

Bisphenol Analogs

Bisphenol Analog Standards

Bisphenol A (2,2'-bis(4-Hydroxyphenyl)propane, BPA) has been used in commercial and industrial applications since the 1970's. It has been the subject of numerous toxicological studies due to human exposure from leachate originating from polycarbonate plastics and epoxy-lined food and drink containers.

The evidence of the toxic effects of BPA has led to restrictions and regulations, resulting in its replacement in commercial products with related compounds. Several chemicals with structural similarity to BPA (ie. two hydroxyl phenyl moieties) have been used as alternatives in the manufacture of polycarbonate plastics and epoxy resins. 4,4-Sulfonyldiphenol (BPS) and 4,4-Dihydroxydiphenylmethane (BPF) are the two main substitutes. However, their similarity to BPA has led to their monitoring and testing for human exposure and toxicity as well.

In addition to the BPA analogs, there has been increased scrutiny of bisphenol A diglycidyl ether (BADGE) which is a widely used building block of epoxy resin. Studies have shown that it also might be linked to adverse human health effects.

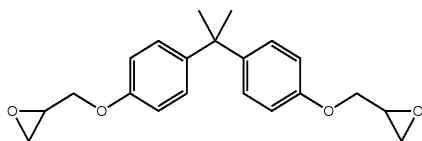
AccuStandard has recognized the need for a comprehensive product line of these BPA related compounds and is offering reference standards for eight BPA analogs as well as the BADGE starting material.

References:

1. Environ. Sci. Technol. 2012, 46, 9138-9145
2. Environ. Sci. Technol. 2012, 46, 12968-12976
3. Environ. Sci. Technol. 2012, 46, 11558-11565

Bisphenol A diglycidyl ether (BADGE)

2,2-bis(4-Glycidyloxyphenyl)propane

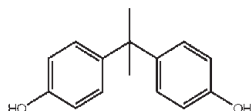


CAS 1675-54-3 **MF** C₂₁H₂₄O₄ **MW** 340.41
log Kow 3.8 **PS** L **SOL** MeOH **SG** 1.16 g/cm³
MP N/A **BP** >200 °C **FP** N/A

Matrix	Cat. No.	Unit
NEAT	BADGE-001N	50 mg
10 mg/mL in MeOH	BADGE-001S	1 mL

Bisphenol A (BPA)

2,2-bis(4-Hydroxyphenyl)propane

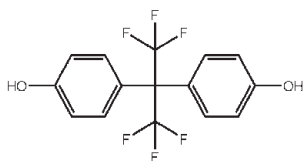


CAS 80-05-7 **MF** C₁₅H₁₆O₂ **MW** 228.29
log Kow 3.43 **PS** S **SOL** Acetone, Benzene, Ether
SG 1.14 g/cm³ **MP** 156 °C **BP** 220 °C **FP** 192 °C

Matrix	Cat. No.	Unit
NEAT	BPA-A-N	50 mg
10 mg/mL in MeOH	BPA-A-S	1 mL

Bisphenol AF

2,2-bis(4-Hydroxyphenyl)-1,1,1,3,3,3-hexafluoropropane

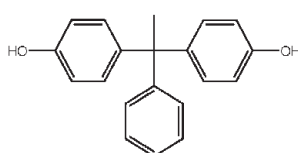


CAS 1478-61-1 **MF** C₁₅H₁₀F₆O₂ **MW** 336.23
log Kow 4.47 **PS** S **SG** 1.45 g/cm³ **MP** 159-162 °C
BP 400 °C **FP** 162 °C

Matrix	Cat. No.	Unit
NEAT	BPA-AF-N	50 mg
10 mg/mL in MeOH	BPA-AF-S	1 mL

Bisphenol AP

1,1-bis(4-Hydroxyphenyl)-1-phenylethane

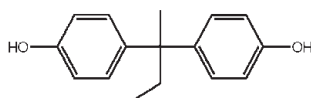


CAS 1571-75-1 **MF** C₂₀H₁₈O₂ **MW** 290.36
log Kow 4.86 **PS** S **SG** 1.18 g/cm³ **MP** 182-183 °C
BP 473-475 °C **FP** 222 °C

