

Forensics: Blood Alcohol; Bank Dyes; Explosives

Blood Alcohol Standards

We have developed calibration mixtures for performing multi-point instrument calibrations so that laboratories can construct calibration curves. The data pack (which can be downloaded from our website at www.restek.com/datapacks) includes a Certificate of Analysis, raw material testing results, statistical QA results, analytical balance printout, and gravimetric weight of each analyte. Ethanol in these mixes is National Institute of Standards and Technology (NIST)-traceable.

Compound	qty.	cat.#
0.010g/dL forensic ethanol solution		
1mL/ampul	5-pk.	36276
1mL/ampul	10-pk.	36278
5mL/ampul	ea.	36277
0.015g/dL forensic ethanol solution		
1mL/ampul	5-pk.	36232
1mL/ampul	10-pk.	36332
20mL/ampul	ea.	36248
0.02g/dL forensic ethanol solution		
1mL/ampul	5-pk.	36233
1mL/ampul	10-pk.	36333
20mL/ampul	ea.	36249
0.025g/dL forensic ethanol solution		
1mL/ampul	5-pk.	36234
1mL/ampul	10-pk.	36334
5mL/ampul	ea.	36242
0.04g/dL forensic ethanol solution		
1mL/ampul	5-pk.	36235
1mL/ampul	10-pk.	36335
5mL/ampul	ea.	36243
20mL/ampul	ea.	36251
0.05g/dL forensic ethanol solution		
1mL/ampul	5-pk.	36257
1mL/ampul	10-pk.	36259
5mL/ampul	ea.	36258
20mL/ampul	ea.	36260
0.08g/dL forensic ethanol solution		
1mL/ampul	5-pk.	36262
1mL/ampul	10-pk.	36264
5mL/ampul	ea.	36263
20mL/ampul	ea.	36265
0.1g/dL forensic ethanol solution		
1mL/ampul	5-pk.	36236
1mL/ampul	10-pk.	36336
5mL/ampul	ea.	36244
20mL/ampul	ea.	36252
0.15g/dL forensic ethanol solution		
1mL/ampul	5-pk.	36237
1mL/ampul	10-pk.	36337
5mL/ampul	ea.	36245
20mL/ampul	ea.	36253
0.2g/dL forensic ethanol solution		
1mL/ampul	5-pk.	36238
1mL/ampul	10-pk.	36338
5mL/ampul	ea.	36246
20mL/ampul	ea.	36254
0.3g/dL forensic ethanol solution		
1mL/ampul	5-pk.	36239
1mL/ampul	10-pk.	36339
5mL/ampul	ea.	36247
20mL/ampul	ea.	36255
0.4g/dL forensic ethanol solution		
1mL/ampul	5-pk.	36266
1mL/ampul	10-pk.	36268
5mL/ampul	ea.	36267
20mL/ampul	ea.	36269

Blood Alcohol Standards cont'd

Blood Alcohol Mix Resolution Control Standard

(8 components)

Use to verify the retention time for each compound normally included in a blood alcohol test, and to verify that the compounds are resolved from and do not interfere with one another. Concentration of ethanol is NIST-traceable.

acetaldehyde	ethyl acetate
acetone	isopropanol
acetonitrile	methanol
ethanol (NIST certified value)	methyl ethyl ketone
0.100g/dL each in water, 1mL/ampul	
	cat. # 36256 (ea.)

did you know?

Our Rtx®-BAC1 and Rtx®-BAC2 columns can resolve a blood alcohol sample in less than 3 minutes. We continually improve analytical methods and develop innovative products for clinical/forensic applications. If you have any questions about methods or products, please contact our Technical Service Team at: support@restek.com or contact your Restek representative.

Bank Dye Standard (MAAQ)

Restek offers this qualitative standard to help investigators in municipal police stations and criminal laboratories fight crime.

1-N-(methylamino)anthraquinone (MAAQ)

100µg/mL in methylene chloride, 1mL/ampul
cat. # 31823 (ea.)

No data pack available.

Explosives Solutions

Single-Component Explosives Solutions

These materials support nitroaromatic, nitramine, and nitroester analyses by GC-ECD (Method 8095.^{1,2} Compounds listed are explosives, manufacturing intermediates or degradation products. Method 8095 mixtures contain the components at concentration ratios appropriate for ECD.

Volume is 1mL/ampul. Concentration is µg/mL.

Compound	Solvent	µg/mL	cat.# (ea.)
2-amino-4,6-dinitrotoluene	ACN	1,000	31670
4-amino-2,6-dinitrotoluene	ACN	1,000	31671
ammonium picrate	ACN	2,000	31890
3,5-dinitroaniline	ACN	1,000	31661
1,3-dinitrobenzene	ACN	1,000	31662
1,4-dinitrobenzene	ACN	2,000	33205
2,4-dinitrotoluene	ACN	1,000	31663
2,6-dinitrotoluene	ACN	1,000	31664
EGDN	M	1,000	31601
HMX	ACN	1,000	31665
nitrobenzene	ACN	1,000	31657
nitroglycerin	M	1,000	31498
nitroguanidine	M	1,000	31602
2-nitrotoluene	ACN	1,000	31659
3-nitrotoluene	ACN	1,000	31660
4-nitrotoluene	ACN	1,000	31658
PETN (pentaerythritol tetranitrate)	M	1,000	31600
picric acid	M	1,000	31499
propylene glycol dinitrate (PGDN)	M	1,000	31821
RDX	ACN	1,000	31666
tetryl	ACN	1,000	31667
1,3,5-trinitrobenzene	ACN	1,000	31668
2,4,6-trinitrotoluene	ACN	1,000	31669

ACN=acetonitrile

M = methanol

also available

Explosives Analysis

For other reference mixes for analyses of nitroaromatic and nitramine explosives residues, refer to pages 461 and 471.

References (Not available from Restek.)

¹US Environmental Protection Agency. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*. SW-846, Proposed Draft Update IVB, Office of Solid Waste, Washington, DC, 1999.

²M. E. Walsh, T. Ranney, *J. Chromatogr. Sci.*, Vol. 36, pp. 406-416, August 1998.