting. Subgroup coordinators agreed to collaborate within their subgroups to finalise these templates and submit them to the Validation Group Chairperson by 31 December 2025.
8. The Group decided to establish a new temporary working subgroup responsible for the modernisation of various aspects of the OCAD, data submission, and data evaluation. This “Modernisation Temporary Working Subgroup” will be initially responsible for finalising data submission templates. The working subgroup members will also be responsible for ensuring that the submission and evaluation procedures are regularly reviewed along with chemical naming rules and technique-specific data needs. As these initial efforts are consolidated, the subgroup’s scope will gradually expand to include NMR and IR metadata digitisation. Mr Mornane was nominated and elected by the Group to serve as the Coordinator of the Modernisation Temporary Working Subgroup. Additional members will be invited to join the subgroup before the sixty-first meeting of the Validation Group.
9. The Group discussed how it can assist the OPCW in its chemical forensics efforts, including discussing the report recently issued by the Scientific Advisory Board’s Temporary Working Group (TWG) on Chemical Forensics (SAB-40/WP.2, dated 27 August 2025). The Group agreed to support future chemical forensics efforts by engaging in discussions with the TWG, the Secretariat, and other stakeholders on an as-needed basis to provide technical expertise and perspectives. The Group recommended that the structure of neither the OCAD nor the Validation Group Working Database be modified to include chemical forensics data at this time.
10. The IR subgroup reviewed recently digitised data from older IR data already included in the OCAD. All the digitised data were accepted after subgroup review, pending one minor correction.

11. The Group recommended that Validation Group membership be re-evaluated if a member does not attend a Validation Group meeting (either in person or online), does not provide an evaluation, or does not communicate with OPCW Laboratory staff or the Validation Group Chairperson over a two-year period. After that time (approximately after four Validation Group meetings), that member will be contacted directly by the OPCW Laboratory and Validation Group Chairperson to enquire about their interest in continuing to serve on the Group. If there is no response after six months, the discontinuation of their Validation Group membership will be recommended. The Group further recommended that the OPCW provide clarity on an appropriate procedure for discontinuation of membership since appointment to the Group requires an official National Authority nomination via a note verbale.
12. The Group decided to extend the duration of the sixty-first meeting of the Validation Group to three days to ensure sufficient time to discuss added Validation Group efforts, finalise submission templates, and provide final data evaluations.
13. The coordinators provided an evaluation summary of the data submitted to the Validation Group for discussion at the meeting. The evaluators finalised their evaluation of the analytical data and confirmed that the approved data were technically valid.
14. Annex 1 to this Note presents the sets of validated analytical data on scheduled chemicals recommended for inclusion in the OCAD. Validated analytical data on non-scheduled chemicals relevant to the Convention recommended for inclusion in the OCAD are found in Annex 2 to this Note. Annex 3 lists the members and evaluators of the Validation Group.
15. The available data from all analytical techniques should be sent to the Validation Group at least six weeks before its next scheduled meeting, which is proposed to take place from 8 to 10 April 2026 at the OPCW Centre for Chemistry and Technology (ChemTech Centre). The evaluators agreed to send their evaluation reports to the appointed coordinators no later than 27 March 2026, to provide their individual data evaluations prior to the meeting, and to come to the meeting prepared to finalise the evaluation of the analytical data provided to the Group. If travel to the ChemTech Centre is not possible, the evaluators may meet virtually.

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
07-2-3627	Methyl N-(1-(dimethylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3628	Methyl N-(1-(ethylmethylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3630	Methyl N-(1-(methylpropylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3631	Methyl N-(1-(isopropylmethylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3632	Methyl N-(1-(diethylamino)propylidene)phosphoramidofluoridate	1.A.14	A
07-2-3633	Methyl N-(1-(dipropylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3634	Methyl N-(1-(diisopropylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3635	Methyl N-(1-(diethylamino)butylidene)phosphoramidofluoridate	1.A.14	A
07-2-3636	Methyl N-(1-(diethylamino)isobutylidene)phosphoramidofluoridate	1.A.14	A
07-2-3637	Methyl N-(1-(dibutylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3638	Methyl N-(1-(dipropylamino)butylidene)phosphoramidofluoridate	1.A.14	A
07-2-3639	Methyl N-(1-(dibutylamino)butylidene)phosphoramidofluoridate	1.A.14	A
07-2-3640	Methyl N-(1-(diethylamino)decylidene)phosphoramidofluoridate	1.A.14	A
07-2-3642	Methyl N-(1-(dioctylamino)butylidene)phosphoramidofluoridate	1.A.14	A
07-2-3643	Ethyl N-(1-(dimethylamino)ethylidene)phosphoramidofluoridate	1.A.14	A

