

# Chemical Resistance

The Pexgol Chemical Resistance List is based on information included in the professional literature. The list is only intended as a guide. Changes in the composition of the medium or special working conditions could lead to deviations. Consult the Golan Plastic Product experts in each specific case.

## Chemical Resistance Test for Pexgol Pipes

The following procedure is an initial test for the chemical resistance of Pexgol pipes. Each combination of service conditions (service temperature, chemical concentration) constitutes a different case. However, for the same pipeline, the worst case is usually the highest temperature and the highest concentration.

**The tested items are 20 "dumbbells" (also called "dogbones" or "coupons") made from Pexgol pipes.**

## Immersion Test

- The dumbbells are immersed in the same material transported through the pipeline (same chemical composition and same temperature) for a period of 4 weeks.
- After 2 weeks, 10 dumbbells are removed and stored.
- After an additional 2 weeks, the other 10 dumbbells are removed.
- The two groups of dumbbells are packed separately and the packages are marked appropriately to identify the removal and storage conditions.
- The packages are sent to Golan for tensile testing.

## Classification

- A.** Resistant: can be used within the working pressures (safety factor of 1.25).
- B.** Conditionally resistant: restrictions of 70% to 90% must be made regarding the working pressures.
- C.** Conditionally resistant: can be used within pressures up to 60% of the working pressures.
- D.** Conditionally resistant: can be used within pressures up to 20% of the working pressures.
- U.** Unknown: not recommended.

In case of dangerous liquids (strong acids and bases) the safety factor should be increased to 1.5 or 2.0.

In case of doubt please consult us.



| Compound                     | Chemical Resistance |                      |      |       |
|------------------------------|---------------------|----------------------|------|-------|
|                              | 40°C                | 60°C                 | 80°C | 100°C |
| Accumulator Acid             | A                   | A                    | A    |       |
| Acetaldehyde 40%             | A                   | A                    |      | B     |
| Acetaldehyde 100%            | U                   |                      |      |       |
| Acetamide                    | A                   | A                    | A    |       |
| Acetic Acid 05%              | A                   | A                    |      |       |
| Acetic Acid 10%              | A                   | A                    |      |       |
| Acetic Acid 20%              | A                   | A                    |      |       |
| Acetic Acid 50%              | A                   | A                    |      |       |
| Acetic Acid 60%              | A                   | A                    |      |       |
| Acetic Acid 80%              | A                   | A                    |      |       |
| Acetic Acid Ethyl Ester      | A                   | A                    |      |       |
| Acetic Anhydride             | A                   | D                    |      |       |
| Acetoacetic Acid             | A                   |                      |      |       |
| Acetone                      | C                   |                      |      |       |
| Acetophenone                 |                     |                      | B    |       |
| Acetyl Bromide               | U                   |                      |      |       |
| Acetyl Chloride              |                     |                      | B    |       |
| Acetylene                    | A                   | A                    | A    |       |
| Acetylene Dichloride         |                     | see Dichloroethylene |      |       |
| Acid mixture H2SO4-HNO3-H2O  | U                   |                      |      |       |
| Acid mixture H2SO4-H3PO4-H2O |                     | B                    |      |       |
| Acrylic emulsions            | A                   |                      |      |       |
| Acroline dispersion          | A                   |                      |      |       |
| Acroline solution            | B                   |                      |      |       |
| Acronal                      | C                   |                      |      |       |
| AcryloNitrile                | A                   | A                    | A    |       |
| Acrylic Acid                 | A                   | A                    |      |       |
| Adipic Acid                  | A                   | A                    | A    |       |
| Air                          | A                   | A                    | A    |       |
| Aktivin                      | A                   | A                    |      |       |
| Alcohol                      |                     | see Ethylalcohol     |      |       |
| Aliphatic Esters             | A                   | A                    | A    |       |
| Allyl Acetate                | A                   | C                    |      |       |
| Allyl Alcohol 7%             | A                   | A                    | A    |       |
| Allyl Alcohol 95%            | A                   |                      |      |       |
| Allyl Aldehyde               |                     | see Acroline         |      |       |
| Allyl Chloride               | C                   | U                    |      |       |
| Alum                         | A                   | A                    | A    | B     |
| Aluminium Acetate            | A                   | A                    | A    |       |
| Aluminium Chloride           | A                   | A                    | A    |       |

