

## UltraNeo 382

| Chemical Product                               | CAS #      | Breakthrough time (minutes) | Permeation level | Standard        | Degradation level | Rating |
|--|------------|-----------------------------|------------------|-----------------|-------------------|--------|
| 1,1,1-Trichloroethane 99%                      | 71-55-6    | 23                          | 1                | ASTM F739       | 3                 | =      |
| 1,1,2,2-Tetrachloroethane 98%                  | 79-34-5    | 20                          | 1                | ASTM F739       | 1                 | -      |
| 1,2 - dichloroethane 99%                       | 107-06-2   | 7                           | 0                | ASTM F739       | 1                 | -      |
| 1,2-Dichlorobenzene 99%                        | 95-50-1    | 16                          | 1                | ASTM F739       | 1                 | -      |
| 1,2,4-Trichlorobenzene 99%                     | 120-82-1   | 37                          | 2                | ASTM F739       | 1                 | -      |
| 2-Butoxyethanol (Butyl Cellusolve) 99%         | 111-76-2   | 295                         | 5                | ASTM F739       | 4                 | ++     |
| 2-Ethoxyethanol (Cellosolve) 99%               | 110-80-5   | 265                         | 5                | ASTM F739       | 4                 | ++     |
| 2-Ethoxyethyl acetate (Cellosolve Acetate) 99% | 111-15-9   | 42                          | 2                | ASTM F739       | 3                 | +      |
| 2-Methylpentamethylenediamine 99%              | 15520-10-2 | 100                         | 3                | ASTM F739       | 3                 | ++     |
| 2-Propanol (Isopropanol) 99%                   | 67-63-0    | 480                         | 6                | ASTM F739       | 4                 | ++     |
| 2,2,2-Trifluoroethanol 99%                     | 75-89-8    | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Acetaldehyde 99%                               | 75-07-0    | 8                           | 0                | ASTM F739       | 4                 | =      |
| Acetic acid 10%                                | 64-19-7    | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Acetic acid 50%                                | 64-19-7    | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Acetic acid 99%                                | 64-19-7    | 289                         | 5                | ASTM F739       | 3                 | ++     |
| Acetic acid 99%                                | 64-19-7    | 136                         | 4                | EN 16523-1:2015 | 3                 | ++     |
| Acetone 99%                                    | 67-64-1    | 9                           | 0                | ASTM F739       | 1                 | -      |
| Acetone 99%                                    | 67-64-1    | 7                           | 0                | EN 374-3:2003   | 1                 | -      |
| Acetonitrile 99%                               | 75-05-8    | 37                          | 2                | ASTM F739       | 4                 | +      |
| Acetonitrile 99%                               | 75-05-8    | 23                          | 1                | EN 16523-1:2015 | 4                 | +      |
| Acrylic acid 99%                               | 79-10-7    | 127                         | 6                | EN 16523-1:2015 | NT                | NA     |
| Acrylonitrile 99%                              | 107-13-1   | 16                          | 1                | ASTM F739       | 4                 | +      |
| Ammonium hydroxide solution 25%                | 1336-21-6  | 123                         | 4                | EN 16523-1:2015 | NT                | NA     |
| Ammonium hydroxide solution 29%                | 1336-21-6  | 148                         | 4                | ASTM F739       | 4                 | ++     |
| Aniline 99%                                    | 62-53-3    | 102                         | 3                | ASTM F739       | 3                 | ++     |

\*not normalized result

### Overall Chemical Protection Rating

Protection rating is determined by taking into account the effects of both permeation and degradation in an attempt to provide users with an overall protection guideline when using our glove products against specific chemicals.

■ Used for **high chemical exposure** or chemical immersion, limited to breakthrough time based on a working day.

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| Benzene 99%                              | 71-43-2    | 5                           | 0                | ASTM F739       | 1                 | -      |
| Butyl Acetate 99%                        | 123-86-4   | 12                          | 1                | ASTM F739       | 1                 | -      |
| Carbon disulfide 99%                     | 75-15-0    | 2                           | 0                | ASTM F739       | 4                 | =      |
| Carbon Tetrachloride 99%                 | 56-23-5    | 12                          | 1                | ASTM F739       | 1                 | -      |
| Chromic Acid 50%                         | 7738-94-5  | 268                         | 5                | ASTM F739       | 4                 | ++     |
| Cumene 98%                               | 98-82-8    | 15                          | 1                | ASTM F739       | 3                 | =      |
| Cyclohexane 99%                          | 110-82-7   | 50                          | 2                | ASTM F739       | 3                 | +      |
| Dichloromethane (Methylene Chloride) 99% | 75-09-2    | 2                           | 0                | ASTM F739       | 3                 | =      |
| Diethanolamine 97%                       | 111-42-2   | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Dimethylformamide 99%                    | 68-12-2    | 26                          | 1                | ASTM F739       | 3                 | =      |
| Dimethylsulfoxide 99%                    | 67-68-5    | 346                         | 5                | ASTM F739       | 4                 | ++     |
| Ethanol 95%                              | 64-17-5    | 363                         | 5                | ASTM F739       | 4                 | ++     |
| Ethyl acetate 99%                        | 141-78-6   | 5                           | 0                | EN 374-3:2003   | NT                | NA     |
| Ethylene glycol 99%                      | 107-21-1   | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Formaldehyde 37%                         | 50-00-0    | 480                         | 6                | ASTM F739       | 3                 | ++     |
| Formaldehyde 37%                         | 50-00-0    | 480                         | 6                | EN 16523-1:2015 | 3                 | ++     |
| Furfural 99%                             | 98-01-1    | 51                          | 2                | ASTM F739       | 3                 | +      |
| Hydrazine 35%                            | 302-01-2   | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Hydrazine 70%                            | 302-01-2   | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Hydrochloric acid 10%                    | 7647-01-0  | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Hydrochloric acid 35%                    | 7647-01-0  | NT                          | NT               |                 | 4                 | NA     |
| Hydrochloric acid 37%                    | 7647-01-0  | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Hydrofluoric Acid 40%                    | 7664-39-3  | 480                         | 6                | EN 16523-1:2015 | NT                | NA     |
| Hydrogen bromide 47%                     | 10035-10-6 | 480                         | 6                | EN 374-3:2003   | NT                | NA     |
| Hydrogen fluoride Anhydrous 99% Gas      | 7664-39-3  | 71                          | 3                | ASTM F739       | NT                | NA     |

