

# PBDE Standards

## For GC Analysis

The Chem Service family of PBDE standards are ideal for GC analysis. Polybrominated diphenyl ethers (PBDE) or BDEs, are man-made chemicals used as flame retardants across numerous industries. These compounds are persistent and known to bioaccumulate, making accurate analysis increasingly important for appropriate monitoring and regulation. Whether you are running EPA Method 1614 or a RoHS evaluation, Chem Service PBDE standards deliver the accuracy you need.



### Key features

- ▶ Comprehensive coverage of common congeners
- ▶ Available as neat, solutions and mixtures
- ▶ Convenient pack sizes to minimize storage requirements and waste



## Mixtures

| Name                                   | CAS Number | Matrix                           | Size | Part number          |
|----------------------------------------|------------|----------------------------------|------|----------------------|
| EPA Method 1614 PBDE Congeners Mixture | Multiple   | Varied Concentration in Propanol | 1 mL | M-EPA1614BDEAS99-1ML |

## Neats & Solutions

| Name                                                         | CAS Number  | Matrix                | Size   | Part number   |
|--------------------------------------------------------------|-------------|-----------------------|--------|---------------|
| 2-Bromodiphenyl ether (BDE 1) Solution                       | 7025-06-1   | 50 µg/mL in Isooctane | 1 mL   | S-14267K0-1ML |
| Decabromodiphenyl ether (BDE 209)                            | 1163-19-5   | Neat                  | 100 mg | N-15886-100MG |
| Decabromodiphenyl ether (BDE 209) Solution                   | 1163-19-5   | 50 µg/mL in Toluene   | 1 mL   | S-15886J0-1ML |
| 2,6-Dibromobiphenyl ether (BDE 10) Solution                  | 51930-04-2  | 50 µg/mL in Isooctane | 1 mL   | S-14271K0-1ML |
| 4,4'-Dibromodiphenyl ether (BDE 15)                          | 2050-47-7   | 50 µg/mL in Isooctane | 1 mL   | S-12882K0-1ML |
| 2,3,3',4,4',5,6-Heptabromodiphenyl ether (BDE 190) Solution  | 189084-68-2 | 50 µg/mL in Isooctane | 1 mL   | S-13986K0-1ML |
| 2,2',3,4,4',5,6-Heptabromodiphenyl ether (BDE 183) Solution  | 207122-16-5 | 50 µg/mL in Isooctane | 1 mL   | S-14348K0-1ML |
| 2,2',3,4,4',5,6-Heptabromodiphenyl ether (BDE 181) Solution  | 189084-67-1 | 50 µg/mL in Isooctane | 1 mL   | S-13128K0-1ML |
| 2,2',3,4,4',6,6'-Heptabromodiphenyl ether (BDE 184) Solution | 117948-63-7 | 50 µg/mL in Isooctane | 1 mL   | S-14096K0-1ML |
| 2,2',4,4',5,6'-Hexabromodiphenyl ether (BDE 154) Solution    | 207122-15-4 | 50 µg/mL in Isooctane | 1 mL   | S-14336K0-1ML |

| Name                                                          | CAS Number  | Matrix                | Size | Part number   |
|---------------------------------------------------------------|-------------|-----------------------|------|---------------|
| 2,2',3,4,4',6-Hexabromodiphenyl ether (BDE 139) Solution      | 446254-96-2 | 100 µg/mL in Hexane   | 1 mL | S-14014J0-1ML |
| 2,2',4,4',5,5'-Hexabromodiphenyl Ether (BDE 153)              | 68631-49-2  | Neat                  | 5 mg | N-14258-5MG   |
| 2,2',4,4',5,5'-Hexabromodiphenyl Ether Solution (BDE 153)     | 68631-49-2  | 50µg/mL in Isooctane  | 1 mL | S-14258K0-1ML |
| 2,2',4,4',6,6'-Hexabromodiphenyl ether (BDE 155) Solution     | 35854-94-5  | 50 µg/mL in Isooctane | 1 mL | S-12896K0-1ML |
| 2,3,3',4,4',6-Hexabromodiphenyl ether (BDE 158) Solution      | 446255-09-0 | 50 µg/mL in Hexane    | 1 mL | S-14015J0-1ML |
| 2,3,4,4',5,6-Hexabromodiphenyl ether (BDE 166) Solution       | 189084-58-0 | 50 µg/mL in Isooctane | 1 mL | S-13270K0-1ML |
| 2,2',3,4,4',5,6,6'-Octabromodiphenyl Ether (BDE 204) Solution | 446255-54-5 | 100 µg/mL in Hexane   | 1 mL | S-14028J1-1ML |
| 2,2',4,6,6'-Pentabromodiphenyl ether (BDE 104) Solution       | 446254-68-8 | 50 µg/mL in Isooctane | 1 mL | S-14036K0-1ML |
| 2,3,4,4',6-Pentabromodiphenyl ether (BDE 115) Solution        | 446254-78-0 | 50 µg/mL in Hexane    | 1 mL | S-14009J0-1ML |
| 2,3,4,5,6-Pentabromodiphenyl ether (BDE 116) Solution         | 189084-65-9 | 50 µg/mL in Isooctane | 1 mL | S-12879K0-1ML |
| 2,3',4,4',6-Pentabromodiphenyl ether (BDE 119) Solution       | 189084-66-0 | 50 µg/mL in Isooctane | 1 mL | S-14093K0-1ML |
| 2,3',4,5',6-Pentabromodiphenyl ether (BDE 121) Solution       | 446254-81-5 | 100 µg/mL in Hexane   | 1 mL | S-14034J0-1ML |
| 2,2',4,5',6-Pentabromodiphenyl ether (PBDE 103) Solution      | 446254-67-7 | 50 µg/mL in Isooctane | 1 mL | S-14249K0-1ML |
| 2,2',4,4',6-Pentabromodiphenyl ether BDE 100 Solution         | 189084-64-8 | 50 µg/mL in Isooctane | 1 mL | S-13123K0-1ML |
| 2,2',4,6-Tetrabromodiphenyl ether (BDE 050) Solution          | 446254-23-5 | 50 µg/mL in Isooctane | 1 mL | S-14040K0-1ML |