| Compound                       | Chemical Resistance |             |      |       |
|--------------------------------|---------------------|-------------|------|-------|
|                                | 40°C                | 60°C        | 80°C | 100°C |
| Aluminium Fluoride             | A                   | A           | A    |       |
| Aluminium Hydroxide            | A                   | A           | A    |       |
| Aluminium Metaphosphate        | A                   | A           |      |       |
| Aluminium Nitrate sol.         | A                   | A           | A    |       |
| Aluminium Phosphate            | A                   | A           | A    |       |
| Aluminium Potassium Phosphate  | A                   | A           | A    |       |
| Aluminium Potassium Sulphate   | A                   | A           | A    | A     |
| Aluminium Sodium Sulphate sol. | A                   | A           | A    |       |
| Aluminium Sulphate             | A                   | A           | A    |       |
| Amino Acids                    | A                   | A           |      | B     |
| Aminoacetic Acid               | B                   | B           |      |       |
| Ammonia Aqueous                | A                   | A           | A    |       |
| Ammonia, dry gas               | A                   | A           | A    |       |
| Ammoniacal Liquor              | A                   | A           |      |       |
| Ammonium Acetate               | A                   | A           | A    |       |
| Ammonium Aluminium Sulphate    | A                   | A           |      |       |
| Ammonium Bromide               | B                   | B           |      |       |
| Ammonium Carbonate             | A                   | A           | A    |       |
| Ammonium Chloride              | A                   | A           | A    |       |
| Ammonium Fluoride 20%          | A                   | A           | A    |       |
| Ammonium Hydrogen Carbonate    | A                   | A           | A    |       |
| Ammonium Hydrogen Sulphide     | A                   | A           | A    |       |
| Ammonium Hydroxide             | A                   | A           | A    |       |
| Ammonium Metaphosphate         | A                   | A           | A    |       |
| Ammonium Molybdate             | A                   |             | B    |       |
| Ammonium Nitrate               | A                   | A           | A    |       |
| Ammonium Persulphate           | A                   | A           | A    |       |
| Ammonium Phosphate             | A                   | A           | A    |       |
| Ammonium Sulfide               | A                   | A           | A    |       |
| Ammonium Sulphate              | A                   | A           | A    |       |
| Ammonium Sulphocyanide         | A                   |             |      |       |
| Ammonium Thiocyanate           | A                   | A           | A    |       |
| Amyl Acetate                   | A                   | A           |      |       |
| Amyl Alcohol                   | A                   | A           | A    |       |
| Amyl Chloride                  | U                   |             |      |       |
| Amyl Methyl Carbinol           | B                   |             |      |       |
| Amyl Naphthaline               | B                   |             |      |       |
| Amyl Phthalate                 | A                   | B           |      |       |
| Aniline Hydrochloride          | D                   |             |      |       |
| Aniline Sulphate               | U                   |             |      |       |
| Aniline, coloured              |                     | see Aniline |      |       |
| Aniline, pure                  | A                   | A           |      |       |

| Compound                       | Chemical Resistance    |      |      |       |
|--------------------------------|------------------------|------|------|-------|
|                                | 40°C                   | 60°C | 80°C | 100°C |
| Aniline, water soluble         | B                      |      |      |       |
| Animal Fats                    | A                      | A    | A    |       |
| Animal Oils                    | B                      | B    | B    |       |
| Anis Oil                       | B                      |      |      |       |
| Aniseed Oil                    | C                      | U    |      |       |
| Anisole                        | see Cyclohexanone      |      |      |       |
| Antifreeze solution            | A                      | A    | A    |       |
| Antimony Pentachloride         | A                      | A    | A    |       |
| Antimony Trichloride           | A                      | A    | A    |       |
| Antrhoquinone Sulphonic Acid   | A                      | A    |      |       |
| Aqua Regia                     | U                      |      |      |       |
| Aromatic Acids                 | A                      | A    | A    |       |
| Aromatic Hydrocarbons          | U                      |      |      |       |
| Arsenic                        | B                      | B    |      |       |
| Arsenic Acid 80%               | A                      | A    | A    |       |
| Arsenic Acid Anhydride         | A                      | A    |      |       |
| Arsenic Salts                  | A                      |      |      |       |
| Arsenic Trichloride            | U                      |      |      |       |
| Ascorbic Acid                  | A                      |      |      |       |
| Asphalt                        | A                      | C    |      |       |
| ASTM Oil no. 1                 | A                      | A    | A    |       |
| ASTM Oil no. 2                 | A                      | A    | A    |       |
| ASTM Oil no. 3                 | A                      | A    | A    |       |
| Atropine Sulphate              | A                      |      |      |       |
| Barium Carbonate               | A                      | A    | A    |       |
| Barium Chloride                | A                      | A    | A    |       |
| Barium Hydrosulphide, Bone Oil |                        |      | B    |       |
| Barium Hydroxide               | A                      | A    | A    |       |
| Barium Salts                   | A                      |      |      |       |
| Barium Sulphate                | A                      | A    | A    |       |
| Barium Sulphide                | A                      | A    | A    |       |
| Battery Acid                   | A                      | B    |      |       |
| Beater Glues                   | A                      |      |      |       |
| Beer Colours                   | A                      | A    | A    |       |
| Beer, trading quality          | A                      |      |      |       |
| Beet Juice                     | A                      | A    |      |       |
| Benzaldehyde 0.1%              |                        |      | C    |       |
| Benzaldehyde 100%              | A                      | C    |      |       |
| Benzaldehyde Oxime 2%          | A                      |      |      |       |
| Benzaldoxime                   | see Benzaldehyde Oxime |      |      |       |
| Benzene (Benzole)              | D                      | U    |      |       |

| Compound                   | Chemical Resistance        |      |      |       |
|----------------------------|----------------------------|------|------|-------|
|                            | 40°C                       | 60°C | 80°C | 100°C |
| Benzene Carbonic Acid      | see Benzoic Acid           |      |      |       |
| Benzene Dicarboxylic Acid  | see Phthalic Acid          |      |      |       |
| Benzene Sulphonic Acid     | A                          |      | B    |       |
| Benzoic Acid               | A                          | A    | B    |       |
| Benzole Carbon Acid        | see Benzoic Acid           |      |      |       |
| Benzole Dicarboxylic Acid  | see Phthalic Acid          |      |      |       |
| Benzole Sulphonic Acid     | U                          |      |      |       |
| Benzyl Acetate             | B                          |      |      |       |
| Benzyl Alcohol             | A                          | A    | B    |       |
| Benzyl Benzoate            |                            | B    |      |       |
| Benzyl Chloride            | A                          |      |      |       |
| Bichromate Sulfuric Acid   | B                          | U    |      |       |
| Bismuth Carbonate          | A                          | A    | A    |       |
| Bisulfite                  | see Sodium Bisulfite       |      |      |       |
| Bitumen                    | A                          | C    |      |       |
| Black Liquor               | B                          | B    |      |       |
| Bleach                     | D U                        |      |      |       |
| Bleach Lye 10%             | B                          | B    |      |       |
| Bloodstream Salt, red      | see Potassium Ferricyanide |      |      |       |
| Bloodstream Salt, yellow   | see Potassium Ferricyanide |      |      |       |
| Bone Oil                   | A                          | A    |      |       |
| Bonewax                    | A                          |      | U    |       |
| Borax                      | see Sodium Tetraborate     |      |      |       |
| Boric Acid                 | A                          | A    | A    |       |
| Boric Acid Methyl Ester    | B                          | U    |      |       |
| Boric Copper Sulphate      | A                          |      |      |       |
| Boric Trifluoride          | A                          |      |      |       |
| Boron Trifluoride          | A                          | D    |      |       |
| Brake Fluids               | A                          | A    | A    |       |
| Brandy                     | A                          |      |      |       |
| Brines, saturated          | A                          | A    | A    | A     |
| Brom Oil                   | A                          |      | B    |       |
| Bromate Solution           | A A                        |      |      |       |
| Bromoethane                | U                          |      |      |       |
| Bromic Acid                | A                          | A    | A    |       |
| Bromine Vapours, low conc. | B                          |      |      |       |
| Bromine Water              | U                          |      |      |       |
| Bromine, Liquid            | U                          |      |      |       |
| Bromochloromethane         | U                          |      |      |       |
| Butadiene 50%              | A                          | A    | A    |       |
| Butadiene 100%             | B                          |      |      |       |

