Explosives

Explosive chemicals in solutions are used for several purposes. The major use is as reference standards to aid in the remediation of soil and water. Another use is to train dogs and other animals to detect explosive devices. A third use is to calibrate luggage screening explosives detectors at airports and other secure areas.

Explosives

Compound	CAS No.	Conc.	Matrix	Cat. No.	1 mL
2-Amino-4,6-dinitrotoluene ■	35572-78-2	1 mg/mL	AcCN:MeOH	M-8330-13	
		0.1 mg/mL	AcCN:MeOH	M-8330-13-0.1X	
4-Amino-2,6-dinitrotoluene ■	19406-51-0	1 mg/mL	AcCN:MeOH	M-8330-14	
		0.1 mg/mL	AcCN:MeOH	M-8330-14-0.1X	
Ammonium picrate	131-74-8	0.1 mg/mL	AcCN	M-8330-ADD-27	
DEGDN *New*	693-21-0	100 µg/mL	AcCN:MeOH	M-8330-ADD-36	
1,2-Diaminopropane	78-90-0	0.1 mg/mL	MeOH	M-8330-ADD-9	
2,4-Diamino-6-nitrotoluene ■	6629-29-4	0.1 mg/mL	AcCN	M-8330-ADD-12	
2,6-Diamino-4-nitrotoluene ■	59229-75-3	0.1 mg/mL	AcCN	M-8330-ADD-13	
2,3-Dimethyl-2,3-dinitrobutane (DMNB)	3964-18-9	100 µg/mL	AcCN	M-8330-ADD-21	
3,5-Dinitroaniline	618-87-1	0.1 mg/mL	AcCN:MeOH	M-8330-ADD-4	
1,2-Dinitrobenzene	528-29-0	1 mg/mL	MeOH	M-8330-SS	
1,3-Dinitrobenzene	99-65-0	1 mg/mL	AcCN:MeOH	M-8330-01	
		0.1 mg/mL	AcCN:MeOH	M-8330-01-0.1X	
1,2-Dinitroglycerin *New*	621-65-8	100 µg/mL	AcCN:MeOH	M-8330-ADD-33	
1,3-Dinitroglycerin *New*	623-87-0	100 µg/mL	AcCN:MeOH	M-8330-ADD-34	
2,4-Dinitrotoluene ■	121-14-2	1 mg/mL	AcCN:MeOH	M-8330-02	
		0.1 mg/mL	AcCN:MeOH	M-8330-02-0.1X	
2,6-Dinitrotoluene ■	606-20-2	1 mg/mL	AcCN:MeOH	M-8330-03	
		0.1 mg/mL	AcCN:MeOH	M-8330-03-0.1X	
3,4-Dinitrotoluene	610-39-9	1 mg/mL	MeOH	M-8330-IS	
3,5-Dinitrotoluene ■	618-85-9	100 µg/mL	AcCN:MeOH	M-8330-ADD-39	
EGDN	628-96-6	0.1 mg/mL	AcCN	M-8330-ADD-5	
Guanidine nitrate	506-93-7	0.1 mg/mL	MeOH	M-8330-ADD-10	
Hexanitrodiphenylamine *New*	131-73-7	100 µg/mL	AcCN:MeOH	M-8330-ADD-37	
Hexanitrostilbene (HNS) ■	20062-22-0	0.1 mg/mL	AcCN	M-8330-ADD-26	
Hexamethylenetriperoxide diamine (HMTD)	283-66-9	0.1 mg/mL	AcCN	M-8330-ADD-25	
HMX	2691-41-0	1 mg/mL	AcCN:MeOH	M-8330-04	
		0.1 mg/mL	AcCN:MeOH	M-8330-04-0.1X	
Hydrazine	302-01-2	0.1 mg/mL	MeOH	M-8330-ADD-8	
2-Hydroxylamino-4,6-dinitrotoluene ■ (3 month stability)		0.1 mg/mL	AcCN	M-8330-ADD-18	
