



## AdvanTech 517

| Chemical Product   | CAS #       | Breakthrough time (minutes) | Permeation level | Standard  | Degradation level | Rating |
|--|-------------|-----------------------------|------------------|-----------|-------------------|--------|
| 1,1,1-Trichloroethane 99%                                  | 71-55-6     | 7                           | 0                | ASTM F739 | NT                | NA     |
| 1,1,1,2,2,3,4,5,5,5-Decafluoropentane 97%                  | 138495-42-8 | 13                          | 1                | ASTM F739 | NT                | NA     |
| 1,1,2-Trichlorotrifluoroethane (Freon TF or Freon 113) 99% | 76-13-1     | 20                          | 1                | ASTM F739 | 1                 | -      |
| 1,2 Dichloroethylene 98%                                   | 156-60-5    | 2                           | 0                | ASTM F739 | 2                 | -      |
| 1,3 Ethoxy propionate (Ethyl 3-ethoxypropionate) 99%       | 763-69-9    | 480                         | 6                | ASTM F739 | NT                | NA     |
| 2-Butoxyethanol (Butyl Cellusolve) 99%                     | 111-76-2    | 53                          | 2                | ASTM F739 | NT                | NA     |
| 2-Butoxyethylacetate (Butyl cellosolve acetate) 85%        | 112-07-2    | 35                          | 2                | ASTM F739 | NT                | NA     |
| 2-Ethoxyethanol (Cellosolve) 99%                           | 110-80-5    | 27                          | 1                | ASTM F739 | NT                | NA     |
| 2-Ethoxyethyl acetate (Cellosolve Acetate) 99%             | 111-15-9    | 14                          | 1                | ASTM F739 | 4                 | +      |
| 2-Methoxyethanol (Methyl Cellosolve) 99%                   | 109-86-4    | 40                          | 2                | ASTM F739 | NT                | NA     |
| 2-Methoxyethanol Acetate (Methyl cellosolve acetate) 98%   | 110-49-6    | 27                          | 1                | ASTM F739 | NT                | NA     |
| 2-Propanol (Isopropanol) 99%                               | 67-63-0     | 38                          | 2                | ASTM F739 | 4                 | +      |
| 4,4 - diamino diphenylsulfone 97%                          | 80-008-0    | 480                         | 6                | ASTM F739 | NT                | NA     |
| 4,4'-Methylenedianiline (MDA) 15% and 15% Methanol mixture | 101-77-9    | 19                          | 1                | ASTM F739 | NT                | NA     |
| 4,4'-Methylenedianiline (MDA) 15% in Toluene mixture       | 101-77-9    | 15                          | 1                | ASTM F739 | NT                | NA     |
| Acetic acid 10%  | 64-19-7     | NT                          | NT               |           | 4                 | NA     |
| Acetic acid 50%  | 64-19-7     | NT                          | NT               |           | 4                 | NA     |
| Acetic acid 99%  | 64-19-7     | 32                          | 2                | ASTM F739 | 4                 | +      |
| Acetone 99%  | 67-64-1     | 6                           | 0                | ASTM F739 | 4                 | =      |
| Aluminum Etch mixture                                      | NA          | 960                         | 6                | ASTM F739 | 4                 | ++     |
| Aluminum Oxide mixture                                     | NA          | 55                          | 2                | ASTM F739 | NT                | NA     |
| Ammonium Fluoride 40%                                      | 12125-01-8  | 480                         | 6                | ASTM F739 | NT                | NA     |
| Ammonium Fluoride 79%                                      | 12125-01-8  | 480                         | 6                | ASTM F739 | NT                | NA     |

\*not normalized result

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- **Not recommended**, these gloves are deemed unsuitable for work with this chemical.