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|--------------------------------------|------------|-----------------------------|------------------|-----------------|-------------------|--------|
| Hydrogen peroxide 30%                | 7722-84-1  | 480                         | 6                | EN 16523-1:2015 | 4                 | ++     |
| Isobutyl alcohol 99%                 | 78-83-1    | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Kerosene mixture                     | 8008-20-6  | 463                         | 5                | ASTM F739       | 4                 | ++     |
| m-Cresol 97%                         | 108-39-4   | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Methanol 99%                         | 67-56-1    | 67                          | 3                | ASTM F739       | 3                 | ++     |
| Methanol 99%                         | 67-56-1    | 390                         | 5                | EN 16523-1:2015 | 3                 | ++     |
| Methyl Amyl Ketone 98%               | 110-43-0   | 15                          | 1                | ASTM F739       | 3                 | =      |
| Methyl Ethyl Ketone (2-Butanone) 99% | 78-93-3    | 8                           | 0                | ASTM F739       | 2                 | -      |
| Methylisobutylketone 99%             | 108-10-1   | 23                          | 1                | ASTM F739       | 3                 | =      |
| n-Heptane 99%                        | 142-82-5   | 63                          | 3                | ASTM F739       | 4                 | ++     |
| n-Heptane 99%                        | 142-82-5   | 33                          | 2                | EN 16523-1:2015 | 4                 | +      |
| n-hexane 95%                         | 110-54-3   | 34                          | 2                | ASTM F739       | 4                 | +      |
| N-methyl-2-Pyrrolidone 99%           | 872-50-4   | 38                          | 2                | ASTM F739       | 1                 | -      |
| N-methyl-2-Pyrrolidone 99%           | 872-50-4   | 23                          | 1                | EN 16523-1:2015 | 1                 | -      |
| N-N dimethyl acetamide 99%           | 127-19-5   | 27                          | 1                | ASTM F739       | 2                 | =      |
| Naphtha Heavy mixture                | 68551-17-7 | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Naphtha VM&P mixture                 | 8032-32-4  | 25                          | 1                | ASTM F739       | 4                 | +      |
| Nitric acid 10%                      | 7697-37-2  | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Nitric acid 20%                      | 7697-37-2  | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Nitric acid 40%                      | 7697-37-2  | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Nitric acid 50%                      | 7697-37-2  | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Nitric acid 65%                      | 7697-37-2  | 480                         | 6                | EN 16523-1:2015 | 4                 | ++     |
| Nitrobenzene 99%                     | 98-95-3    | 26                          | 1                | ASTM F739       | 2                 | =      |
| Pentane 99%                          | 109-66-0   | 31                          | 2                | ASTM F739       | 3                 | +      |
| Phenol 85%                           | 108-95-2   | 305                         | 5                | ASTM F739       | 4                 | ++     |
| Phosphoric acid 75%                  | 7664-38-2  | 480                         | 6                | ASTM F739       | 4                 | ++     |

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| Phosphoric acid 85%       | 7664-38-2 | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Potassium Hydroxide 50%   | 1310-58-3 | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Pyridine 99%              | 110-86-1  | 9                           | 0                | ASTM F739       | 1                 | -      |
| Sodium hydroxide 20%      | 1310-73-2 | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Sodium hydroxide 20%      | 1310-73-2 | 480                         | 6                | EN 374-3:2003   | 4                 | ++     |
| Sodium hydroxide 40%      | 1310-73-2 | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Sodium hydroxide 40%      | 1310-73-2 | 480                         | 6                | EN 374-3:2003   | 4                 | ++     |
| Sodium hydroxide 50%      | 1310-73-2 | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Sodium hydroxide 50%      | 1310-73-2 | 480                         | 6                | EN 374-3:2003   | 4                 | ++     |
| Sulfuric acid 10%         | 7664-93-9 | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Sulfuric acid 40%         | 7664-93-9 | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Sulfuric acid 50%         | 7664-93-9 | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Sulfuric acid 96%         | 7664-93-9 | 115                         | 3                | ASTM F739       | 4                 | ++     |
| Sulfuric acid 96%         | 7664-93-9 | 128                         | 4                | EN 16523-1:2015 | 4                 | ++     |
| Toluene 99%               | 108-88-3  | 1                           | 0                | EN 374-3:2003   | NT                | NA     |
| Triethanolamine 98%       | 102-71-6  | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Triethylamine 99%         | 121-44-8  | 22                          | 1                | ASTM F739       | 3                 | =      |
| Turpentine mixture        | 8006-64-2 | 137                         | 4                | ASTM F739       | 3                 | ++     |
| Unleaded gasoline mixture | 8006-61-9 | 10                          | 1                | ASTM F739       | 1                 | -      |
| Xylene 99%                | 1330-20-7 | 8                           | 0                | ASTM F739       | 1                 | -      |

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