OPCW Code	Chemical Name	Schedule	Decision
07-2-3644	Ethyl N-(1-(ethylmethylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3646	Ethyl N-(1-(methylpropylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3647	Ethyl N-(1-(isopropylmethylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3648	Ethyl N-(1-(diethylamino)propylidene)phosphoramidofluoridate	1.A.14	A
07-2-3649	Ethyl N-(1-(dipropylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3650	Ethyl N-(1-(diisopropylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3651	Ethyl N-(1-(diethylamino)butylidene)phosphoramidofluoridate	1.A.14	A
07-2-3652	Ethyl N-(1-(diethylamino)isobutylidene)phosphoramidofluoridate	1.A.14	A
07-2-3653	Ethyl N-(1-(dibutylamino)ethylidene)phosphoramidofluoridate	1.A.14	A
07-2-3654	Ethyl N-(1-(dipropylamino)butylidene)phosphoramidofluoridate	1.A.14	A
07-2-3655	Ethyl N-(1-(dibutylamino)butylidene)phosphoramidofluoridate	1.A.14	A
07-2-3656	Ethyl N-(1-(diethylamino)decylidene)phosphoramidofluoridate	1.A.14	A
07-2-3657	Ethyl N-(1-(dipropylamino)decylidene)phosphoramidofluoridate	1.A.14	A
07-2-3658	Ethyl N-(1-(dioctylamino)butylidene)phosphoramidofluoridate	1.A.14	A

TABLE 2: 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)	Decision
07-4-3490	Methyl N-(1-(dimethylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1482	A
07-4-3491	Methyl N-(1-(ethylmethylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1531	A
07-4-3493	Methyl N-(1-(methylpropylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1611	A
07-4-3494	Methyl N-(1-(isopropylmethylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1588	A
07-4-3495	Methyl N-(1-(diethylamino)propylidene)phosphoramidofluoridate	1.A.14	2	1593	A
07-4-3496	Methyl N-(1-(dipropylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1717	A
07-4-3497	Methyl N-(1-(diisopropylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1653	A
07-4-3498	Methyl N-(1-(diethylamino)butylidene)phosphoramidofluoridate	1.A.14	2	1639	A
07-4-3499	Methyl N-(1-(diethylamino)isobutylidene)phosphoramidofluoridate	1.A.14	2	1626	A
07-4-3500	Methyl N-(1-(dibutylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1891	A
07-4-3501	Methyl N-(1-(dipropylamino)butylidene)phosphoramidofluoridate	1.A.14	2	1767	A
07-4-3502	Methyl N-(1-(dibutylamino)butylidene)phosphoramidofluoridate	1.A.14	2	1931	A
07-4-3503	Methyl N-(1-(diethylamino)decylidene)phosphoramidofluoridate	1.A.14	2	2199	A
07-4-3505	Methyl N-(1-(dioctylamino)butylidene)phosphoramidofluoridate	1.A.14	2	2680	A
07-4-3506	Ethyl N-(1-(dimethylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1545	A
07-4-3507	Ethyl N-(1-(ethylmethylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1590	A
07-4-3509	Ethyl N-(1-(methylpropylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1669	A
07-4-3510	Ethyl N-(1-(isopropylmethylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1645	A
07-4-3511	Ethyl N-(1-(diethylamino)propylidene)phosphoramidofluoridate	1.A.14	2	1649	A

OPCW Code	Chemical Name	Schedule	Column	RI(a)	Decision
07-4-3512	Ethyl N-(1-(dipropylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1770	A
07-4-3513	Ethyl N-(1-(diisopropylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1705	A
07-4-3514	Ethyl N-(1-(diethylamino)butylidene)phosphoramidofluoridate	1.A.14	2	1692	A
07-4-3515	Ethyl N-(1-(diethylamino)isobutylidene)phosphoramidofluoridate	1.A.14	2	1678	A
07-4-3516	Ethyl N-(1-(dibutylamino)ethylidene)phosphoramidofluoridate	1.A.14	2	1941	A
07-4-3517	Ethyl N-(1-(dipropylamino)butylidene)phosphoramidofluoridate	1.A.14	2	1817	A
07-4-3518	Ethyl N-(1-(dibutylamino)butylidene)phosphoramidofluoridate	1.A.14	2	1978	A
07-4-3519	Ethyl N-(1-(diethylamino)decylidene)phosphoramidofluoridate	1.A.14	2	2241	A
07-4-3520	Ethyl N-(1-(dipropylamino)decylidene)phosphoramidofluoridate	1.A.14	2	2352	A
07-4-3521	Ethyl N-(1-(dioctylamino)butylidene)phosphoramidofluoridate	1.A.14	2	2719	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: LIST OF APPROVED NMR DATA ON NON-SCHEDULED CHEMICALS¹