| Compound                             | Chemical Resistance |      |      |       |
|--------------------------------------|---------------------|------|------|-------|
|                                      | 40°C                | 60°C | 80°C | 100°C |
| Butane (gas)                         | U                   |      |      |       |
| Butanediol up to 10%                 | A                   | A    | A    |       |
| Butanediol up to 100%                | B                   |      |      |       |
| Butanetriol                          | A                   | A    |      |       |
| Butanol 100%                         | A                   | A    | A    |       |
| Butanone                             | A                   | U    |      |       |
| Butene                               | U                   |      |      |       |
| Butoxyl                              | A                   | C    |      |       |
| Butter                               | A                   |      | B    |       |
| Butter Acid                          | C                   |      |      |       |
| Butter Acid in water, conc.          | C                   |      |      |       |
| Butter Acid in water, sol. 20%       | C                   |      |      |       |
| Butyl Acetate                        | A                   | B    | C    |       |
| Butyl Acrylate                       | A                   | B    |      |       |
| Butyl Alcohol                        | see Butanol         |      |      |       |
| Butyl Aldehyde                       | A                   |      | B    |       |
| Butyl Benzyl Phtalate                | A                   | A    |      |       |
| Butyl Carbinol                       |                     |      | B    |       |
| Butyl Cellulose solution             | U                   |      |      |       |
| Butyl Phenol                         | U                   |      |      |       |
| Butyl Stearate                       | A                   | A    | A    |       |
| Butylene                             | see Butene          |      |      |       |
| Butylene Glycol                      | see Butanediol      |      |      |       |
| Butyric Acid                         | C                   | D    |      |       |
| Cadmium Salts                        | A                   |      |      |       |
| Caffeine Citrate                     | B                   | B    |      |       |
| Calcium Acetate                      | A                   | A    | A    |       |
| Calcium Bisulphide                   | A                   | B    |      |       |
| Calcium Bisulphite                   | A                   | A    | A    |       |
| Calcium Bromide 50%                  | A                   | A    |      |       |
| Calcium Bromide 80%                  | A                   |      |      |       |
| Calcium Carbide                      | A                   | A    |      |       |
| Calcium Carbonate (Soda)             | A                   | A    | A    |       |
| Calcium Chlorate                     | A                   | A    | A    |       |
| Calcium Chloride                     | A                   | A    | A    | B     |
| Calcium Hydrosulphite containing SO2 | B                   | B    |      |       |
| Calcium Hydroxide                    | A                   | A    | A    |       |
| Calcium Hypochlorite                 | A                   | A    | A    |       |
| Calcium Nitrate                      | A                   | A    | A    |       |
| Calcium Oxide                        | A                   |      |      |       |

| Compound                   | Chemical Resistance                 |      |      |       |
|----------------------------|-------------------------------------|------|------|-------|
|                            | 40°C                                | 60°C | 80°C | 100°C |
| Calcium Phosphate          | A                                   |      |      |       |
| Calcium Sulphate           | A                                   | A    | A    |       |
| Calcium Sulphide           |                                     |      | B    |       |
| Calcium Water              | A                                   |      |      |       |
| Camphor                    | C                                   |      |      |       |
| Cane Sugar                 | A                                   |      |      |       |
| Cane Sugar Juice           | A                                   | A    | A    |       |
| Carbamide 33%              | A                                   | A    | A    |       |
| Carbazole                  | A                                   | A    |      |       |
| Carbolic Acid              | A                                   | B    |      |       |
| Carbolic Acid (Phenol)     | A                                   | A    |      |       |
| Carbolineum                | A                                   | C    |      |       |
| Carbon Bisulfide           | U                                   |      |      |       |
| Carbon Dioxide             | A                                   | A    | A    |       |
| Carbon Dioxide damp        | A                                   | A    | A    |       |
| Carbon Dioxide dry         | A                                   | A    | A    | A     |
| Carbon Disulphide          |                                     | D    | U    |       |
| Carbon Monoxide - lamp gas | A                                   | A    | A    |       |
| Carbon Tetrachloride       |                                     | D    | U    |       |
| Carbonic Acid H2CO3        | A                                   | A    |      |       |
| Carnbevox                  | A                                   |      |      |       |
| Carrot Juice               | A                                   | A    |      |       |
| Castor Oil                 | A                                   | B    |      |       |
| Caustic Potash             | A                                   | A    |      |       |
| Caustic Soda               | see Sodium Hydroxide                |      |      |       |
| Cedar Leaf Oil             | D                                   |      |      |       |
| Cedar Wood Oil             | D                                   |      |      |       |
| Cellulose Dissolver        | see Ethylene Glycol Monoethyl Ether |      |      |       |
| Cetyl Alcohol              | A                                   | A    | B    |       |
| Chalk                      | A                                   | A    | A    |       |
| Cheese Enzyme              | A                                   | A    | A    |       |
| Chloral Hydrate            | A                                   | A    | A    |       |
| Chloramine                 | A                                   | A    | A    |       |
| Chloramine T               | see Para Toluene Sulfonyl Chloride  |      |      |       |
| Chloride Acid              | see Hydrochloric Acid               |      |      |       |
| Chlorine water 10 PPM      | A                                   | A    |      |       |
| Chlorine water saturated   | A                                   |      | B    |       |
| Chlorine, damp gas         | C                                   | U    |      |       |
| Chlorine, dry gas          | B                                   |      | U    |       |
| Chlorine, liquid           | U                                   |      |      |       |

