

Instructions for Handling Test Materials and Recording Results

Sample Matrix

Samples are prepared from urine collected from volunteers and patients which has been heated at 60°C for 1½ hours prior to lyophilisation. Nevertheless, it is recommended that laboratory personnel treat the samples with the care and attention normally exercised in handling clinical specimens.

Prior to analysis the samples should be stored at ambient temperature and away from moisture.

Samples will be of **15mL** volume. Check the details printed on the bottle label and dissolve samples by adding the volume of distilled water specified. Use gentle mixing; avoid vigorous agitation. Once reconstituted samples should be stored at **4°C** for up to 2 days or frozen.

Screen the samples for drugs of abuse and adhere as far as practicable to your normal protocols used in the analysis of routine samples. N.B. Samples may contain adulterating additives.

Reporting Thresholds

Prior to submitting your results you will be asked to configure your screening profile (applicable to both screening and full participation), we recommend that you only select the analytes that you are routinely screening for; any drugs that are detected which you are not routinely screening should be added/removed from your screening profile on a round by round basis.

When configuring the screening profile it's essential that you choose the analyte with the reporting threshold that is most appropriate to your laboratory, this will either be the Clinical threshold, EWDTS threshold or SAMHSA thresholds.

E.g. Amphetamine (Clinical threshold 1000 µg/L, EWDTS 200 µg/L and SAMHSA 250 µg/L).

Note: Failure to choose the most appropriate threshold to your laboratory could result in your laboratory being incorrectly assessed.

Please see table overleaf detailing the thresholds relating to the relevant participation level (screening only or full).

Please Note: Cut-offs for users of commercial kits

Participants who use commercial kits that operate to threshold concentrations different from those tabulated should report their results to those specified by the manufacture of the kit. A problem only arises in the uncommon case where the kit threshold is above the scheme threshold. In a sample containing a drug at a concentration between the two thresholds, the laboratory will receive an unsatisfactory result. When a drug is present at a concentration below the scheme threshold, no assessment is applied.

Threshold after hydrolysis

In the case of groups such as opiates and benzodiazepines, where a sample hydrolysis step may be employed, the tabulated threshold should be taken to apply to the total sample content; free + conjugated.

Reporting of Screening Group results

Please note that for assessment purposes:

1. All amphetamine drugs should be reported under the Amphetamine Screening Group as well as the individual screening group where that applies. E.g. MDMA and Methylamphetamine should be reported under the Amphetamine Screening Group as well as the Methylamphetamine Screening Group.
2. All benzodiazepines should be reported under the Benzodiazepine Screening Group.
3. All Opiates should be included under the Opiate Screening Group (e.g. Morphine, Codeine, Dihydrocodeine, 6-MAM) as well as the individual screening group where that applies e.g. 6-MAM.
4. Please note that the Screening Group is Total Opiates (the sum of Free and Glucuronide conjugates). There is an option for the Glucuronide variations of Morphine, etc. However, please enter the "Detected/Not detected" assessment based upon the Total Morphine, etc.
5. Buprenorphine and Norbuprenorphine should be added together and results submitted under the Buprenorphine Screening Group.

The reporting threshold table includes the details for the relevant screening groups, however if there is any doubt please contact us for clarification.

Instructions for Handling Test Materials and Recording Results

Submission of results

Full membership-allows participants to report results for screening groups and individual analytes. Quantitative results may also be reported.

Screening Only membership- allows participants to report for screening groups only. Quantitative results may also be reported.

All results should be submitted using PORTAL.

Please go to <https://portal.lgcstandards.com>

Login using your Lab ID, username and password.

PORTAL user advice has been supplied in the sample despatch email. Further guides can be downloaded from the PORTAL help section.

Please note that this scheme utilises a screening profile. The screening profile will need to be configured on PORTAL prior to reporting results. Please refer to the quick guide sent in the sample despatch email.

Reporting units

For the submission of drug results the unit is µg/L.. The integrity units are detailed below. However, for the majority of analytes the report will be produced in mass units.

Please do not hesitate to contact our support team using the details below or your local LGC representative if any difficulties are encountered.

Tel: +44 (0)161 762 2500

Email: ptcustomerservices@lgcgroup.com

THRESHOLDS

Integrity tests	Criterion for unsatisfactory sample integrity
Creatinine	Less than 2.0 mmol/L
Osmolality	Less than 50 mmol/kg
pH	Less than 4.0 or greater than 9.0
Specific gravity	The Steering Committee does not recommend specific gravity measurements as being suitable for use. If applied, values <1.0010 or >1.035 are unsatisfactory. (N.B. the upper limit for EWDTS workplace guideline applied is >1.0200)

NOTE: In addition to the above criteria, samples may be considered to have unsatisfactory sample integrity when the analytes demonstrate that the urine has been adulterated.

Instructions for Handling Test Materials and Recording Results

Screening tests	Clinical µg/L	EWDTS µg/L	SAMHSA µg/L	Individual analytes	Clinical µg/L	EWDTS µg/L	SAMHSA µg/L
Amfetamines Screen	1000	500	500	Amfetamine Methyl-amfetamine MDMA / MDA / MDEA Other amfetamine	1000 1000 1000 -	200 200 200 200	250 250 250 -
Barbiturates Screen	300	200	-	Specific barbiturate	300	150	-
Cannabinoid Screen	50	50	50	Delta-9-THC-COOH	15	15	15
Cocaine and Metabolite Screen	300	150	150 (Benzoylcegonine)	Benzoylcegonine Cocaine	300 3000	100 -	100 -
Benzodiazepine Screen	300	200	-	Specific benzodiazepine (Alprazolam, Bromazepam, Clonazepam, Diazepam, Flunitrazepam, Flurazepam, Lorazepam, Lormetazepam, Midazolam, Nitrazepam, Nordiazepam, Oxazepam, Phenazepam, Temazepam)	300	100	-
Methadone Screen EDDP Screen	300 300	300 100	- -	Methadone EDDP	300 300	250 75	- -
Propoxyphene and Metabolite Screen	-	300	-	Propoxyphene or metabolites	-	300	-
Opiates Screen (total)	300	300	Codeine/Morphine 2000 (Morphine)	Morphine (total) Codeine (total) Dihydrocodeine (total)	300 2000 2000	300 300 300	2000 2000 -
6-Monoacetylmorphine	-	-	10	6-Monoacetylmorphine	10	10	10
Buprenorphine and Metabolite Screen	5	5	-	Buprenorphine or Metabolites	5	2	-
Phencyclidine Screen	25	25	25	Phencyclidine	25	25	25
LSD and Metabolite Screen	1	1	-	LSD or metabolites	1	1	-

*European Guidelines for Workplace Drug Testing in Urine 2015-11-01 Version 2.0

*Mandatory Guidelines for Federal Workplace Drug Testing Program: Final Rule, Federal Register, 82 FR 7920-2017