Matrix	Cat. No.	Unit
NEAT	BPA-AP-N	50 mg
10 mg/mL in MeOH	BPA-AP-S	1 mL

Bisphenol B

2,2-bis(4-Hydroxyphenyl)butane

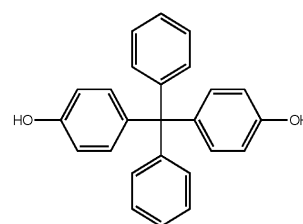


CAS 77-40-7 **MF** C₁₆H₁₈O₂ **MW** 242.31
log Kow 4.13 **PS** S **SG** 1.12 g/cm³ **MP** 126 °C
BP 412-414 °C **FP** 196 °C

Matrix	Cat. No.	Unit
NEAT	BPA-B-N-10MG	10 mg
10 mg/mL in MeOH	BPA-B-S	1 mL

Bisphenol BP

bis(4-Hydroxyphenyl)diphenylmethane

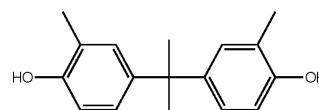


CAS 1844-01-5 **MF** C₂₅H₂₀O₂ **MW** 352.43
log Kow 6.08 **PS** S **SG** 1.20 g/cm³ **MP** 216-217 °C
BP 508-510 °C **FP** 241 °C

Matrix	Cat. No.	Unit
NEAT	BPA-BP-N	50 mg
10 mg/mL in MeOH	BPA-BP-S	1 mL

Bisphenol C

2,2-bis(4-Hydroxy-3-methylphenyl)propane



CAS 79-97-0 **MF** C₁₇H₂₀O₂ **MW** 256.34
log Kow 4.74 **PS** S **SG** 1.15 g/cm³ **MP** 139 °C
BP 390 °C **FP** >190 °C

Matrix	Cat. No.	Unit
NEAT	BPA-C-N	50 mg
10 mg/mL in MeOH	BPA-C-S	1 mL

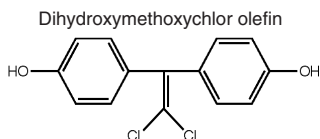
Property Key

CAS	Chemical Abstract Service Number
MF	Molecular Formula
MW	Molecular Weight
PS	Physical State (Solid, Liquid)
SOL	Solubility
SG	Specific Gravity (g/cm ³)
MP	Melting Point (°C)
BP	Boiling Point (°C)
FP	Flash Point (°C)

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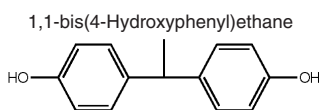
Bisphenol C-dichloride



CAS 14868-03-2 **MF** C₁₄H₁₀Cl₂O₂ **MW** 281.13
log Kow 3.75 **PS** S **SG** 1.45 g/cm³ **MP** 216 °C
BP 395-398 °C **FP** >200 °C

Matrix	Cat. No.	Unit
NEAT	BPA-C2-N	20 mg
10 mg/mL in MeOH	BPA-C2-S	1 mL

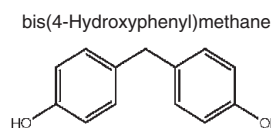
Bisphenol E



CAS 2081-08-5 **MF** C₁₄H₁₄O₂ **MW** 214.26
log Kow 3.19 **PS** S **SG** 1.25 g/cm³ **MP** 125 °C
BP 350-370 °C **FP** >180 °C

Matrix	Cat. No.	Unit
NEAT	BPA-E-N	50 mg
10 mg/mL in MeOH	BPA-E-S	1 mL

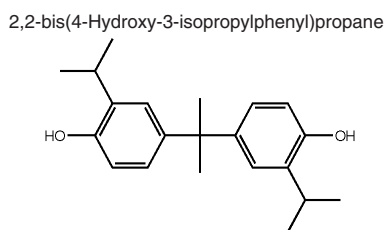
Bisphenol F



CAS 620-92-8 **MF** C₁₃H₁₂O₂ **MW** 200.23
log Kow 2.91 **PS** S **SG** 1.21 g/cm³ **MP** 163 °C
BP 389-390 °C **FP** 193 °C

