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**Chemical Resistance of Plexiglass Acrylic****Plexiglass Properties: ACRYLIC: CHEMICAL RESISTANCE**

E - 30 days of constant exposure with no damage. Plastic may even tolerate chemical for years.

G - Little or no damage after 30 days of constant exposure to the reagent.

F - Some effect after 7 days of constant exposure to the reagent. Solvents may cause softening, and swelling.

N - Not recommended for continuous use. Immediate damage may occur such as severe crazing, cracking, or permeation losses.

|                             | Conditions<br>(68 deg F)<br>at 20 deg C | Condition<br>(122 deg<br>at 50 deg |
|-----------------------------|---|------------------------------------|
| Acetaldehyde                | G                                       | F                                  |
| Acetamide (saturated)       | E                                       | E                                  |
| Acetic Acid 5%              | E                                       | G                                  |
| Acetic Acid 50%             | N                                       | N                                  |
| Acetic Acid, Glacial        | N                                       | N                                  |
| Acetic Anhydride            | N                                       | N                                  |
| Acetone                     | N                                       | N                                  |
| Acetonitrile                | N                                       | N                                  |
| Acrylonitrile               | N                                       | N                                  |
| Adipic Acid                 | G                                       | F                                  |
| Alanine                     | E                                       | G                                  |
| Allyl Alcohol               | N                                       | N                                  |
| Aluminum Hydroxide          | G                                       | F                                  |
| Aluminum Salts              | E                                       | E                                  |
| Amino Acids                 | E                                       | G                                  |
| Ammonia                     | G                                       | F                                  |
| Ammonium Acetate, saturated | E                                       | E                                  |
| Ammonium Glycolate          | E                                       | E                                  |
| Ammonium Hydroxide, 50%     | E                                       | G                                  |
| Ammonium Hydroxide, 5%      | E                                       | E                                  |
| Ammonium Oxalate            | E                                       | G                                  |
| Ammonium Salts              | E                                       | E                                  |
| n-Amyl Acetate              | N                                       | N                                  |

Chemical Resistance Properties of Plexiglass Plexiglas Lucite Acrylite Acrylic plastic

|                                 |   |   |
|---------------------------------|---|---|
| Amyl Chloride                   | E | E |
| Aniline                         | N | N |
| Aqua regia                      | F | N |
| Benzaldehyde                    | F | N |
| Benzene                         | N | N |
| Benzoic Acid, saturated         | E | G |
| Benzyl Acetate                  | N | N |
| Benzyl Alcohol                  | N | N |
| Bromine                         | N | N |
| Bromobenzene                    | N | N |
| Bromoform                       | N | N |
| Butadiene                       | G | G |
| n-Butyl Acetate                 | N | N |
| n-Butyl Alcohol                 | F | N |
| i-Butyl Alcohol                 | F | N |
| t-Butyl Alcohol                 | F | N |
| Butyric Acid                    | N | N |
| Butyl Chloride                  | N | N |
| Calcium Hydroxide, Conc.        | G | G |
| Calcium Hypochlorite, saturated | G | F |
| Cellosolve Acetate              | G | F |
| Carbazole                       | N | N |
| Carbon Disulfide                | F | N |
| Carbon Tetrachloride            | N | N |
| Cedarwood Oil                   | F | N |
| Chlorine, 10% in Air            | E | E |
| Chlorine, 10% (Moist)           | E | G |
| Chloroacetic Acid               | N | N |
| p-Chloroacetophenone            | N | N |
| Chlorobenzene                   | N | N |
| Chloroform                      | N | N |
| Chromic Acid, 10%               | E | E |
| Chromic Acid, 50%               | F | N |
| Cinnamon oil                    | N | N |
| Citric Acid, 10%                | E | E |
| Cresol                          | N | N |
| Cyclohexane                     | N | N |
| Cyclohexanone                   | N | N |
| Cyclopentane                    | G | F |

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|                               |   |   |
|-------------------------------|---|---|
| Decalin                       | F | N |
| n-decane                      | F | N |
| o-Dichlorobenzene             | N | N |
| p-Dichlorobenzene             | N | N |
| Diethyl Benzene               | N | N |
| Diethyl Ether                 | F | N |
| Diethyl Ketone                | N | N |
| Malonate                      | F | F |
| Diethylene Glycol             | E | E |
| Diethylene Glycol Ethyl Ether | E | G |
| Dimethyl Formamide            | N | N |
| Sulfoxide                     | N | N |
| 1, 4-dioxane                  | N | N |
| Dipropylene Glycol            | E | E |
| Diethylamine                  | G | G |
| Diacetone alcohol             | N | N |
| 1, 2-dichloroethane           | N | N |
| 2, 4-dichlorophenol           | N | N |
| Dimethyl acetamide            | E | E |
| Dioxane                       | N | N |
| Dibutyl phthalate             | F | N |
| Diocetyl phthalate            | F | N |
| Ethanol                       | F | N |
| Ether                         | F | N |
| Ethyl Acetate                 | N | N |
| Ethyl Alcohol (Absolute)      | G | F |
| Ethyl Alcohol, 40%            | E | E |
| Ethyl Benzene                 | N | N |
| Ethyl Benzoate                | N | N |
| Ethyl Butyrate                | N | N |
| Ethyl Chloride liquid         | N | N |
| Ethyl Cyanoacetate            | N | N |
| Ethyl Lactate                 | F | N |
| Ethylene Chloride             | N | N |
| Ethylene Glycol               | E | E |
| Ethylene Glycol Methyl Ether  | E | G |
| Ethylene Oxide                | E | G |
| Fatty Acids                   | E | E |
| Fluorides                     | N | N |