| Compound                       | Chemical Resistance       |      |      |       |
|--------------------------------|---------------------------|------|------|-------|
|                                | 40°C                      | 60°C | 80°C | 100°C |
| Chloroacetic Acid Ethyl Ester  | A                         | A    |      |       |
| Chloroacetic Acid Methyl Ester | A                         | A    |      |       |
| Chloro Carbonic Acid           | A                         | C    |      |       |
| Chloroacetic Acid 85%          | B                         | B    |      |       |
| Chloroacetic Acid 98%          | B                         |      |      |       |
| Chloroacetic Acid 100%         |                           | B    |      | U     |
| Chlorobenzene                  | D                         | U    |      |       |
| Chlorocalcium (in H2O)         | A                         | A    | A    |       |
| Chloroethane                   | see Ethyl Chloride        |      |      |       |
| Chloroethanol                  | A                         | A    | A    |       |
| Chloroethyl Alcohol            | see Chloroethanol         |      |      |       |
| Chloroethyl Phosphate          | A                         | A    |      |       |
| Chloroform                     | D                         | U    |      |       |
| Chloromethane                  | see Methyl Chloride       |      |      |       |
| Chloropicrin                   | U                         |      |      |       |
| Chloropropane                  | see Glycerine Chlorhydrin |      |      |       |
| Chlorosulfonic Acid            | U                         |      |      |       |
| Chrome Alum                    | A                         | A    | A    |       |
| Chrome Anode Mud               | A                         | A    |      |       |
| Chrome Mercury                 | B                         |      |      |       |
| Chromic Acid 50%               | A                         | A    | A    |       |
| Chromic Acid 80%               | A                         |      | B    |       |
| Chromic Acid Anhydride         | see Chromium Trioxide     |      |      |       |
| Chromium Oxide                 | see Chromium Trioxide     |      |      |       |
| Chromium Salts                 | A                         |      |      |       |
| Chromium Trioxide 20%          | A                         | A    | A    |       |
| Chromium Trioxide 50%          | A                         |      | B    |       |
| Chromium Trioxide 80%          |                           |      |      |       |
| Chromosulfuric Acid            | A                         | U    |      |       |
| Cider                          | A                         | B    |      |       |
| Cinnamon                       | B                         | C    |      |       |
| Cinnamon Oil                   | D                         |      |      |       |
| Cis - Oxime                    | see Benzaldehyde Oxime    |      |      |       |
| Citric Acid                    | A                         |      |      |       |
| Citronella                     | B                         | D    |      |       |
| Citrus Juices                  | A                         | A    |      |       |
| Cloves                         | C                         | C    |      |       |
| Coal Tar                       | D                         | U    |      |       |
| Cobalt Chloride                | A                         | A    | A    |       |
| Coca Cola                      | A                         | A    |      |       |
| Coca Cola Syrup                | A                         | B    |      |       |

| Compound                      | Chemical Resistance |      |      |       |
|-------------------------------|---------------------|------|------|-------|
|                               | 40°C                | 60°C | 80°C | 100°C |
| Coconut Oil Alcohols          | B                   | C    |      |       |
| Cocoa Fat                     | A                   | A    | A    |       |
| Cocoa Fat Alcohol             | A                   | A    | A    |       |
| Coconut Oil                   | A                   | B    |      |       |
| Cod Liver Oil                 | B                   | C    |      |       |
| Coffee                        | A                   |      |      |       |
| Cognac                        | A                   |      |      |       |
| Kola nut, concentrated        | A                   | A    | A    |       |
| Cooking Salt                  | see Sodium Chloride |      |      |       |
| Copper Acetate                |                     |      | B    |       |
| Copper Chloride (Cupric)      | A                   | A    | A    |       |
| Copper Chloride (Cuprous)     | A                   | A    | A    |       |
| Copper Cyanide                | A                   | A    | A    |       |
| Copper Fluoride               | A                   | A    | A    |       |
| Copper Nitrate                | A                   | A    | A    |       |
| Copper Salts                  | A                   | A    |      |       |
| Copper Sulphate               | A                   | A    | A    |       |
| Corn Oil                      | A                   | A    | A    |       |
| Corn Syrup                    | A                   | A    |      |       |
| Cottonseed oil                | A                   | B    | C    |       |
| Coumarone Resins              | A                   | A    |      |       |
| Cranberry Sauce               | B                   | B    |      |       |
| Creosote                      | A                   | B    |      |       |
| Cresol 100%                   | A                   | C    |      |       |
| Cresol, diluted               | A                   | C    |      |       |
| Crop Protection Agent         | A                   | A    |      |       |
| Croton Aldehyde               | A                   | C    |      |       |
| Crude Oil                     | A                   | B    | C    | D     |
| Cupric Salts Cuprous Chloride | A                   |      |      |       |
| Saturated                     | B                   | B    |      |       |
| Cuprous Oxide                 | B                   | B    |      |       |
| Cyanides                      | A                   | A    | A    |       |
| Cyclanone                     | A                   | A    |      |       |
| Cyclohexane                   | C                   | D    |      |       |
| Cyclohexanol                  | A                   |      |      |       |
| Cyclohexanone                 | D                   | U    |      |       |
| Cyclohexyl Alcohol            | A                   | B    |      |       |
| DDT                           | A                   | A    |      |       |
| Decahydro Naphthalene         | B                   | C    |      |       |
| Decalin                       | A                   | C    |      |       |
| Defoamer                      | A                   | C    |      |       |