4-Hydroxylamino-2,6-dinitrotoluene ■ (3 month stability)		0.1 mg/mL	AcCN	M-8330-ADD-20	
Nitrobenzene ■	98-95-3	1 mg/mL	AcCN:MeOH	M-8330-06	
		0.1 mg/mL	AcCN:MeOH	M-8330-06-0.1X	
N-Nitrodimethylamine *New*	4164-28-7	100 µg/mL	AcCN	M-8330-ADD-40	
Nitroglycerin	55-63-0	0.1 mg/mL	EtOH	M-8330-ADD-1	
		1.0 mg/mL	EtOH:MeOH (97:3)	M-8330-ADD-1-10X	
1-Nitroglycerin *New*	624-43-1	100 µg/mL	AcCN:MeOH	M-8330-ADD-31	
2-Nitroglycerin *New*	620-12-2	100 µg/mL	AcCN:MeOH	M-8330-ADD-32	
Nitroguanidine	556-88-7	0.1 mg/mL	MeOH	M-8330-ADD-6	
Nitromethane	75-52-5	0.1 mg/mL	MeOH	M-8330-ADD-7	
2-Nitrotoluene ■	88-72-2	1 mg/mL	AcCN:MeOH	M-8330-07	
		0.1 mg/mL	AcCN:MeOH	M-8330-07-0.1X	
3-Nitrotoluene ■	99-08-1	1 mg/mL	AcCN:MeOH	M-8330-08	
		0.1 mg/mL	AcCN:MeOH	M-8330-08-0.1X	
4-Nitrotoluene ■	99-99-0	1 mg/mL	AcCN:MeOH	M-8330-09	
		0.1 mg/mL	AcCN:MeOH	M-8330-09-0.1X	
PETN	78-11-5	0.1 mg/mL	AcCN:MeOH	M-8330-ADD-2	
		1.0 mg/mL	AcCN:MeOH	M-8330-ADD-2-10X	
Picramic acid	831-52-7	100 µg/mL	AcCN:MeOH	M-8330-ADD-22	
Picric acid	88-89-1	0.1 mg/mL	AcCN:MeOH	M-8330-ADD-3	
Propyleneglycol dinitrate	6423-43-4	100 µg/mL	MeOH	M-8330-ADD-35	
PYX	38082-89-2	0.1 mg/mL	AcCN	M-8330-ADD-11	
RDX	121-82-4	1 mg/mL	AcCN:MeOH	M-8330-05	
		0.1 mg/mL	AcCN:MeOH	M-8330-05-0.1X	
TATP	17088-37-8	0.1 mg/mL	AcCN	M-8330-ADD-24	
TEGDN *New*		0.1 mg/mL	AcCN	M-8330-ADD-41	
2,2',6,6'-Tetranitro-4,4'-azotoluene ■		0.1 mg/mL	AcCN	M-8330-ADD-17	
4,4',6,6'-Tetranitro-2,2'-azotoluene ■		0.1 mg/mL	AcCN	M-8330-ADD-19	
2,2',6,6'-Tetranitro-4,4'-azoxytoluene ■		0.1 mg/mL	AcCN	M-8330-ADD-15	
Tetryl	479-45-8	1 mg/mL	AcCN:MeOH	M-8330-10	
		0.1 mg/mL	AcCN:MeOH	M-8330-10-0.1X	
TNT	118-96-7	1 mg/mL	AcCN:MeOH	M-8330-11	
		0.1 mg/mL	AcCN:MeOH	M-8330-11-0.1X	
1,3,5-Triamino-2,4,6-trinitrobenzene	3058-38-6	40 µg/mL	DMF	M-8330-ADD-14-DMF	
2,4,6-Triaminotoluene trihydrochloride	634-87-7	10 mg	NEAT	M-8330-ADD-23N	
Trimethylolethane trinitrate	3032-55-1	100 µg/mL	AcCN:MeOH	M-8330-ADD-28	
1,3,5-Trinitrobenzene ■	99-35-4	1 mg/mL	AcCN:MeOH	M-8330-12	
		0.1 mg/mL	AcCN:MeOH	M-8330-12-0.1X	
2,4,6-Trinitroresorcinol	82-71-3	1.0 mg/mL	AcCN:MeOH	M-8330-ADD-29	