| Name                                                 | CAS Number  | Matrix                | Size  | Part number   |
|------------------------------------------------------|-------------|-----------------------|-------|---------------|
| 2,2',4,4'-Tetrabromodiphenyl ether (BDE 47)          | 5436-43-1   | Neat                  | 10 mg | N-10522-10MG  |
| 2,2',4,4'-Tetrabromodiphenyl ether (BDE 47) Solution | 5436-43-1   | 50 µg/mL in Isooctane | 1 mL  | S-10522K0-1ML |
| 2,2',4,5'-Tetrabromodiphenyl ether (BDE 49) Solution | 243982-82-3 | 50 µg/mL in Isooctane | 1 mL  | S-14144K0-1ML |
| 2,2',4,6'-Tetrabromodiphenyl ether (BDE 51) Solution | 189084-57-9 | 50 µg/mL in Isooctane | 1 mL  | S-13077K0-1ML |
| 2,3,4,6-Tetrabromodiphenyl ether (BDE 62) Solution   | 446254-33-7 | 50 µg/mL in Isooctane | 1 mL  | S-13999K0-1ML |
| 2,3',4,4'-Tetrabromodiphenyl ether (BDE 66) Solution | 189084-61-5 | 50 µg/mL in Isooctane | 1 mL  | S-12894K0-1ML |
| 2,3',4,6-Tetrabromodiphenyl ether (BDE 69) Solution  | 327185-09-1 | 50 µg/mL in Isooctane | 1 mL  | S-14053K0-1ML |
| 2,3',4',5-tetrabromodiphenyl ether (BDE 70) Solution | 446254-39-3 | 50 µg/mL in Isooctane | 1 mL  | S-14273K0-1ML |
| 2,3',4',6-Tetrabromodiphenyl ether (BDE 71) Solution | 189084-62-6 | 50 µg/mL in Isooctane | 1 mL  | S-13272K0-1ML |
| 2,4,4',6-Tetrabromodiphenyl ether (BDE-75) Solution  | 189084-63-7 | 50 µg/mL in Isooctane | 1 mL  | S-13269K0-1ML |
| 3,3',4,4'-Tetrabromodiphenyl ether (BDE 77) Solution | 93703-48-1  | 50 µg/mL in Isooctane | 1 mL  | S-14113K0-1ML |
| 3,3',4,5'-Tetrabromodiphenyl ether (BDE 79) Solution | 446254-48-4 | 100 µg/mL in Hexane   | 1 mL  | S-14017J0-1ML |

| Name                                             | CAS Number  | Matrix                 | Size  | Part number   |
|--------------------------------------------------|-------------|------------------------|-------|---------------|
| 2,4,4'-Tribromodiphenyl ether (BDE-028) Solution | 41318-75-6  | 50 µg/mL in Isooctane  | 1 mL  | S-12874K0-1ML |
| 2,4,6-Tribromodiphenyl ether (BDE-030) Solution  | 155999-95-4 | 50 µg/mL in Isooctane  | 1 mL  | S-12862K0-1ML |
| 2,2',4-Tribromodiphenyl ether (BDE 17)           | 147217-75-2 | Neat                   | 10 mg | N-14191-10MG  |
| 2,2',4-Tribromodiphenyl ether Solution (BDE 17)  | 147217-75-2 | 50 µg/mL in Isooctane  | 1 mL  | S-14191K0-1ML |
| 2,3',4-Tribromodiphenyl ether (BDE 25)           | 147217-77-4 | Neat                   | 10 mg | N-14147-10MG  |
| 2,3',4-Tribromodiphenyl ether (BDE 25) Solution  | 147217-77-4 | 50 µg/mL in Isooctane  | 1 mL  | S-14147K0-1ML |
| 2,4',6-Tribromodiphenyl ether (BDE-32)           | 189084-60-4 | Neat                   | 10 mg | N-13066-10MG  |
| 2,4',6-Tribromodiphenyl ether (BDE-32) Solution  | 189084-60-4 | 50 µg/mL in Isooctane  | 1 mL  | S-13066K0-1ML |
| 3',4',4-Tribromodiphenyl ether (BDE-37) Solution | 147217-81-0 | 100 µg/mL in Isooctane | 1 mL  | S-13993K1-1ML |