| Compound                         | Chemical Resistance |      |      |       |
|----------------------------------|---------------------|------|------|-------|
|                                  | 40°C                | 60°C | 80°C | 100°C |
| Denatured Spirit                 | see Methyl Alcohol  |      |      |       |
| Deodorants                       | A                   | A    |      |       |
| Detergents                       | A                   | B    |      |       |
| Dextrine                         | A                   | A    | A    |       |
| Dextrose                         | A                   | A    | A    | A     |
| Diacetone                        | A                   | A    | A    |       |
| Diacetone Alcohol                | A                   |      |      |       |
| Diammonium Salts                 | A                   | A    | A    |       |
| Diazo Salts                      | A                   | A    |      |       |
| Dibenzyl Ether                   |                     |      | B    |       |
| Dibromoethane                    | D                   | U    |      |       |
| Dibutyl Ether                    | B                   | D    |      |       |
| Dibutyl Phthalate                | B                   | C    |      |       |
| Dibutyl Sebacate                 | A                   | B    | B    |       |
| Dichloroacetic Acid              | A                   | A    | A    |       |
| Dichloroacetic Acid Methyl Ester | A                   | A    | A    |       |
| Dichlorobenzene                  | C                   | U    |      |       |
| Dichloroethane                   | see Ethyl Chloride  |      |      |       |
| Dichloroethylene                 | U                   |      |      |       |
| Dichloromethane                  | see Methyl Chloride |      |      |       |
| Dicyclohexamine                  | B                   |      |      |       |
| Diesel Fuel                      | A                   | U    |      |       |
| Diesel Oil                       | A                   | U    |      |       |
| Diethylene Glycol Monobutylene   | A                   |      |      |       |
| Diethyl Benzene                  | B                   |      |      |       |
| Diethyl Ether                    | see Ethyl Ether     |      |      |       |
| Diethyl Ketone                   | B                   | C    |      |       |
| Diethyl Phthalate                | A                   |      |      |       |
| Diethylamine                     | B                   |      |      |       |
| Diethylene Dioxide               | see Dioxane         |      |      |       |
| Diethylene Glycol                | A                   | A    |      |       |
| Diglycolic Acid                  | A                   | A    | A    |       |
| Dihexyl Phthalate                | A                   | A    | A    |       |
| Diisobutylene                    |                     |      | B    |       |
| Diisopropyl Ether                | B                   | U    |      |       |
| Diisopropyl Ketone               | A                   | A    | A    |       |
| Dimethyl Amine                   | C                   | U    |      |       |
| Dimethyl Aniline                 |                     |      | B    |       |
| Dimethyl Benzole                 | see Xylol           |      |      |       |
| Dimethyl Formamide               | A                   | B    |      |       |
| Dimethyl Ketone                  | see Acetone         |      |      |       |

| Compound   | Chemical Resistance   |      |      |       |
|--|-----------------------|------|------|-------|
|  | 40°C                  | 60°C | 80°C | 100°C |
| Dimethyl Phthalate                                     | A                     | A    | A    |       |
| Dimethyl Sulphoxide                                    | A                     | A    |      |       |
| Diocetyl Phthalate                                     | B                     | C    |      |       |
| Diocetyl Sebacate                                      |                       |      | B    |       |
| Dioxalane  |                       |      | B    |       |
| Dioxane  | A                     | B    | C    |       |
| Dioxyethyl Ether                                       | see Diethylene Glycol |      |      |       |
| Diphenyl   |                       |      | B    |       |
| Diphenyl Amine   | A                     | C    |      |       |
| Diphenyl Oxide   | B                     | C    |      |       |
| Dishwasher Detergents                                  | A                     | A    | B    |       |
| Disodium Phosphate                                     | A                     | A    |      |       |
| Disodium Sulphate                                      | A                     | A    |      |       |
| Dispersions  | A                     |      |      |       |
| Dodecylbenzene Sulfonic Acid                           | A                     | C    |      |       |
| Dop (Diethylhexyl Phthalate)                           | A                     | C    |      |       |
| Edible Oil   | A                     |      |      |       |
| Electrolyte 10%  | A                     | A    | A    |       |
| Elementine normal conc.                                | A                     | A    | A    | A     |
| Emulsions, Photographic                                | A                     | A    | A    |       |
| Engine Oils  | A                     | C    |      |       |
| Ephetin  | A                     | A    |      |       |
| Epichlorohydrin  | A                     | A    | B    |       |
| Epoxy Ethane   | see Ethylene Oxide    |      |      |       |
| Epsom Salts  | A                     | A    |      |       |
| Essential Oils   | C                     | U    |      |       |
| Esteric Oils   | B                     | B    | B    |       |
| Ethanal  | see Acetaldehyde      |      |      |       |
| Ethandiol  | see Ethylene Glycol   |      |      |       |
| Ethane   | A                     | A    |      |       |
| Ethane Diamine   | see Ethylene Diamine  |      |      |       |
| Ethanol  | see Ethyl Alcohol     |      |      |       |
| Ethanolamine   | A                     | A    | B    |       |
| Ethers   | C                     | D    | U    |       |
| Ethoxyethane   | see Ethyl Ether       |      |      |       |
| Ethyl Acetate  | A                     | B    | C    |       |
| Ethyl Alcohol  | A                     | A    | A    | B     |
| Denatured with 2% Toluol plus Acetic Acid, quality use | A                     |      |      |       |
| Ethyl Benzene  | D                     | U    |      |       |
| Ethyl Benzoate   | B                     |      |      |       |
| Ethyl Carbitol   |                       |      | B    |       |