■ TNT Metabolites

Widest selection of Explosives and their Metabolites

HMTD, TATP & HNS

EXCLUSIVELY from AccuStandard

Technical Note

AccuStandard complies with ATF and other regulations for manufacuring and shipping explosives.

Matrix Key

(SOLUTIONS in 1 mL **NEATS** in mg**)**

AcCN:MeOH in (1:1 ratio)
AcCN Acetonitrile
DMF Dimethyl formamide
EtOH Ethanol
MeOH Methanol

Method 8330 Multi-Component Formulations for Explosive Analysis

The following A and B mixes provide better resolution between possible coeluting analytes, assisting the chemist to optimize the HPLC system. We suggest when first performing Method 8330 development, to purchase the high concentration 14 x 1 mL set "M-8330-R-10X-SET".

Mix A

M-8330A ‡ **1 x 1 mL**
0.1 mg/mL each in AcCN:MeOH (1:1) 7 comps.
M-8330A-10X ‡ **1 x 1 mL**
1.0 mg/mL each in AcCN:MeOH (1:1) 7 comps.

1,3-Dinitrobenzene
2,4-Dinitrotoluene
HMX
Nitrobenzene
RDX
1,3,5-Trinitrobenzene
TNT

M-8330A-R ‡ **1 x 1 mL**
0.1 mg/mL each in AcCN:MeOH (1:1) 8 comps.
M-8330A-R-10X ‡ **1 x 1 mL**
1.0 mg/mL each in AcCN:MeOH (1:1) 8 comps.

2-Amino-4,6-dinitrotoluene
1,3-Dinitrobenzene
2,4-Dinitrotoluene
HMX
Nitrobenzene
RDX
1,3,5-Trinitrobenzene
TNT

Composite Explosive Mixture

M-8330-R **1 x 1 mL**
M-8330-R-PAK ***SAVE*** **5 x 1 mL**
1.0 mg/mL each in MeOH:AcCN (1:1) 14 comps.

1,3-Dinitrobenzene
2,4-Dinitrotoluene
2,6-Dinitrotoluene
HMX
RDX
Nitrobenzene
2-Nitrotoluene
3-Nitrotoluene
4-Nitrotoluene
Tetryl
TNT
1,3,5-Trinitrobenzene
2-Amino-4,6-dinitrotoluene
4-Amino-2,6-dinitrotoluene

Internal Standard

M-8330-IS **1 x 1 mL**
M-8330-IS-PAK ***SAVE*** **5 x 1 mL**
1.0 mg/mL in MeOH

3,4-Dinitrotoluene

Explosives by HPLC Set

M-8330-R-SET ‡ **14 x 1 mL**
Each at 100 µg/mL in AcCN:MeOH (1:1)
M-8330-R-10X-SET ‡ **14 x 1 mL**
Each at 1000 µg/mL in AcCN:MeOH (1:1)

1,3-Dinitrobenzene (01)
2,4-Dinitrotoluene (02)
2,6-Dinitrotoluene (03)
HMX (04)
RDX (05)
Nitrobenzene (06)
2-Nitrotoluene (07)
3-Nitrotoluene (08)
4-Nitrotoluene (09)
Tetryl (10)
TNT (11)
1,3,5-Trinitrobenzene (12)
2-Amino-4,6-dinitrotoluene (13)
4-Amino-2,6-dinitrotoluene (14)

Gun Surveillance Standard

EXP-GSS **1 x 1 mL**
At stated conc. (µg/mL) in AcCN 9 comps.