OPCW Code	Chemical Name	Schedule	Decision	Justification
24-3-0029	Divinylsulfoxide ²	NS	A	Reaction byproduct, precursor, or degradation product of 1.A.04
24-3-0030	N-(2-Hydroxyethyl)thiomorpholine ²	NS	B	
24-3-0031	N-(2-Hydroxyethyl)thiomorpholine ²	NS	A	
24-3-0032	Bis(2-chloroethyl)disulfide	NS	B	
24-3-0033	Bis(2-chloroethyl)disulfide	NS	B	
24-3-0035	2-Chlorobenzylidene malononitrile ²	NS	B	Riot control agent as established in SAB-25/WP.1 (dated 27 March 2017)
24-3-0036	Bis(2-N,N-diethylaminoethyl)sulfide ²	NS	B	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0037	Bis(2-N,N-diethylaminoethyl)sulfide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0039	Bis(2-N,N-diethylaminoethyl)disulfide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0040	Bis(2-N,N-diisopropylaminoethyl)sulfide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.03

¹ Data previously evaluated during the twenty-second, twenty-third, twenty-fourth, twenty-eighth, and thirtieth meetings of the Validation Group and re-evaluated during the sixtieth meeting of the Validation Group.

² Chemical accepted into OCAD_v20_2018 as MS data and GC(RI) data (EC-86/DEC.10, dated 13 October 2017).

OPCW Code	Chemical Name	Schedule	Decision	Justification
24-3-0041	Bis(2-N,N-diisopropylaminoethyl)sulfide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0042	Bis(2-N,N-diisopropylaminoethyl)disulfide ²	NS	B	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0043	Bis(2-N,N-diisopropylaminoethyl)disulfide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0044	Bis(2-N,N-dimethylaminoethyl)sulfide ²	NS	B	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0045	Bis(2-N,N-dimethylaminoethyl)sulfide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0046	Bis(2-N,N-dimethylaminoethyl)disulfide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0047	Bis(2-N,N-dimethylaminoethyl)disulfide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0048	Bis(2-N,N-dipropylaminoethyl)sulfide ²	NS	B	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0049	Bis(2-N,N-dipropylaminoethyl)sulfide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0051	Bis(2-N,N-dipropylaminoethyl)disulfide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.03
24-3-0052	2-Chloroethyl 2-hydroxyethyl sulfide ²	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0053	2-Chloroethyl 2-hydroxyethyl sulfide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0069	1,3-Bis(2-hydroxyethylthio)propane	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0070	1,4-Bis(2-hydroxyethylthio)butane	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0071	1,4-Bis(2-hydroxyethylthio)butane	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04

OPCW Code	Chemical Name	Schedule	Decision	Justification
24-3-0072	1,5-Bis(2-hydroxyethylthio)pentane	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0073	1,5-Bis(2-hydroxyethylthio)pentane	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0074	Bis(2-hydroxyethylthiomethyl)ether	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0075	Bis(2-hydroxyethylthiomethyl)ether	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0086	Bis(2-hydroxyethylsulfonyl)methane	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0087	Bis(2-hydroxyethylsulfonyl)methane	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0090	1,3-Bis(2-hydroxyethylsulfonyl)propane	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0091	1,3-Bis(2-hydroxyethylsulfonyl)propane	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0094	1,4-Bis(2-hydroxyethylsulfonyl)butane	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0095	1,4-Bis(2-hydroxyethylsulfonyl)butane	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0098	1,5-Bis(2-hydroxyethylsulfonyl)pentane	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0099	1,5-Bis(2-hydroxyethylsulfonyl)pentane	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
24-3-0104	Diethyl phosphoric acid	NS	A	Reaction byproduct, precursor, or degradation product of 1.A.03
24-3-0105	Diethyl phosphoric acid	NS	A	Reaction byproduct, precursor, or degradation product of 1.A.03
24-3-0106	Diethyl phosphoric acid	NS	B	Reaction byproduct, precursor, or degradation product of 1.A.03