| Compound                             | Chemical Resistance |              |      |       |
|--------------------------------------|---------------------|--------------|------|-------|
|                                      | 40°C                | 60°C         | 80°C | 100°C |
| Ethyl Cellulose                      |                     |              | B    |       |
| Ethyl Chloride                       | C                   | U            |      |       |
| Ethyl Dibromide                      | C                   | U            |      |       |
| Ethyl Ether                          | C                   | D            | U    |       |
| Ethyl Formate                        |                     |              | B    |       |
| Ethyl Glycol                         |                     |              | B    |       |
| Ethyl Methyl Ketone                  |                     | see Butanone |      |       |
| Ethyl Oxalate                        | A                   | A            | A    |       |
| Ethyl Pentachloro Benzene            | U                   |              |      |       |
| Ethyl Salicylate                     | B                   |              |      |       |
| Ethyl Silicate                       | A                   | A            | A    |       |
| Ethyl Valeriate                      | A                   |              |      |       |
| Ethylamine                           | A                   | A            | A    |       |
| Ethylene                             | A                   | B            |      |       |
| Ethylene Chlorhydrin                 | U                   |              |      |       |
| Ethylene Chloride                    | U                   |              |      |       |
| Ethylene Diamine                     | A                   | A            |      |       |
| Ethylene Diamine Tetraacetic Acid    | A                   | A            |      |       |
| Ethylene Dichloride                  | D                   | U            |      |       |
| Ethylene Glycol 100% trading quality | A                   | A            | A    | B     |
| Ethylene Glycol\Monoethyl Ether      | A                   |              |      |       |
| Ethylene Oxide, gaseous              | A                   | A            |      |       |
| Ethylene Oxide, liquid               | U                   |              |      |       |
| Ethylene Trichloride                 | D                   |              |      |       |
| Ethylhexyl Alcohol                   | A                   | B            |      |       |
| Eugenol                              | B                   |              |      |       |
| Euron B                              | B                   | B            |      |       |
| Euron G                              | A                   | A            |      |       |
| Fatty Acid                           | A                   | B            | C    |       |
| Fatty Acid Amides                    | A                   | C            |      |       |
| Fatty Alcohols                       | A                   | C            |      |       |
| Fatty Oils                           | A                   | C            |      |       |
| Ferric Chloride                      | see Iron Chloride   |              |      |       |
| Ferric Nitrate                       | see Iron Nitrate    |              |      |       |
| Ferrous Ammonium Citrate             | A                   | B            |      |       |
| Ferrous Chloride                     | A                   | B            |      |       |
| Ferrous Sulphate Fe SO4              | A                   | A            |      |       |
| Fertiliser Salts                     | A                   | A            | A    | B     |
| Fir Wool Oil                         | A                   | C            |      |       |
| Fish Oil                             | A                   | A            | A    |       |

| Compound                                      | Chemical Resistance |      |      |       |
|---|---------------------|------|------|-------|
|   | 40°C                | 60°C | 80°C | 100°C |
| Fish Solubles                                 |                     | B    |      |       |
| Fluoboric Acid                                | A                   | B    |      |       |
| Fluorbenzene                                  | U                   |      |      |       |
| Fluorides                                     | A                   | A    | A    |       |
| Fluorine, liquid                              | C                   |      |      |       |
| Fluorine (solution)                           | U                   |      |      |       |
| Fluosilicic Acid 25%                          | A                   | C    |      |       |
| Formaldehyde 40%                              | A                   | A    |      |       |
| Formaldehyde, diluted                         | A                   | A    | A    |       |
| Formamide                                     | A                   | A    | A    |       |
| Formic Acid                                   | A                   | A    | B    |       |
| Freon 12                                      | C                   | U    |      |       |
| Freon 13                                      | A                   | A    | A    |       |
| Freon 21                                      | U                   |      |      |       |
| Freon 22                                      | A                   | A    | A    |       |
| Freon 113                                     | A                   |      |      |       |
| Freon 114                                     | A                   | A    | A    |       |
| Frigen  | C                   | U    |      |       |
| Fructose                                      | A                   | A    |      |       |
| Fruit Juice                                   | A                   | A    | A    |       |
| Fruit Mass (fruit pulp)                       | A                   | A    | A    |       |
| Fruit Sugar                                   | A                   |      |      |       |
| Fuel Oils                                     | A                   | D    |      |       |
| Fuming Sulphuric Acid                         | see Oleum           |      |      |       |
| Furan   | D                   |      |      |       |
| Furfural                                      | A                   | C    | U    |       |
| Furfural Alcohol                              | A                   | B    |      |       |
| Gallic Acid                                   | A                   | A    |      |       |
| Gas Liquor                                    | A                   | A    |      |       |
| Gas, Natural                                  | see Natural Gas     |      |      |       |
| Gases, containing Carbon Dioxide, Carbon Acid | A                   | A    | A    | A     |
| Gases containing Chlorine                     | A                   | A    | A    | B     |
| Gases, containing Fluorine traces             | A                   | A    | A    |       |
| Gases, containing Nitrous Oxide traces        | A                   | A    | A    |       |
| Gases, containing Oleum, low conc.            | U                   |      |      |       |
| Gases, containing Sulphur Dioxide 50%         | A                   | A    |      |       |
| Gases, containing Sulphur Dioxide, low conc.  | A                   | A    | A    | B     |
| Gases, containing Sulphuric Acid              | A                   | A    | A    |       |

