

18 SAP for Study of Ground-Water Quality in Saunders County, Nebraska

Table FSP-8. Analytes include in Severn Trent Laboratory Method SW-846-8321A with solid-phase extraction for explosive compounds with laboratory reporting levels, method detection limits, and U.S. Environmental Protection Agency's health advisories.

[CAS, Chemical Abstract Service Number; STL, Severn Trent Laboratory, Denver, Colorado; LRL, laboratory reporting level; µg/L, micrograms per liter; MDL, method detection limit; USEPA, U.S. Environmental Protection Agency; HA, health advisory; --, no HA or 10⁻⁴ cancer risk available]

Analyte	CAS number	STL		USEPA HA	
		LRL (µg/L) ¹	MDL (µg/L) ¹	Lifetime HA ² (µg/L)	10 ⁻⁴ cancer risk ² (µg/L)
Nitroglycerin (trinitroglycerol)	55-63-0	0.12	0.042	5	200
PETN	78-11-5	.12	.038	--	--
2-Nitrotoluene (2-NT)	88-72-2	.12	.057	--	--
Nitrobenzene (NB)	98-95-3	.12	.036	--	--
3-Nitrotoluene (3-NT)	99-08-1	.12	.064	--	--
1,3,5-Trinitrobenzene (1,3,5-TNB)	99-35-4	.12	.018	--	--
1,3-Dinitrobenzene (1,3-DNB)	99-65-0	.12	.019	1	--
4-Nitrotoluene (4-NT)	99-99-0	.12	.061	--	--
2,4,6-Trinitrotoluene (2,4,6-TNT)	118-96-7	.12	.026	2	100
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	.12	.038	--	5
Cyclotrimethylene trinitramine (RDX)	121-82-4	.12	.013	2	30
2-Amino-4,6-dinitrotoluene (2-Am-DNT)	355-72-78-2	.12	.017	-	--
Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	479-45-8	.12	.017	--	--
2,6-Dinitrotoluene (2,6-DNT)	606-20-2	.12	.037	--	5
4-Amino-2,6-dinitrotoluene (4-Am-DNT)	1946-51-0	.12	.022	--	--
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	.12	.017	400	--

¹USEPA, 1996, Method 8321A, Solvent extractable nonvolatile compounds by high performance liquid chromatography/thermospray/mass spectrometry (HPLC/TS/MS) or ultraviolet (UV) detection, revision 1: USEPA data available on the Web, accessed November 13, 2004, at <http://www.epa.gov/epaoswer/hazwaste/test/pdfs/8321a.pdf>

Penfold, Larry, 2001, The new role for LC/MS and LC/MS/MS in explosives investigations, in Proceedings of the Seventeenth Annual Waste Testing & Quality Assurance Symposium (WTQA 2001), August 12-16, 2001, Arlington, Virginia: USEPA data available on the Web, accessed November 13, 2004, at <http://www.epa.gov/SW-846/pdfs/final01.pdf>

STL, 2003, LC/MS analysis of nitroaromatic and nitramine explosive compounds by APCI/MS, Standard Operating Procedure DEN-LC-0010, revision 3, implemented 6/30/2003: Denver, Colorado, Severn Trent Laboratory, internal document, 31 p

²USEPA, 2004, 2004 Edition of the Drinking Water Standards and Health Advisories: Office of Water, EPA/822/R-04/005, 12 p.