OPCW Code	Chemical Name	Schedule	Decision	Justification
24-3-0121	Diphosgene	NS	A	Reaction by-product, precursor, or degradation product of 3.A.01
24-3-0123	Triphosgene	NS	A	Reaction by-product, precursor, or degradation product of 3.A.01
25-3-0001r	Capsaicin ²	NS	A	Riot control agent as established in SAB-25/WP.1 (dated 27 March 2017)
25-3-0002r	Capsaicin ²	NS	A	Riot control agent as established in SAB-25/WP.1 (dated 27 March 2017)
25-3-0003r	Pelargonic acid vanillylamide ²	NS	B	Riot control agent as established in SAB-25/WP.1 (dated 27 March 2017)
25-3-0004r	Pelargonic acid vanillylamide ²	NS	A	Riot control agent as established in SAB-25/WP.1 (dated 27 March 2017)
25-3-0005r	1,4-Dithiane ²	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0006r	1,4-Dithiane ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0007r	1,4-Oxathiane ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0008r	1,4-Oxathiane ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0009r	Ethyl phosphorocyanidic acid	NS	B	Reaction by-product, precursor, or degradation product of 1.A.02
25-3-0010r	Ethyl phosphorocyanidic acid	NS	B	Reaction by-product, precursor, or degradation product of 1.A.02
25-3-0011r	Ethyl phosphorocyanidic acid	NS	B	Reaction by-product, precursor, or degradation product of 1.A.02

OPCW Code	Chemical Name	Schedule	Decision	Justification
25-3-0012r	Ethyl phosphorocyanidic acid	NS	B	Reaction by-product, precursor, or degradation product of 1.A.02
25-3-0021r	2-Chloroacetophenone ²	NS	A	Riot control agent as established in SAB-25/WP.1 (dated 27 March 2017)
25-3-0022r	2-Chloroacetophenone ²	NS	B	Riot control agent as established in SAB-25/WP.1 (dated 27 March 2017)
25-3-0023r	Divinylsulfone ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0024r	Divinylsulfone ²	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0025r	1,2-Bis(2-hydroxyethylthio)ethane ³	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0026r	1,2-Bis(2-hydroxyethylthio)ethane ³	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0027r	Bis(2-hydroxyethylthioethyl)ether ³	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0028r	Bis(2-hydroxyethylthioethyl)ether ³	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0029r	Bis(2-chloroethyl)sulfoxide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0030r	Bis(2-chloroethyl)sulfoxide ²	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0031r	Bis(2-hydroxyethyl)sulfoxide ³	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0032r	Bis(2-hydroxyethyl)sulfoxide ³	NS	A	Reaction by-product, precursor, or degradation product of 1.A.04

OPCW Code	Chemical Name	Schedule	Decision	Justification
25-3-0033r	Bis(2-chloroethyl)sulfone ²	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0034r	Bis(2-chloroethyl)sulfone ²	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0035r	Bis(2-hydroxyethyl)sulfone	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04
25-3-0036r	Bis(2-hydroxyethyl)sulfone	NS	B	Reaction by-product, precursor, or degradation product of 1.A.04

Annex 3

LIST OF MEMBERS OF THE VALIDATION GROUP

Name	Country	Address	Phone/Fax/Email	Speciality
Christine Albaret	France	DGA Maîtrise NRBC BP-3 91710 Vert-le-Petit, France	+33 1 69908224 +33 1 64935266 christine.albaret@intradef.gouv.fr	NMR
Armando Alcaraz*	United States of America	Lawrence Livermore National Laboratory Forensic Science Center P.O. Box 808, L-090 Livermore, CA 94550 United States of America	+1 925 423 6889 +1 925 423 9014 (fax) alcaraz1@llnl.gov	MS, IR, Coordinator of the IR subgroup
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Havva Bekiroğlu Atas*	Türkiye	Chemical Warfare Agents Diagnosis & Verification Laboratory (NPHRL) Department of Public Health Reference Laboratories Ministry of Health, General Directorate of Public Health Adnan Saygun Avenue, No:55, 06430, Ankara, Türkiye	+90312 565 60 62 +90312 565 51 71 (fax) havva.atas@saglik.gov.tr	MS
Marc-Michael Blum*	Germany	Blum - Scientific Services Björnsonweg 70d 22587 Hamburg, Germany	+49 40 800 103 62 +49 151 22 567 554 mdblum@blum-scientific.de	GC(RI), Coordinator of the GC(RI) subgroup

*

The evaluator was present at this meeting of the Validation Group (either in person or virtually) and provided a written evaluation.

†

The evaluator provided a written evaluation but did not attend the meeting.

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