Dimethyl phthalate	200	2,2'-Dinitrodiphenylamine	50
2,4'-Dinitrodiphenylamine	50	4,4'-Dinitrodiphenylamine	50
2,4-Dinitrodiphenylamine	50	Diphenylamine	200
2-Nitrodiphenylamine	50	N-Nitrosodiphenylamine	75
4-Nitrodiphenylamine	50		

Mix B

M-8330B ‡ **1 x 1 mL**
0.1 mg/mL each in AcCN:MeOH (1:1) 5 comps.
M-8330B-10X ‡ **1 x 1 mL**
1.0 mg/mL each in AcCN:MeOH (1:1) 5 comps.

Tetryl
2,6-Dinitrotoluene
2-Nitrotoluene
3-Nitrotoluene
4-Nitrotoluene

M-8330B-R ‡ **1 x 1 mL**
0.1 mg/mL each in AcCN:MeOH (1:1) 7 comps.
M-8330B-R-10X ‡ **1 x 1 mL**
1.0 mg/mL each in AcCN:MeOH (1:1) 7 comps.

2-Amino-4,6-dinitrotoluene
4-Amino-2,6-dinitrotoluene
Tetryl
2,6-Dinitrotoluene
2-Nitrotoluene
3-Nitrotoluene
4-Nitrotoluene

M-8330B-R2 ‡ **1 x 1 mL**
0.1 mg/mL each in AcCN:MeOH (1:1) 6 comps.
M-8330B-R2-10X ‡ **1 x 1 mL**
1.0 mg/mL each in AcCN:MeOH (1:1) 6 comps.

4-Amino-2,6-dinitrotoluene
Tetryl
2,6-Dinitrotoluene
2-Nitrotoluene
3-Nitrotoluene
4-Nitrotoluene

Surrogate Standard

M-8330-SS **1 x 1 mL**
1.0 mg/mL in MeOH

1,2-Dinitrobenzene

DIN 38407-21 Explosives

Examination of water, wastewater, and sludge for determination of selected explosives and related compounds by HPLC with UV detection

DIN38407-21-A **1 x 1 mL**
10 µg/mL each in MeOH 12 comps.

Picric acid
HMX
RDX
Tetryl
EGDN
DEGDN
Nitroglycerin
TNT
2-Nitrotoluene
PETN
4-Nitrotoluene
3-Nitrotoluene

DIN 38407-21 Related Compounds

Examination of water, wastewater, and sludge for determination of selected explosives and related compounds by HPLC with UV detection

DIN38407-21-B **1 x 1 mL**
10 µg/mL each in MeOH:AcCN (98:2) 8 comps.

1,3,5-Trinitrobenzene
1,3-Dinitrobenzene
4-Amino-2,6-dinitrotoluene
2,2',4,4',6,6'-Hexanitrodiphenylamine
2-Amino-4,6-dinitrotoluene
2,6-Dinitrotoluene
2,4-Dinitrotoluene
Diphenylamine

‡ To delay premature breakdown of thermally labile products in transit we suggest shipping with a "Cold Pack"

Explosive Standards

Method 529 Explosive & Related Compounds by SPE & Capillary Column GC/MS

Method 529 Calibration Curve

All in µg/mL in Ethyl acetate

M-529-	01	02	03	04	05	06	07	08	09
2-Amino-4,6-dinitrotoluene	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
4-Amino-2,6-dinitrotoluene	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
3,5-Dinitroaniline	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
1,3-Dinitrobenzene	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
2,4-Dinitrotoluene	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
2,6-Dinitrotoluene	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
RDX	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
Nitrobenzene	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
2-Nitrotoluene	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
3-Nitrotoluene	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
4-Nitrotoluene	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
1,3,5-Trinitrobenzene	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
Tetryl	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10
TNT	0.025	0.05	0.10	0.25	0.50	1.0	2.0	5.0	10