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| Ammonium hydroxide solution 29%          | 1336-21-6  | 36                          | 2                | ASTM F739       | 4                 | +      |
| Baker PRS-1000 mixture                   | NA         | 20                          | 1                | ASTM F739       | NT                | NA     |
| Baker PRS-2000 mixture                   | NA         | 130                         | 4                | ASTM F739       | NT                | NA     |
| Baker PRS-3000 mixture                   | NA         | 480                         | 6                | ASTM F739       | NT                | NA     |
| Benzene 99%                              | 71-43-2    | 4                           | 0                | ASTM F739       | 1                 | -      |
| Buffered Oxide Etch mixture              | NA         | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Butyl Acetate 99%                        | 123-86-4   | 7                           | 0                | ASTM F739       | 4                 | =      |
| Chromic Acid 50%                         | 7738-94-5  | 60                          | 2                | ASTM F739       | NT                | NA     |
| Cyclohexanone 99%                        | 108-94-1   | 23                          | 1                | ASTM F739       | 1                 | -      |
| Cyclopentanone 99%                       | 120-92-3   | 11                          | 1                | ASTM F739       | NT                | NA     |
| Dichloromethane (Methylene Chloride) 99% | 75-09-2    | 4                           | 0                | ASTM F739       | NT                | NA     |
| Dichromate cleaning solution mixture     | NA         | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Diethylamine 98%                         | 109-89-7   | 4                           | 0                | ASTM F739       | NT                | NA     |
| Diglycidal ether of bisphenol 100%       | 25068-38-6 | 480                         | 6                | ASTM F739       | NT                | NA     |
| Dimethylamine 35%                        | 124-40-3   | 53                          | 2                | ASTM F739       | NT                | NA     |
| Dimethylformamide 99%                    | 68-12-2    | 8                           | 0                | ASTM F739       | NT                | NA     |
| Dimethylsulfoxide 99%                    | 67-68-5    | 181                         | 4                | ASTM F739       | 4                 | ++     |
| Epichlorohydrin 99%                      | 106-89-8   | 4                           | 0                | ASTM F739       | NT                | NA     |
| Ethanol 95%                              | 64-17-5    | 21                          | 1                | ASTM F739       | NT                | NA     |
| Ethyl lactate 95%                        | 97-64-3    | 29                          | 1                | ASTM F739       | NT                | NA     |
| Ethylene glycol 99%                      | 107-21-1   | 480                         | 6                | ASTM F739       | 4                 | ++     |
| Formaldehyde 37%                         | 50-00-0    | 480                         | 6                | EN 16523-1:2015 | 4                 | ++     |
| Hexamethyldisilazane (HMDS) 98%          | 999-97-3   | 18                          | 1                | ASTM F739       | 1                 | -      |
| Hydrochloric acid 10%                    | 7647-01-0  | 480                         | 6                | EN 374-3:2003   | 4                 | ++     |
| Hydrochloric acid 35%                    | 7647-01-0  | NT                          | NT               |                 | 4                 | NA     |

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| Hydrochloric acid 37%                            | 7647-01-0  | 454                         | 5                | ASTM F739       | 4                 | ++     |
| Hydrofluoric Acid 10%                            | 7664-39-3  | 480                         | 6                | EN 374-3:2003   | 4                 | ++     |
| Hydrofluoric Acid 40%                            | 7664-39-3  | 480                         | 6                | EN 16523-1:2015 | NT                | NA     |
| Hydrofluoric Acid 49%                            | 7664-39-3  | 390                         | 5                | ASTM F739       | NT                | NA     |
| Hydrogen peroxide 30%                            | 7722-84-1  | 960                         | 6                | ASTM F739       | 4                 | ++     |
| Hydrotreated Light Naphthenic Distillate mixture | 64742-53-6 | 161                         | 4                | ASTM F739       | 2                 | +      |
| Kerosene mixture                                 | 8008-20-6  | 26                          | 1                | ASTM F739       | 1                 | -      |
| KOH Etch mixture                                 | NA         | 278                         | 5                | ASTM F739       | 4                 | ++     |
| KTI Pad Etch mixture                             | NA         | 480                         | 6                | ASTM F739       | NT                | NA     |
| KTI Silicon Etch mixture                         | NA         | 480                         | 6                | ASTM F739       | NT                | NA     |
| Methanesulfonic Acid 99%                         | 75-75-2    | NT                          | NT               |                 | 4                 | NA     |
| Methanol 85%                                     | 67-56-1    | 19                          | 1                | ASTM F739       | 4                 | +      |
| Methanol 99%                                     | 67-56-1    | NT                          | NT               |                 | 4                 | NA     |
| Methyl Amyl Ketone 98%                           | 110-43-0   | 8                           | 0                | ASTM F739       | 1                 | -      |
| Methyl Ethyl Ketone (2-Butanone) 99%             | 78-93-3    | 4                           | 0                | ASTM F739       | 3                 | =      |
| Methyl-3-methoxypropionate 100%                  | 3852-09-3  | 11                          | 1                | ASTM F739       | 3                 | =      |
| n-hexane 95%                                     | 110-54-3   | 3                           | 0                | ASTM F739       | 1                 | -      |
| N-methyl-2-Pyrrolidone 99%                       | 872-50-4   | 50                          | 2                | ASTM F739       | 4                 | +      |
| N-N dimethyl acetamide 99%                       | 127-19-5   | 47                          | 2                | ASTM F739       | NT                | NA     |
| Naphtha VM&P mixture                             | 8032-32-4  | 2                           | 0                | ASTM F739       | 1                 | -      |
| Nitric acid 10%                                  | 7697-37-2  | 840                         | 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  | NT                          | NT               |                 | 4                 | NA     |
| Nitric acid 68%                                  | 7697-37-2  | 299                         | 5                | EN 374-3:2003   | 4                 | ++     |

