

NeoSal® Oral Fluid Collection System

Technical Product Information



The NeoSal Oral Fluid Collection System is intended for the collection of oral fluid specimens. Oral fluid samples collected with the NeoSal can be screened for drugs of abuse using Neogen's ELISA test kits or other drug monitoring tests validated by the testing laboratory.

The NeoSal Oral Fluid Collection System is intended for forensic use only.

Sample Volume Adequacy Indicator

The NeoSal incorporates a Sample Volume Adequacy Indicator (SVAI) built into the device to ensure a suitable volume of oral fluid is collected. The SVAI will form a distinct blue line when the target volume is collected. The target volume is 0.7 mL.

Collection Time

The typical collection time with the NeoSal is 1-3 minutes. Individuals who exhibit dry mouth or did not pool saliva had collection times that ranged up to 3 minutes or longer. If sufficient volume is not collected within 10 minutes, Neogen recommends the donor start over with a new collection device.

n=114	Time (seconds)
Mean	104.5
Standard Deviation	107.1
Minimum Value	12
Maximum Value	576

Sample Dilution

The NeoSal contains 2.1 mL of proprietary buffer solution designed to recover drug analytes from the collection pad and ensure stability of the sample during transportation and storage. The dilution factor is 1:4.

Drug Recovery & Sample Stability

The NeoSal buffer is specifically designed to achieve excellent recovery of drug analytes from the collection pad. While test laboratories will typically test oral fluid samples within 1-2 days



Storage	Overnight Shipping	Day 6 Shipping	Day 13 Shipping	Day 28 Shipping	12+ months at -20°C
Days Post-Collection	Day 1	Day 7	Day 14	Day 29	Day 365+
Analyte	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery
Benzoylcegonine	108.0 ± 5.8	107.9 ± 5.8	120.4 ± 5.9	103.1 ± 7.3	92.8 ± 4.5
Cocaine	108.7 ± 19.3	98.1 ± 19.3	93.1 ± 19.2	79.0 ± 19.8	87.3 ± 13.7
S(+)-Amphetamine	101.7 ± 7.3	86.3 ± 2.3	88.8 ± 1.5	128.7 ± 9.1	69.9 ± 5.2
S(+)-Methamphetamine	102.8 ± 7.7	85.4 ± 2.4	91.7 ± 2.5	120.1 ± 11.4	90.9 ± 5.4
(±)MDA	105.0 ± 6.3	82.8 ± 6.4	89.5 ± 13.4	120.5 ± 9.2	75.5 ± 5.0
(±)MDMA	98.9 ± 6.1	77.2 ± 0.4	88.2 ± 3.1	118.5 ± 1.9	88.6 ± 6.3
(±)MDEA	96.4 ± 4.9	72.4 ± 14.0	82.9 ± 5.0	110.2 ± 5.7	95.7 ± 5.9
Morphine	109.7 ± 11.5	114.1 ± 10.3	89.1 ± 10.1	109.8 ± 17.4	72.8 ± 4.0
Codeine	109.1 ± 5.1	132.0 ± 5.8	90.8 ± 10.1	110.4 ± 9.3	85.4 ± 2.0
Hydrocodone	103.8 ± 11.8	129.7 ± 13.7	103.8 ± 11.1	112.7 ± 16.1	90.4 ± 2.3
Oxycodone	98.2 ± 8.7	112.8 ± 8.2	88.5 ± 12.2	120.7 ± 10.2	83.8 ± 3.1
Hydromorphone	99.9 ± 11.5	125.4 ± 11.6	110.9 ± 12.0	112.0 ± 16.6	91.8 ± 2.0
6-MAM	113.0 ± 9.8	95.7 ± 6.6	113.4 ± 20.9	115.4 ± 8.4	104.0 ± 4.6
PCP	104.8 ± 2.2	99.1 ± 1.4	101.5 ± 1.3	105.7 ± 1.2	84.0 ± 1.1
(-)-Delta9-THC	102.9 ± 10.8	98.9 ± 15.1	71.3 ± 10.2	60.7 ± 11.3	104.0 ± 5.7

post-collection, LC/MS data generated by a third party study demonstrates the NeoSal achieves consistent drug recovery on day 1 and day 7. As indicated in the chart, the overall trends for the majority of the drugs tested support good sample stability up to approximately 30 days at room temperature. It should be noted that while the cocaine concentration decreased at day 29, the benzoylcegonine concentration for the cocaine spiked sample increased. The net concentration of these two compounds was almost equivalent to the initial amount of cocaine at day 1. Slight differences in the LC/MS methods contribute to the recovery values greater than 100%.

Oral Fluid Collection System Ordering Information

Product	Product No.
NeoSal Oral Fluid Collection System – 25 pack	128101-25
NeoSal Buffer – 500 mL	120176
NeoSal Buffer – 1L	120177
Buffer Tube caps – 25 pack	128102-25

Korb, S. MSc, Scott, K. PhD, Wylie, F. PhD. Investigation into Application of the NeoSAL™ Oral Fluid Collection Device for the Determination of Amphetamine and Methamphetamines. Poster session presented at: SOFT Annual Meeting; 2016 Oct. 16-21; Dallas, TX.



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