



Synthetic Drug Analysis

Test No. 21-5041 Summary Report

Each sample pack consisted of two questioned samples, with Item 1 consisting of two blotter paper squares and Item 2 consisting of a single tablet, which participants were requested to analyze. Data were returned from 54 participants and are compiled into the following tables:

Report Contents:	<u>Page</u>
<u>Manufacturer's Information</u>	<u>2</u>
<u>Summary Comments</u>	<u>3</u>
<u>Table 1a: Synthetic Drug Analysis (Item 1)</u>	<u>4</u>
<u>Table 1b: Examination Methods (Item 1)</u>	<u>7</u>
<u>Table 2a: Synthetic Drug Analysis (Item 2)</u>	<u>9</u>
<u>Table 2b: Examination Methods (Item 2)</u>	<u>12</u>
<u>Table 3: Additional Comments</u>	<u>14</u>
<u>Appendix: Data Sheet</u>	

This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option how the samples are to be used (e.g., training exercise, known or blind proficiency testing, research and development of new techniques, etc.), the results compiled in the Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the profession.

Participant results are reported using a randomly assigned "WebCode". This code maintains participant's anonymity, provides linking of the various report sections, and will change with every report.

Manufacturer's Information

Each sample pack consisted of two items. Item 1 contained two paper tabs each dosed with approximately 1 mg of 25I-NBOMe hydrochloride, a synthetic phenethylamine. Item 2 contained a single tablet consisting of approximately 260 mg of Firmapress powder. The 25I-NBOMe hydrochloride is a Schedule I controlled substance in the United States.

SAMPLE PREPARATION-

The 25I-NBOMe hydrochloride in Item 1 was a pure powder that was dissolved in 70% ethanol. The solution was covered and mixed thoroughly to ensure homogeneity. The Firmapress powder in Item 2 was a powder consisting of high-quality excipients.

ITEM 1 (PREPARATION): A total of 50 μ L of ethanol containing approximately a 1 mg dose of 25I-NBOMe hydrochloride was dispensed onto each paper tab and allowed to dry. Two tabs were then placed into a glassine bag which was folded and secured with a label. The folded glassine bag was placed into a small zip top bag, which was heat sealed and then placed into a pre-labeled envelope.

ITEM 2 (PREPARATION): Using a tablet press, tablets were created using Firmapress powder. The average mass of each tablet was approximately 260 mg. Each tablet was examined for shape and hardness. One tablet was deposited into a glassine bag which was folded and secured with a label. The folded glassine bag was placed into a small zip top bag, which was heat sealed and then placed into a pre-labeled envelope.

SAMPLE PACK ASSEMBLY: One of each of the Item 1 and Item 2 envelopes was placed into a larger pre-labeled sample pack envelope.

VERIFICATION: The above substances were identified by predistribution laboratories, who used the following combined list of techniques: color tests, FTIR, GC, and GC/MS.

<u>Item</u>	<u>Substance</u>
Item 1	25I-NBOMe (Phenethylamine)
Item 2	No Synthetic Substance

Summary Comments

This test was designed to allow participants to assess their proficiency in the qualitative analysis of questioned samples that may contain synthetic substances. Item 1 consisted of two blotter paper tabs each dosed with approximately 1 mg of 25I-NBOMe hydrochloride, a synthetic phenethylamine. Item 2 consisted of a single tablet with approximately 260 mg of Firmapress powder. In the United States, 25I-NBOMe hydrochloride is a Schedule I controlled substance (See Manufacturer's Information for preparation details).

All 54 participants reported 25I-NBOMe (also known as 2C-I-NBOMe) was found in Item 1. Two participants that reported 25I-NBOMe also reported finding additional synthetic substances. For Item 2, 53 of 54 participants (99.5%) reported that no synthetic substances were identified. One participant reported that a synthetic drug was identified and listed "Thaiamine (Vitamin B1)".

The most common examination methods reported for both items include GC/MS, color tests, FTIR, and UV.