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| Nitric acid 70%                                   | 7697-37-2  | 307                         | 5                | ASTM F739 | 4                 | ++     |
| Nitric acid 90%                                   | 7697-37-2  | 7                           | 0                | ASTM F739 | NT                | NA     |
| Nitride Etch mixture                              | NA         | NT                          | NT               |           | 4                 | NA     |
| Nitrohydrochloric acid (Aqua Regia) mixture       | 8007-56-5  | 480                         | 6                | ASTM F739 | NT                | NA     |
| Phenol 85%  | 108-95-2   | 102                         | 3                | ASTM F739 | 4                 | ++     |
| Phosphoric acid 75%                               | 7664-38-2  | 480                         | 6                | ASTM F739 | 4                 | ++     |
| Phosphoric acid 85%                               | 7664-38-2  | 480                         | 6                | ASTM F739 | 4                 | ++     |
| Phosphorus Oxychloride 99%                        | 10025-87-3 | 15                          | 1                | ASTM F739 | NT                | NA     |
| Piranha Etch mixture                              | NA         | 243                         | 5                | ASTM F739 | 1                 | -      |
| Polyethylene glycol octylphenyl ether 100%        | 9002-93-1  | 480                         | 6                | ASTM F739 | NT                | NA     |
| Potassium Hydroxide 50%                           | 1310-58-3  | 480                         | 6                | ASTM F739 | 4                 | ++     |
| Potassium Hydroxide Etch mixture                  | NA         | 24                          | 1                | ASTM F739 | NT                | NA     |
| Propylene Glycol 99%                              | 57-55-6    | 480                         | 6                | ASTM F739 | 4                 | ++     |
| Propylene Glycol Methyl Ethyl Acetate (PGMEA) 99% | 108-65-6   | 47                          | 2                | ASTM F739 | 3                 | +      |
| Propylene Glycol Monomethyl Ether 99%             | 107-98-2   | 26                          | 1                | ASTM F739 | 4                 | +      |
| Silicon Tetrachloride 100%                        | 10026-04-7 | 15                          | 1                | ASTM F739 | NT                | NA     |
| Slope Etch mixture                                | NA         | 260                         | 5                | ASTM F739 | 4                 | ++     |
| Sodium hydroxide 20%                              | 1310-73-2  | 780                         | 6                | ASTM F739 | 4                 | ++     |
| Sodium hydroxide 40%                              | 1310-73-2  | 780                         | 6                | ASTM F739 | 4                 | ++     |
| Sodium hydroxide 50%                              | 1310-73-2  | 780                         | 6                | ASTM F739 | 4                 | ++     |
| Sulfuric acid 10%                                 | 7664-93-9  | 900                         | 6                | ASTM F739 | 4                 | ++     |
| Sulfuric acid 96%                                 | 7664-93-9  | 102                         | 3                | ASTM F739 | 3                 | ++     |
| Tetrachloroethylene (Perchloroethylene) 99%       | 127-18-4   | 4                           | 0                | ASTM F739 | 1                 | -      |
| Tetraethyl Orthosilicate 100%                     | 78-10-4    | 25                          | 1                | ASTM F739 | 1                 | -      |

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| Tetramethyl Ammonium Hydroxide 25%   | 75-59-2   | 480                         | 6                | ASTM F739     | 4                 | ++     |
| Thionylchloride 99%  | 7719-09-7 | 15                          | 1                | ASTM F739     | NT                | NA     |
| Toluene 49% Methyl Isobutyl Ketone 34.5% Methyl Ethyl Ketone 16.5% mixture | NA        | 1                           | 0                | EN 374-3:2003 | NT                | NA     |
| Toluene Diisocyanate (TDI) 80%   | 584-84-9  | 27                          | 1                | ASTM F739     | NT                | NA     |
| Trichloroethylene 99%  | 79-01-6   | NT                          | NT               |               | 1                 | NA     |
| Trimethylphosphite 97%   | 121-45-9  | 10                          | 0                | ASTM F739     | NT                | NA     |
| Unleaded gasoline mixture  | 8006-61-9 | 4                           | 0                | ASTM F739     | 1                 | -      |
| Xylene 99%   | 1330-20-7 | 4                           | 0                | ASTM F739     | 1                 | -      |

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