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|                        |   |   |
|------------------------|---|---|
| Fluorine               | N | N |
| Formaldehyde, 10%      | E | E |
| Formaldehyde, 40%      | E | G |
| Formic Acid, 35%       | E | E |
| Formic Acid, 50%       | G | G |
| Formic Acid, 98%-100%  | N | N |
| Freon, TF              | G | F |
| Fuel Oil               | G | F |
| Gasoline               | G | F |
| Acetic Acid, Glacial   | N | N |
| Glycerine              | E | E |
| Gluteraldehyde         | G | F |
| n-Heptane              | E | E |
| Hexane                 | E | E |
| Hydrochloric Acid, 15% | E | E |
| Hydrochloric Acid, 20% | E | E |
| Hydrochloric Acid, 35% | E | G |
| Hydrochloric Acid, 45% | F | F |
| Hydrochloric Acid, 48% | N | N |
| Hydrogen Peroxide, 3%  | E | E |
| Hydrogen Peroxide, 30% | E | E |
| Hydrogen Peroxide, 90% | N | N |
| Hydrazine              | N | N |
| Iodine Crystals        | N | N |
| Isobutyl Alcohol       | F | F |
| Isopropyl Acetate      | N | N |
| Isopropyl Alcohol      | F | N |
| Isopropyl Benzene      | N | N |
| Isopropyl Ether        | F | N |
| Jet Fuel               | G | F |
| Kerosene               | G | G |
| Lactic Acid, 35%       | E | E |
| Lactic Acid, 85%       | E | E |
| Lacquer Thinner        | N | N |
| Mercury                | E | E |
| Methoxyethyl Oleate    | E | E |
| Methyl Alcohol         | F | N |
| Methyl Ethyl Ketone    | N | N |
| Methyl Isobutyl Ketone | N | N |

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|                            |   |   |
|----------------------------|---|---|
| Methyl Propyl Ketone       | N | N |
| Methylene Chloride         | N | N |
| Mineral Oil                | E | E |
| 2-Methoxyethanol           | F | N |
| Methyl-t-Butyl Ether       | G | F |
| Methyl Acetate             | N | N |
| Mineral Spirits            | F | N |
| Nitric Acid, 1-10%         | E | E |
| Nitric Acid 50%            | G | F |
| Nitric Acid 70%            | F | N |
| Nitrobenzene               | N | N |
| Nitromethane               | N | N |
| n-Octane                   | E | E |
| Orange Oil                 | E | E |
| Oxalic Acid                | E | E |
| Ozone                      | E | E |
| Perchloric Acid            | N | N |
| Perchloroethylene          | F | N |
| Phenol, Crystals           | N | N |
| Phenol, Liquid             | N | N |
| Phosphoric Acid, 85%       | F | N |
| Phosphoric Acid, 1-5%      | E | E |
| Picric Acid                | N | N |
| Pine Oil                   | E | G |
| Potassium Hydroxide, 1%    | E | E |
| Potassium Hydroxide, Conc. | E | G |
| Propane Gas                | E | E |
| Propionic Acid             | N | N |
| Propylene Glycol           | E | E |
| Propylene Oxide            | N | N |
| Resorcinol, saturated      | N | N |
| Resorcinol, 5%             | G | F |
| Salicylaldehyde            | G | F |
| Salicylic Acid, Powder     | F | F |
| Salicylic Acid, saturated  | F | F |
| Salt Solutions, Metallic   | E | E |
| Silicone Oil               | E | E |
| Silver Acetate             | E | E |
| Silver Nitrate             | E | E |

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|                              |   |   |
|------------------------------|---|---|
| Sodium Acetate, Saturated    | E | E |
| Sodium Chloride              | E | E |
| Sodium Hydroxide, 1%         | E | E |
| Sodium Hydroxide, 50% to Sat | E | E |
| Sodium Hypochlorite, 15%     | E | E |
| Stearic Acid Crystals        | E | E |
| Sulfur Dioxide, Wet or Dry   | N | N |
| Sulfur salts                 | G | G |
| Sulfuric Acid, 1-6%          | E | E |
| Sulfuric Acid, 20%           | E | E |
| Sulfuric Acid, 60%           | G | G |
| Sulfuric Acid, 98%           | N | N |
| Sulfuric Acid, 98%           | N | N |
| Tartaric Acid                | E | E |
| Tetrahydrofuran              | N | N |
| Thionyl Chloride             | N | N |
| Toluene                      | N | N |
| Tributyl Citrate             | F | N |
| Trichloroethane              | N | N |
| Trichloroethylene            | N | N |
| Triethylene Glycol           | E | E |
| Tripropylene Glycol          | E | E |
| Trichloroacetic Acid         | N | N |
| 1,2,4 Trichlorobenzene       | N | N |
| 2,2,4 Trimethylpentane       | G | F |
| Tris buffer                  | E | E |
| Turpentine                   | F | N |
| Undecyl Alcohol              | N | N |
| Urea                         | E | E |
| Vinylidene Chloride          | N | N |
| Xylene                       | N | N |
| Zinc Stearate                | E | E |

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