Full Scan MS Calibration Set

M-529-MS-SET **6 x 1 mL**
M-529-03, M-529-05, M-529-06, M-529-07, M-529-08, M-529-09

SIM Calibration Set

M-529-SIM-SET **7 x 1 mL**
M-529-01, M-529-02, M-529-03, M-529-04, M-529-05, M-529-06, M-529-07

Storage Condition.: Freeze (<-10°C)

Internal Standard Stock Solution

M-529-IS **1 x 1 mL**
2.0 mg/mL Ethyl acetate

3,4-Dinitrotoluene

Internal Standard Fortification Solution

M-529-ISFS **1 x 1 mL**
200 µg/mL each in Ethyl acetate 14 comps.

2-Amino-4,6-dinitrotoluene
4-Amino-2,6-dinitrotoluene
3,5-Dinitroaniline
1,3-Dinitrobenzene
2,4-Dinitrotoluene
2,6-Dinitrotoluene
RDX
Nitrobenzene
2-Nitrotoluene
3-Nitrotoluene
4-Nitrotoluene
1,3,5-Trinitrobenzene
Tetryl
TNT

Surrogate Analyte Stock Solutions

M-529-SS1 **1 x 1 mL**
M-529-SS1-PAK ***SAVE*** **5 x 1 mL**
1000 µg/mL each in MeOH 2 comps.

1,3,5-Trimethyl-2-nitrobenzene
1,2,4-Trimethyl-5-nitrobenzene

M-529-SS2 **1 x 1 mL**
M-529-SS2-PAK ***SAVE*** **5 x 1 mL**
1000 µg/mL each in CH_2Cl_2

Nitrobenzene-d_5

Surrogate Analyte Fortification Solution

M-529-SAFS **1 x 1 mL**
100 µg/mL each in MeOH 3 comps.

1,3,5-Trimethyl-2-nitrobenzene
1,2,4-Trimethyl-5-nitrobenzene
Nitrobenzene-d_5

Method 8095 Explosives by GC/ECD

This method is a companion to EPA Method 8330, utilizing the sensitivity and selectivity of the ECD.

Explosive Stock Solution A

M-8095-SSA-100X **1 x 1 mL**
M-8095-SSA-100X-PAK ***SAVE*** **5 x 1 mL**
100 µg/mL each in AcCN:MeOH (1:1) 10 comps.

2-Amino-4,6-dinitrotoluene
4-Amino-2,6-dinitrotoluene
1,3-Dinitrobenzene
2,6-Dinitrotoluene
2,4-Dinitrotoluene
1,3,5-Trinitrobenzene
TNT
RDX
Tetryl
HMX

Explosive Stock Solution B

M-8095-SSB-100X **1 x 1 mL**
M-8095-SSB-100X-PAK ***SAVE*** **5 x 1 mL**
At stated conc. in AcCN:MeOH (1:1) 7 comps.

Nitrobenzene	(500 µg/mL)	Nitroglycerin	(500 µg/mL)
3-Nitrotoluene	(500 µg/mL)	PETN	(500 µg/mL)
2-Nitrotoluene	(500 µg/mL)	3,5-Dinitroaniline	(100 µg/mL)
4-Nitrotoluene	(500 µg/mL)		

Explosive Surrogate Standards

M-8095-SS-01 **1 x 1 mL**
M-8095-SS-01-PAK ***SAVE*** **5 x 1 mL**
100 µg/mL in AcCN

3,4-Dinitrotoluene

M-8095-SS-02 **1 x 1 mL**
M-8095-SS-02-PAK ***SAVE*** **5 x 1 mL**
100 µg/mL in AcCN

2-Methyl-4-nitroaniline

M-8095-SS-03 **1 x 1 mL**
M-8095-SS-03-PAK ***SAVE*** **5 x 1 mL**
10 µg/mL in AcCN

2,5-Dinitrotoluene