

Certificate of Analysis

Semivolatiles in Soil LCS

Catalog Number: SMO-SV-30
Lot Number: 210219
Manufacture Date: 02/19/2021

Expiration: 02/28/2024
Martix: Soil
Hazards: Irritant

<u>Analyte</u>	<u>CAS</u>	<u>Analyte Purity</u>	<u>Gravimetric Concentration</u> <u>(ug/kg)</u>	
Acenaphthylene	208-96-8	95.6%	2001 ±	18.63
Hexachlorocyclopentadiene	77-47-4	95.9%	2000 ±	18.62
Acenaphthene	83-32-9	100%	2002 ±	18.64
Anthracene	120-12-7	96.7%	1934 ±	18.01
Benzo(a)anthracene	56-55-3	97.1%	1965 ±	18.29
Benzo(a)pyrene	50-32-8	100%	2001 ±	18.63
Benzo(b)fluoranthene	205-99-2	100%	2002 ±	18.64
Benzo(k)fluoranthene	207-08-9	100%	2001 ±	18.63
Benzo(g,h,i)perylene	191-24-2	96.9%	1999 ±	18.61
Chrysene	218-01-9	99.9%	1998 ±	18.60
Dibenz(a,h)anthracene	53-70-3	99.9%	1999 ±	18.61
Fluoranthene	206-44-0	99.8%	2004 ±	18.66
Fluorene	86-73-7	98.0%	1963 ±	18.27
Indeno(1,2,3-c,d)pyrene	193-39-5	99.5%	1991 ±	18.54
Naphthalene	91-20-3	99.8%	2041 ±	19.01
Phenanthrene	85-01-8	98.7%	1980 ±	18.44
Pyrene	129-00-0	100%	2003 ±	18.65
Butyl benzyl phthalate	85-68-7	99.5%	1997 ±	18.60
Di-n-octyl phthalate	117-84-0	99.6%	2002 ±	18.64
bis(2-Ethylhexyl)phthalate	117-81-7	100%	2011 ±	18.72
2-Chloronaphthalene	91-58-7	99.8%	1998 ±	18.61
2,4-Dinitrotoluene	121-14-2	99.8%	2021 ±	18.82
2,6-Dinitrotoluene	606-20-2	99.9%	2001 ±	18.63
Hexachlorobenzene	118-74-1	99.9%	1999 ±	18.61
Hexachloroethane	67-72-1	99.9%	2009 ±	18.71
Nitrobenzene	98-95-3	99.9%	2000 ±	18.62
Isophorone	78-59-1	99.4%	2009 ±	18.70
Hexachlorobutadiene	87-68-3	97.7%	1990 ±	18.52
Di-n-butyl phthalate	84-74-2	94.9%	1900 ±	17.69
Dimethyl phthalate	131-11-3	99.9%	2000 ±	18.62
Diethyl phthalate	84-66-2	99.7%	2000 ±	18.62
4-Chlorodiphenyl ether	7005-72-3	99.4%	2000 ±	18.62
bis(2-Chloro-1-methylethyl)ether	108-60-1	99.9%	2000 ±	18.62