Matrix	Cat. No.	Unit
NEAT	BPA-F-N-10MG	10 mg
10 mg/mL in MeOH	BPA-F-S	1 mL

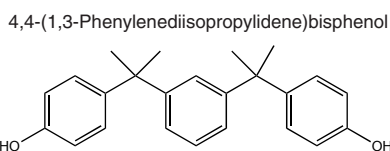
Bisphenol G



CAS 127-54-8 **MF** C₂₁H₂₈O₂ **MW** 312.45
log Kow 6.55 **PS** S **SG** 1.05 g/cm³ **MP** 98 °C
BP 419-420 °C **FP** 185 °C

Matrix	Cat. No.	Unit
NEAT	BPA-G-N	20 mg
10 mg/mL in MeOH	BPA-G-S	1 mL

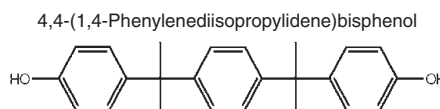
Bisphenol M



CAS 13595-25-0 **MF** C₂₄H₂₆O₂ **MW** 346.46
log Kow 6.25 **PS** S **SG** 1.15 g/cm³ **MP** 138 °C
BP >495 °C **FP** >200 °C

Matrix	Cat. No.	Unit
NEAT	BPA-M-N	20 mg
10 mg/mL in MeOH	BPA-M-S	1 mL

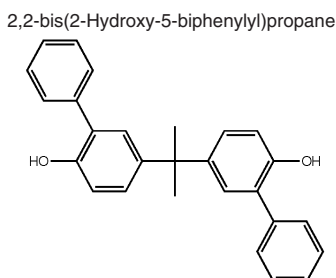
Bisphenol P



CAS 2167-51-3 **MF** C₂₄H₂₆O₂ **MW** 346.46
log Kow 6.25 **PS** S **SG** 1.11 g/cm³ **MP** 199-200 °C
BP 514-515 °C **FP** 230 °C

Matrix	Cat. No.	Unit
NEAT	BPA-P-N	50 mg
10 mg/mL in MeOH	BPA-P-S	1 mL

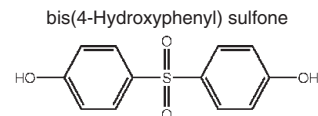
Bisphenol PH



CAS 24038-68-4 **MF** C₂₄H₂₄O₂ **MW** 380.48
log Kow 7.17 **PS** S **SG** 1.20 g/cm³ **MP** 118 °C
BP 567-568 °C **FP** 250 °C

Matrix	Cat. No.	Unit
NEAT	BPA-PH-N	20 mg
10 mg/mL in MeOH	BPA-PH-S	1 mL

Bisphenol S

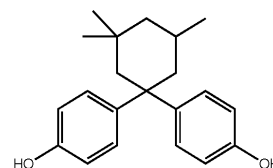


CAS 80-09-1 **MF** C₁₂H₁₀O₄S **MW** 250.27
log Kow 1.65 **PS** S **SG** 1.43 g/cm³ **MP** 245-250 °C
BP 505-506 °C **FP** 259 °C

Matrix	Cat. No.	Unit
NEAT	BPA-S-N	50 mg
10 mg/mL in MeOH	BPA-S-S	1 mL

Bisphenol TMC

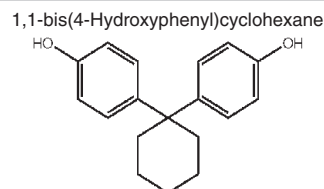
1,1-bis(4-Hydroxyphenyl)-3,3,5-trimethylcyclohexane



CAS 129188-99-4 **MF** C₂₁H₂₆O₂ **MW** 310.43
log Kow 6.29 **PS** S **SG** 1.10 g/cm³ **MP** 204-207 °C
BP 450 °C **FP** 203 °C

Matrix	Cat. No.	Unit
NEAT	BPA-TMC-N-10MG	10 mg
10 mg/mL in MeOH	BPA-TMC-S	1 mL

Bisphenol Z



CAS 843-55-0 **MF** C₁₈H₂₀O₂ **MW** 268.35
log Kow 5.00 **PS** S **SG** 1.17 g/cm³ **MP** 189-192 °C
BP 440-441 °C **FP** 207 °C

Matrix	Cat. No.	Unit
NEAT	BPA-Z-N	50 mg
10 mg/mL in MeOH	BPA-Z-S	1 mL

