



## PHPA COMPARISON

| FLOCCULANTS & COAGULANTS                 | PRODUCT             | EQUIVALENT                       | CHARGE DENSITY | MOLECULAR WEIGHT (MILLIONS) |
|--|---------------------|----------------------------------|----------------|-----------------------------|
| Nonionic Flocculants                     | Hyperdrill NF 301H  | Alcomer 80 & Alkapam N1003D      | 0-1.0%         | 10.0                        |
| Anionic Flocculants                      | Hyperdrill AF 204RD | Alcomer 338 & Alkapam A1103D     | 10%            | 15.0                        |
|  | Hyperdrill AF 207RD | Alcomer 110RD & Alkapam A1703D   | 30%            | 10.0                        |
|  | Hyperdrill AF 247RD | Alcomer 60RD                     | 30%            | 4.0-5.0                     |
| Liquid Anionic Flocculants               | Earth Pro AE 851    | Alcomer 120L/OS & Alksfloc EA173 | 30%            | 15                          |
| Cationic Flocculant/<br>Shale Stabilizer | Hyperdrill CP 944   | No equivalent                    | 10%            | 1.4                         |
| Cationic Flocculants                     | Hyperdrill CP 910   | Alcomer 755                      | 60%            | 5.0-7.0                     |
|  | Hyperdrill CP 911   | Alcomer 758                      | 80%            | 5.0-7.0                     |
|  | Hyperdrill CP 905H  | Zetag 7692 & Alkapam C1803       | 10%            | 5.0                         |
| Organic Coagulants                       | Hyperdrill CP 757   | Liquid Primary Coagulant         | 100%           | 0.5                         |
| Inorganic Coagulants                     | Gypsum              |                                  |                |                             |
|  | Salt                |                                  |                |                             |
|  | Lime                |                                  |                |                             |