nsi lab solutions

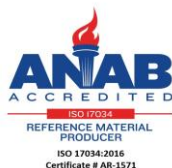
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bis(2-Chloroethyl)ether	111-44-4	100%	2000 ±	18.62
bis(2-Chloroethoxy)methane	111-91-1	98.4%	2000 ±	18.62
4-Bromophenyl phenyl ether	101-55-3	99.5%	2000 ±	18.62
Azobenzene (Diphenyldiazene)	103-33-3	100%	2000 ±	18.62
Carbazole	86-74-8	99.3%	2000 ±	18.62
4-Chloroaniline	106-47-8	99.8%	2000 ±	18.62
Dibenzofuran	132-64-9	100%	2000 ±	18.62
1,4-Dichlorobenzene	106-46-7	99.9%	2000 ±	18.62
2-Methylnaphthalene	91-57-6	99.7%	2000 ±	18.62
1,2-Dinitrobenzene	528-29-0	99.8%	2000 ±	18.62
1,3-Dinitrobenzene	99-65-0	99.5%	2000 ±	18.62
1,4-Dinitrobenzene	100-25-4	99.9%	2001 ±	18.63
Diphenylamine	122-39-4	99.8%	2000 ±	18.62
Pyridine	110-86-1	100%	2000 ±	18.62
N-Nitrosodi-n-propylamine	621-64-7	100%	2000 ±	18.62
N-Nitrosodimethylamine	62-75-9	100%	2000 ±	18.62
bis(2-Ethylhexyl)adipate	103-23-1	99.9%	2000 ±	18.62
1-Methylnaphthalene	90-12-0	99.3%	2000 ±	18.62
1,2,4-Trichlorobenzene	120-82-1	99.8%	2000 ±	18.62
1,3-Dichlorobenzene	541-73-1	99.9%	2000 ±	18.62
1,2-Dichlorobenzene	95-50-1	99.3%	2000 ±	18.62
Benzyl alcohol	100-51-6	99.9%	2000 ±	18.62
Aniline	62-53-3	99.8%	2000 ±	18.62
4-Chloro-3-methylphenol	59-50-7	100%	2000 ±	18.62
o-Cresol	95-48-7	99.6%	2003 ±	18.65
p-Cresol	106-44-5	99.8%	1002 ±	9.32
2,4-Dichlorophenol	120-83-2	99.2%	2001 ±	18.63
4,6-Dinitro-2-methylphenol	534-52-1	99.5%	2000 ±	18.62
2,4-Dinitrophenol	51-28-5	99.9%	2001 ±	18.63
2-Nitrophenol	88-75-5	99.9%	2000 ±	18.62
4-Nitrophenol	100-02-7	100%	2000 ±	18.62
Pentachlorophenol	87-86-5	96.8%	2000 ±	18.62
Phenol	108-95-2	99.9%	2000 ±	18.62
2,4,5-Trichlorophenol	95-95-4	99.5%	2000 ±	18.62
2,4,6-Trichlorophenol	88-06-2	100%	2000 ±	18.62
m-Cresol	108-39-4	99.9%	1000 ±	9.31
2,4-Dimethylphenol	105-67-9	99.8%	2000 ±	18.62
2-Chlorophenol	95-57-8	99.8%	2000 ±	18.62
2-Nitroaniline	88-74-4	100%	2000 ±	18.62
m-Nitroaniline	99-09-2	100%	2000 ±	18.62



ISO 9001:2015 UI Registered Firm - Certificate #10002343 QM15

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p-Nitroaniline	100-01-6	100%	2000 ±	18.62
2,3,4,6-Tetrachlorophenol	58-90-2	93.3%	2000 ±	18.62
2,3,5,6-Tetrachlorophenol	935-95-5	99.8%	2000 ±	18.62
Benzoic acid	68-85-0	99.8%	2001 ±	18.63
Acetophenone	98-86-2	100%	2000 ±	18.62
n-Decane	124-18-5	99.8%	2000 ±	18.62
2,3-Dichloroaniline	608-27-5	100%	2005 ±	18.66
n-Octadecane	593-45-3	99.8%	2001 ±	18.63
a-Terpineol	98-55-5	99.8%	1969 ±	18.33

This certified reference material (CRM) was manufactured and certified by NSI Lab Solutions according to quality procedures meeting our accreditation requirements of ISO 17034:2016 and ISO/IEC 17025:2017. Our certificates and scopes of accreditation may be viewed at www.anab.org.

Packaging, Storage, Instructions For Use

This CRM is packaged in a sealed container and must be stored at -10°C to -20°C. To use this CRM, allow it to reach room temperature. Complete the analysis according to your normal procedures. Report results in units of ug/kg based on a 30 g sample size. No dry weight correction is needed.

Certified concentration is based upon the gravimetric/volumetric true value when prepared according to instructions.

Acceptance limits are based upon USEPA solid and chemical Interlaboratory studies.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this standard. The actual purity is referenced above.

Method: This CRM was verified Volumetrically/Gravimetrically

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

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Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our standards is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Homogeneity

This standard was thoroughly mixed in production and is guaranteed homogenous.

Ken Grzybowski

Ken Grzybowski, Organics Department Manager

Mark Hammersla

Mark Hammersla, President