| Compound                       | Chemical Resistance   |      |      |       |
|--------------------------------|-----------------------|------|------|-------|
|                                | 40°C                  | 60°C | 80°C | 100°C |
| Gasoline-Benzene mixture 80/20 | B                     |      | C    |       |
| Gasoline, Leaded               | A                     |      |      |       |
| Gasoline, pure, 100 Octane     | B                     | C    |      |       |
| Gasoline, Sour                 | A                     |      |      |       |
| Gasoline, Unleaded             | A                     |      |      |       |
| Gelatine                       | A                     | A    | A    |       |
| Genantin                       | A                     | A    |      |       |
| Gin                            | A                     | A    |      |       |
| Glaubers Salt                  | A                     | A    |      |       |
| Glucose                        | see Dextrose          |      |      |       |
| Glycerine Chlorhydrin          | A                     | A    | A    |       |
| Glycerine, Glycerol            | A                     | A    | A    |       |
| Glycerol Chlorohydrin          | A                     | A    |      |       |
| Glycine                        | see Glycol            |      |      |       |
| Glycois                        | A                     | A    |      |       |
| Glycol                         | A                     | A    |      |       |
| Glycol Dichloride              | see Ethylene Chloride |      |      |       |
| Glycol Ester                   | A                     | A    | A    |       |
| Glycolic Acid 37%              | A                     | B    |      |       |
| Glycolic Acid Butyl Ester      | A                     | A    |      |       |
| Glysantin                      | A                     | A    |      |       |
| Grape Juice                    | A                     | A    |      |       |
| Grape Sugar                    | A                     | A    |      |       |
| Grapefruit Juice               | A                     | A    |      |       |
| Grease                         | A                     |      |      |       |
| Grisiron 8302                  | B                     | B    |      |       |
| Grisiron 8702                  | A                     | A    |      |       |
| Hair Oil/Tonic Oil             | A                     | A    |      |       |
| Halothane                      | C                     | D    |      |       |
| Hand Lotions                   | A                     | A    |      |       |
| Heating Oil, Barrel Oil        | A                     |      |      |       |
| Heavy Emulsion                 | see Barium Carbonate  |      |      |       |
| Heavy Oil                      | B                     |      |      |       |
| Heptane                        | B                     | D    |      |       |
| Hexachlorobenzene              | A                     | B    |      |       |
| Hexadecylalcohol               | A                     | A    |      |       |
| Hexane                         | C                     | D    |      |       |
| Hexanetriol                    | A                     | A    |      |       |
| Hexyl Alcohol                  | D                     |      |      |       |
| Honey                          | A                     |      |      |       |
| Household Cleaners             | A                     | B    |      |       |

| Compound                            | Chemical Resistance  |      |      |       |
|-------------------------------------|----------------------|------|------|-------|
|                                     | 40°C                 | 60°C | 80°C | 100°C |
| Hydrobromic Acid 20%                | A                    | A    |      |       |
| Hydrobromic Acid 50%                | A                    | A    |      |       |
| Hydrochloric Acid 10%               | A                    | A    | A    |       |
| Hydrochloric Acid 20%               | A                    | A    | A    |       |
| Hydrochloric Acid < 30%             | A                    | A    | A    |       |
| Hydrochloric Acid ≥ 30%             | A                    | A    | B    |       |
| Hydrochloric dry gas                | A                    |      |      |       |
| Hydrocyanic Acid                    | see Hydrogen Cyanide |      |      |       |
| Hydrocyanic Acid 10%                | A                    | C    |      |       |
| Hydrofluoric Acid 20%               | A                    | A    |      |       |
| Hydrofluoric Acid 50%               | A                    | A    |      |       |
| Hydrofluoric Acid 75%, HF           | A                    | A    |      |       |
| Hydrofluosilicic Acid               | A                    | A    |      |       |
| Hydrogen                            | A                    | A    | A    |       |
| Hydrogen Bromide                    | A                    | A    | A    |       |
| Hydrogen Chloride gas dry and moist | A                    | A    | A    |       |
| Hydrogen Cyanide                    | A                    | A    | A    |       |
| Hydrogen Fluoride 40%               | A                    | A    |      |       |
| Hydrogen Fluoride 70%               | A                    |      |      |       |
| Hydrogen Peroxide 30%               | A                    | A    | A    |       |
| Hydrogen Peroxide 50%               | B                    |      |      |       |
| Hydrogen Peroxide 90%               | C                    |      |      |       |
| Hydrogen Peroxide 100%              | A                    |      |      |       |
| Hydrogen Phosphide                  | A                    |      |      |       |
| Hydrogen Sulphide, H <sub>2</sub> S | A                    | A    | A    | B     |
| Hydrogen Sulphide (Aq. Sol.)        | A                    | A    | A    | B     |
| Hydrogen Sulphide, dry              | A                    | A    | A    |       |
| Hydroquinone                        | A                    | A    |      |       |
| Hydrosulphite                       | A                    | A    |      |       |
| Hydroxylamine Sulphate              | A                    | A    |      |       |
| Hypochlorous Acid                   | A                    | A    |      |       |
| Hydraulic Fluids                    | A                    | B    |      |       |
| Hyrazine Hydrate                    | A                    | A    |      |       |
| Igepal                              | A                    | A    | A    |       |
| Ink                                 | A                    | A    | A    |       |
| Iodine                              | A                    |      |      |       |
| Iodine, alcoholic sol.              | B                    |      |      |       |
| Iodine ink                          | A                    |      |      |       |
| Iodine-Potassium Iodide, 3%         | A                    | A    |      |       |
| Iodine Solution                     | U                    |      |      |       |