Synthetic Drug Analysis (Item 1)

TABLE 1a - Item 1 Results
Item Contents: 25I-NBOMe (Phenethylamine)

WebCode	Synthetic Drug Group Detected	Synthetic Drug Detected
28XLUE	Phenethylamine	25I-NBOMe
2D8G2A	Phenethylamine	25 I-NBOMe
2TLPX8	Phenethylamine	25I-NBOMe
3WF4X2	Phenethylamine	25I-NBOMe and 2C-I
4DGBP9	Phenethylamine	25I-NBOMe
4MLH69	Phenethylamine	25I-NBOMe
6RXMF9	Phenethylamine	25I-NBOMe
7NBNH6	Phenethylamine	25I-NBOMe
973FC2	Phenethylamine	25I-NBOME
9EDHX3	Phenethylamine	2,5I-NBOMe
9PD342	Phenethylamine	25I-NBOMe
9Y2Y2V	Phenethylamine	25I-NBOMe
B2HZ2Z	Phenethylamine	25I-NBOMe
B6234Y	Phenethylamine	25I-NBOMe (25I-NB2OMe)
B6HBWZ	Phenethylamine	25I-NBOMe
B7XD49	Phenethylamine	25I-NBOMe
BAVW2Z	Phenethylamine	25I-NBOMe
DWMTVW	Phenethylamine	25I-NBOMe
ECAUKY	Synthetic substance(s) detected/identified	25I-NBOMe
FFMUGQ	Phenethylamine	25I-NBOMe
FPCK2X	Phenethylamine	25I-NBoMe
FYJFZW	Phenethylamine	25I-NBOMe
FZT6LU	Synthetic substance(s) detected/identified	25I-NBOMe
GRVWW	Phenethylamine	25I-NBOMe
GWPRH2	Phenethylamine	25I-NBOMe
HB3GVU	Phenethylamine	25I-NBOMe

TABLE 1a - Item 1 Results
Item Contents: 25I-NBOMe (Phenethylamine)

WebCode	Synthetic Drug Group Detected	Synthetic Drug Detected
HJWURM	Synthetic substance(s) detected/identified	25I-NBOMe
J38YUQ	Phenethylamine	2C-I-NBOMe
K8FL4L	Phenethylamine	25I-NBOMe (2,5-Dimethoxy-4-iodo-N-(2-methoxybenzyl)phenethylamine or 2C-I-NBOMe)
KCQYLJ	Phenethylamine	25I-NBOMe
KXTLPW	Phenethylamine	M-OMB ME, 2CI, 25I-NBO ME
L3FXZJ	Phenethylamine	25I-NBOMe
NENCYM	Phenethylamine	25I-NBOMe
P7NCZL	Phenethylamine	25I-NBOMe
PFG9UC	Phenethylamine	25I-NBOMe
Q8XNDG	Synthetic substance(s) detected/identified	25I-NBOMe
QLH77K	Phenethylamine	2C-I-NBOMe
QZDNVH	Phenethylamine	25I-NBOMe
R6QQGE	Phenethylamine	25I-NBOMe (2,5-Dimethoxy-4-iodo-N-(2-methoxybenzyl)phenethylamine or 2C-I-NBOMe) and 25H-BOMe (2-(2,5-dimethoxyphenyl)-N-(2-methoxybenzyl)ethanamine)
RJKDLL	Phenethylamine	25I-NBOMe (25I-NB2OMe)
RTBV2E	Phenethylamine	25I-NBOMe
TKEHFK	Phenethylamine	25I-NBOMe
U7CAFG	Phenethylamine	25I-NBOMe
UH9Y47	Phenethylamine	25I-NBOMe
UPKBAF	Phenethylamine	25I-NBOMe
VHKAPF	Phenethylamine	25I-NBOME
VW7QDD	Phenethylamine	25I-NBOMe
WWBZHF	Phenethylamine	25I-NBOMe
XGGTZ8	Phenethylamine	25I-NBOMe
XGZCAL	Phenethylamine	25I-NBOMe
XQP6GB	Phenethylamine	25I-NBOMe

TABLE 1a - Item 1 Results
Item Contents: 25I-NBOMe (Phenethylamine)

WebCode	Synthetic Drug Group Detected	Synthetic Drug Detected
YVBE6E	Phenethylamine	25I-NBOMe
YZQ6AA	Phenethylamine	25I-NBOMe
Z4K4HD	Phenethylamine	25I-NBOMe (25I-NB2OMe)

<i>Response Summary - Item 1</i>		
Participants: 54		
Synthetic Drug Group Detected:	Phenethylamine:	50
	Synthetic substance(s) detected/identified:	4
Synthetic Drug Detected:	Synthetic Drug - 25I-NBOMe:	54
	Reported additional synthetic drugs in their response:	2

Examination Methods (Item 1)

TABLE 1b

WebCode	Color	FTIR	LC	UV	GC	TLC	LC/MS	Raman	GC/MS	Other
28XLUE									✓	NMR
2D8G2A									✓	
2TLPX8				✓					✓	
3WF4X2		✓	✓	✓					✓	
4DGBP9									✓	
4MLH69					✓				✓	
6RXMF9							✓		✓	
7NBNH6		✓							✓	
973FC2									✓	
9EDHX3									✓	
9PD342		✓							✓	Fluorescence Test
9Y2Y2V			✓	✓					✓	Balance
B2HZ2Z									✓	
B6234Y	✓								✓	GC-IRD
B6HBWZ	✓								✓	
B7XD49					✓				✓	
BAVW2Z									✓	
DWMTVW	✓								✓	fluorescence test
ECAUKY	✓								✓	
FFMUGQ		✓	✓	✓		✓			✓	
FPCK2X									✓	GC-IR
FYJFZW		✓							✓	
FZT6LU									✓	
GRVVV	✓								✓	
GWPRH2									✓	long wave UV light viewing system
HB3GVU	✓								✓	
HJWURM			✓						✓	Electronic balance and/or mechanical scale
J38YUQ			✓	✓					✓	
K8FL4L	✓			✓	✓				✓	
KCQYLJ				✓					✓	
KXTLPW		✓							✓	
L3FXZJ			✓						✓	
NENCYM	✓								✓	
P7NCZL	✓			✓					✓	
PFG9UC									✓	

TABLE 1b - Item 1

WebCode	Color	FTIR	LC	UV	GC	TLC	LC/MS	Raman	GC/MS	Other
Q8XNDG	✓								✓	
QLH77K		✓							✓	
QZDNVH									✓	
R6QQGE	✓			✓	✓				✓	
RJKDLL	✓								✓	GC-IRD
RTBV2E	✓				✓				✓	
TKEHFK					✓				✓	
U7CAFG									✓	
UH9Y47									✓	
UPKBAF	✓								✓	UV Lamp
VHKAPF									✓	
VW7QDD			✓	✓					✓	
WWBZHF					✓				✓	UV lamp-Short wavelength
XGGTZ8			✓	✓					✓	Electronic Balance
XGZCAL							✓		✓	
XQP6GB									✓	
YVBE6E									✓	
YZQ6AA		✓							✓	GC/IR
Z4K4HD	✓								✓	GC-IRD

Response Summary										Total Participants: 54
	Color	FTIR	LC	UV	GC	TLC	LC/MS	Raman	GC/MS	
Participants	15	8	8	11	7	1	2	0	54	
Percent	28%	15%	15%	20%	13%	2%	4%	0%	100%	

Synthetic Drug Analysis (Item 2)

TABLE 2a - Item 2 Results
Item Contents: No Synthetic Substance

WebCode	Synthetic Drug Group Detected	Synthetic Drug Detected
28XLUE	No synthetic drug group or synthetic drug was detected or identified in this item.	
2D8G2A	Synthetic substance(s) detected/identified	Thiamine (Vitamin B1)
2TLPX8	No synthetic drug group or synthetic drug was detected or identified in this item.	
3WF4X2	No synthetic drug group or synthetic drug was detected or identified in this item.	
4DGBP9	No synthetic drug group or synthetic drug was detected or identified in this item.	
4MLH69	No synthetic drug group or synthetic drug was detected or identified in this item.	
6RXMF9	No synthetic drug group or synthetic drug was detected or identified in this item.	
7NBNH6	No synthetic drug group or synthetic drug was detected or identified in this item.	
973FC2	No synthetic drug group or synthetic drug was detected or identified in this item.	
9EDHX3	No synthetic drug group or synthetic drug was detected or identified in this item.	
9PD342	No synthetic drug group or synthetic drug was detected or identified in this item.	
9Y2Y2V	No synthetic drug group or synthetic drug was detected or identified in this item.	
B2HZ2Z	No synthetic drug group or synthetic drug was detected or identified in this item.	
B6234Y	No synthetic drug group or synthetic drug was detected or identified in this item.	
B6HBWZ	No synthetic drug group or synthetic drug was detected or identified in this item.	
B7XD49	No synthetic drug group or synthetic drug was detected or identified in this item.	
BAVW2Z	No synthetic drug group or synthetic drug was detected or identified in this item.	
DWMTVW	No synthetic drug group or synthetic drug was detected or identified in this item.	
ECAUKY	No synthetic drug group or synthetic drug was detected or identified in this item.	
FFMUGQ	No synthetic drug group or synthetic drug was detected or identified in this item.	
FPCK2X	No synthetic drug group or synthetic drug was detected or identified in this item.	
FYJFZW	No synthetic drug group or synthetic drug was detected or identified in this item.	

TABLE 2a - Item 2 Results
Item Contents: No Synthetic Substance

WebCode	Synthetic Drug Group Detected	Synthetic Drug Detected
FZT6LU	No synthetic drug group or synthetic drug was detected or identified in this item.	
GRVVV	No synthetic drug group or synthetic drug was detected or identified in this item.	
GWPRH2	No synthetic drug group or synthetic drug was detected or identified in this item.	
HB3GVU	No synthetic drug group or synthetic drug was detected or identified in this item.	
HJWURM	No synthetic drug group or synthetic drug was detected or identified in this item.	
J38YUQ	No synthetic drug group or synthetic drug was detected or identified in this item.	
K8FL4L	No synthetic drug group or synthetic drug was detected or identified in this item.	
KCQYLJ	No synthetic drug group or synthetic drug was detected or identified in this item.	
KXTLPW	No synthetic drug group or synthetic drug was detected or identified in this item.	
L3FXZJ	No synthetic drug group or synthetic drug was detected or identified in this item.	
NENCYM	No synthetic drug group or synthetic drug was detected or identified in this item.	
P7NCZL	No synthetic drug group or synthetic drug was detected or identified in this item.	
PFG9UC	No synthetic drug group or synthetic drug was detected or identified in this item.	
Q8XNDG	No synthetic drug group or synthetic drug was detected or identified in this item.	
QLH77K	No synthetic drug group or synthetic drug was detected or identified in this item.	
QZDNVH	No synthetic drug group or synthetic drug was detected or identified in this item.	
R6QQGE	No synthetic drug group or synthetic drug was detected or identified in this item.	
RJKDLL	No synthetic drug group or synthetic drug was detected or identified in this item.	
RTBV2E	No synthetic drug group or synthetic drug was detected or identified in this item.	
TKEHFK	No synthetic drug group or synthetic drug was detected or identified in this item.	
U7CAFG	No synthetic drug group or synthetic drug was detected or identified in this item.	
UH9Y47	No synthetic drug group or synthetic drug was detected or identified in this item.	
UPKBAF	No synthetic drug group or synthetic drug was detected or identified in this item.	

TABLE 2a - Item 2 Results
Item Contents: No Synthetic Substance

WebCode	Synthetic Drug Group Detected	Synthetic Drug Detected
VHKAPF	No synthetic drug group or synthetic drug was detected or identified in this item.	
W7QDD	No synthetic drug group or synthetic drug was detected or identified in this item.	
WWBZHF	No synthetic drug group or synthetic drug was detected or identified in this item.	
XGGTZ8	No synthetic drug group or synthetic drug was detected or identified in this item.	
XGZCAL	No synthetic drug group or synthetic drug was detected or identified in this item.	
XQP6GB	No synthetic drug group or synthetic drug was detected or identified in this item.	
YVBE6E	No synthetic drug group or synthetic drug was detected or identified in this item.	
YZQ6AA	No synthetic drug group or synthetic drug was detected or identified in this item.	
Z4K4HD	No synthetic drug group or synthetic drug was detected or identified in this item.	

<i>Response Summary - Item 2</i>		
Participants: 54		
Synthetic Drug Group Detected:	No synthetic substance(s) detected/identified:	53
	Synthetic substance(s) detected/identified:	1
Synthetic Drug Detected:	Other:	1

Examination Methods (Item 2)

TABLE 2b

WebCode	Color	FTIR	LC	UV	GC	TLC	LC/MS	Raman	GC/MS	Other
28XLUE								✓	✓	NMR
2D8G2A		✓					✓		✓	GC/MS-MS
2TLPX8			✓			✓			✓	
3WF4X2		✓	✓	✓					✓	
4DGBP9	✓								✓	
4MLH69	✓			✓	✓				✓	
6RXMF9		✓					✓		✓	
7NBNH6		✓							✓	
973FC2									✓	
9EDHX3		✓							✓	
9PD342									✓	macroscopic morphology
9Y2Y2V				✓		✓			✓	Balance
B2HZ2Z									✓	
B6234Y	✓								✓	
B6HBWZ	✓								✓	
B7XD49		✓	✓		✓				✓	
BAVW2Z									✓	
DWMTVW									✓	
ECAUKY	✓	✓							✓	
FFMUGQ			✓	✓		✓			✓	
FPCK2X	✓	✓					✓		✓	
FYJFZW		✓							✓	
FZT6LU	✓								✓	
GRVVV	✓								✓	
GWPRH2									✓	
HB3GVU	✓								✓	
HJWURM			✓			✓			✓	Electronic balance and/or mechanical scale
J38YUQ			✓	✓					✓	
K8FL4L	✓	✓			✓				✓	
KCQYLJ			✓	✓					✓	
KXTLPW		✓							✓	
L3FXZJ			✓						✓	
NENCYM	✓								✓	
P7NCZL	✓	✓		✓					✓	

TABLE 2b - Item 2

WebCode	Color	FTIR	LC	UV	GC	TLC	LC/MS	Raman	GC/MS	Other
PFG9UC	✓								✓	
Q8XNDG	✓	✓							✓	
QLH77K	✓	✓		✓					✓	
QZDNVH	✓								✓	
R6QQGE	✓				✓				✓	
RJKDLL	✓	✓							✓	
RTBV2E	✓								✓	
TKEHFK		✓				✓	✓	✓	✓	
U7CAFG	✓								✓	
UH9Y47	✓								✓	
UPKBAF	✓								✓	
VHKAPF		✓							✓	
W7QDD			✓			✓				
WWBZHF	✓			✓					✓	
XGGTZ8		✓		✓		✓			✓	Electronic Balance
XGZCAL	✓						✓		✓	
XQP6GB									✓	
YVBE6E									✓	
YZQ6AA		✓							✓	
Z4K4HD	✓								✓	

Response Summary										Total Participants: 54
	Color	FTIR	LC	UV	GC	TLC	LC/MS	Raman	GC/MS	
Participants	25	19	9	10	4	7	5	2	53	
Percent	46%	35%	17%	19%	7%	13%	9%	4%	98%	

Additional Comments

TABLE 3

WebCode	Additional Comments
28XLUE	Item 1: Two square papers with smile face, and 25I-NBOMe was detected. Item 2: One white round tablet, no synthetic substance was detected.
2D8G2A	ITEM NO 2, WAS FOUND TO BE THIAMINE (VITAMINE B1) BY FTIR. ANALYSIS OF ITEM# 2 BY GC/MS, LC/MS/Q-TOF AND GC/MS-MS DID NOT DETECT ANY DRUGS.
3WF4X2	Possible 25H-NBOMe was indicated but not confirmed for Item 1.
9EDHX3	Item 2 found to contain a mixture of Dicalcium Phosphate and Cellulose
B7XD49	For the item 1, we couldn't exclude that the sample contains 25I-NBOMe or one of these two isomer (3-methoxy ou 4-methoxy). The three molecules are scheduled in [Country].
DWMTWW	The following phenethylamine derivatives were detected: 25H-NBOMe and 2C-I, which are not included in the lists of psychotropics, narcotics or precursors, so they are not restricted substances.
GRVVV	Any comments.
Q8XNDG	1. 25I-NBOMe is a synthetic hallucinogen, which was not in the drug group list provided. 25I-NBOMe is a Class B controlled drug under the [Country legislation], as amended. 2. Item 2 was analysed for the presence of common controlled drugs covered in the [Country legislation] and none were detected.
TKEHFK	Despite many attempts and trials we could not identify an active component in the tablet.

-End of Report-
(Appendix may follow)

Test No. 21-5041: Synthetic Drug Analysis

DATA MUST BE SUBMITTED BY **Sept. 27, 2021, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: F8RU6J

The Accreditation Release section can be accessed by using the "Continue to Final Submission" button above. This information can be entered at any time prior to submitting to CTS.

Scenario:

An investigator has submitted two questioned samples for analysis, Item 1 consisting of two paper tabs and Item 2 consisting of a single tablet. Please examine the samples and determine if any synthetic drugs are present.

Items Submitted (Sample Pack SDA):

Item 1: Two paper tabs

Item 2: Single tablet

1a.) Were any synthetic substances present in Item 1? If yes, list each substance.

- No synthetic substance detected/identified
- Synthetic Substance(s) detected/identified (please list below).
Following your lab's protocols, list the synthetic drug group and/or synthetic drug present in the sample.

Synthetic drug group
(e.g. cathinones)

Synthetic drug
(e.g. dibutylone)

1b.) What methods were used to examine Item 1?

(If color and/or crystal tests are used, please simply check the appropriate method below. Specific color and crystal tests will not be listed in the summary report.)

Color Tests FTIR LC UV GC
Crystal Tests TLC LC/MS Raman GC/MS

Other (specify):

2a.) Were any synthetic substances present in Item 2? If yes, list each substance.

- No synthetic substance detected/identified
- Synthetic Substance(s) detected/identified (please list below).
Following your lab's protocols, list the synthetic drug group and/or synthetic drug present in the sample.

Synthetic drug group
(e.g. cathinones)

Synthetic drug
(e.g. dibutylone)

2b.) What methods were used to examine Item 2?

(If color and/or crystal tests are used, please simply check the appropriate method below. Specific color and crystal tests will not be listed in the summary report.)

Color Tests FTIR LC UV GC
Crystal Tests TLC LC/MS Raman GC/MS

Other (specify):

3.) Additional Comments

Please note: Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.

RELEASE OF DATA TO ACCREDITATION BODIES

The Accreditation Release is accessed by pressing the "Continue to Final Submission" button online and can be completed at any time prior to submission to CTS.

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB, and/or A2LA. Please select one of the following statements to ensure your data is handled appropriately.

- This participant's data is intended for submission to ASCLD/LAB, ANAB, and/or A2LA. (Accreditation Release section below must be completed.)
- This participant's data is **not** intended for submission to ASCLD/LAB, ANAB, and/or A2LA.

Have the laboratory's designated individual complete the following steps **only if your laboratory is accredited in this testing/calibration discipline** by one or more of the following Accreditation Bodies.

Step 1: Provide the applicable Accreditation Certificate Number(s) for your laboratory.

ANAB Certificate No.
(Include ASCLD/LAB Certificate here)

A2LA Certificate No.

Step 2: Complete the Laboratory Identifying Information in its entirety.

Authorized Contact Person and Title

Laboratory Name

Location (City/State)