| Compound                | Chemical Resistance |      |      |       |
|-------------------------|---------------------|------|------|-------|
|                         | 40°C                | 60°C | 80°C | 100°C |
| Iodine, Tincture of     | A                   | C    |      |       |
| Iron (II) Chloride      | A                   | A    | A    |       |
| Iron (II) Sulphate      | A                   | A    | A    |       |
| Iron (III) Chloride     | A                   | A    | A    | A     |
| Iron (III) Nitrate      | A                   | A    | A    |       |
| Iron (III) Sulphate     | A                   | A    | A    |       |
| Isobutyl Alcohol        | A                   | A    |      |       |
| Isooctane               | A                   | B    |      |       |
| Isopropanol             | A                   | A    |      |       |
| Isopropyl Acetate       | A                   | C    |      |       |
| Isopropyl Ether         | D                   | U    |      |       |
| Jams                    | A                   | A    |      |       |
| Kerosene                | B                   | C    |      |       |
| Kerosine                | B                   | C    |      |       |
| Ketones                 | B                   | D    |      |       |
| Labarraques Solution    | D                   | U    |      |       |
| Lacquer                 | U                   |      |      |       |
| Lactic Acid 90%         | A                   | A    | A    |       |
| Lactose                 | A                   | A    |      |       |
| Lanolin                 | A                   | A    | A    |       |
| Latex                   | A                   |      |      |       |
| Lauryl Alcohol          | B                   |      |      |       |
| Lavender Oil            |                     |      | B    |       |
| Lead Acetate            | A                   | A    | A    | B     |
| Lead Arsenate           | A                   |      |      |       |
| Lead Nitrate            | A                   | A    | A    |       |
| Lead Sulphamate         | A                   | A    | A    |       |
| Lemon Juice             | A                   | A    |      |       |
| Lemon Oil               | B                   | U    |      |       |
| Lime                    | A                   | A    |      |       |
| Lime Chloride           | A                   | A    |      |       |
| Lime Juice              | B                   | B    |      |       |
| Lime Water              | A                   | A    |      |       |
| Lind Oil                | A                   | B    | C    |       |
| Liquor, Trading Quality | C                   | U    |      |       |
| Lithium Bromide         | A                   | A    |      |       |
| LPG                     | A                   | A    |      |       |
| Lubricating Oils        | A                   | C    |      |       |
| Machine Oils            | A                   | B    |      |       |
| Magnesium Carbonate     | A                   | A    | A    |       |
| Magnesium Chloride      | A                   | A    | A    |       |

| Compound                          | Chemical Resistance |      |      |                    |
|-----------------------------------|---------------------|------|------|--------------------|
|                                   | 40°C                | 60°C | 80°C | 100°C              |
| Magnesium Fluosilicate            | A                   | A    |      |                    |
| Magnesium Hydroxide               | A                   | A    | A    |                    |
| Magnesium Iodine                  | A                   | A    |      |                    |
| Magnesium Nitrate                 | A                   | A    | A    |                    |
| Magnesium Salts                   | A                   | A    |      |                    |
| Magnesium Sulphate                | A                   | A    | A    | A                  |
| Maleic Acid                       | A                   | A    | A    | A                  |
| Malic Acid                        | A                   | A    |      |                    |
| Manganese Sulphate                | A                   | A    | A    |                    |
| Manure, liquid                    | A                   | A    |      |                    |
| Margarine                         | B                   | C    |      |                    |
| Marmalade                         | A                   | A    | A    |                    |
| Masa                              | A                   | A    |      |                    |
| Mascara                           | A                   | A    | A    |                    |
| Mash                              | A                   | A    |      |                    |
| Mayonnaise                        | A                   |      |      |                    |
| Molasses spices, industrial conc. | A                   | A    | A    |                    |
| Molasses, industrial conc.        | A                   | A    | A    | A                  |
| Menthanol                         |                     |      |      | see Menthol        |
| Menthol                           | A                   | C    |      |                    |
| Mercuric Chloride                 | A                   | B    |      |                    |
| Mercuric Cyanide                  | B                   | B    |      |                    |
| Mercurochrome                     | A                   | A    |      |                    |
| Mercurous Nitrate                 | B                   | B    |      |                    |
| Mercury                           | A                   | A    | A    |                    |
| Mercury Salts                     | A                   | A    | A    |                    |
| Mesityl Oxide                     |                     |      |      | B                  |
| Metallic Mordants                 | A                   | A    |      |                    |
| Methacrylate                      | A                   | A    |      |                    |
| Methacrylic Acid                  | A                   | A    |      |                    |
| Methane                           |                     |      |      | B                  |
| Methane Amide                     |                     |      |      | see Formamide      |
| Methanol                          |                     |      |      | see Methyl Alcohol |
| Methoxy Butanol                   | A                   | A    | A    |                    |
| Methoxybutyl Alcohol              | A                   | B    |      |                    |
| Methyl-2-Pentanone (4-)           | A                   | A    |      |                    |
| Methyl Acetate                    |                     |      |      | B                  |
| Methyl Alcohol                    | A                   | A    | A    |                    |
| Methyl Amine, 32%                 | A                   |      |      |                    |
| Methyl Bromide                    |                     |      |      | see Bromethane     |
| Methyl Butyl Ketone               | A                   | A    | A    |                    |

| Compound                             | Chemical Resistance |            |      |       |
|--------------------------------------|---------------------|------------|------|-------|
|                                      | 40°C                | 60°C       | 80°C | 100°C |
| Methyl Cellulose Solvent             | A                   |            |      |       |
| Methyl Chloride                      | D                   | U          |      |       |
| Methyl Ethyl Ketone                  | B                   | D          |      |       |
| Methyl Formate                       |                     |            | B    |       |
| Methyl Glycol                        | A                   | A          | A    |       |
| Methyl Isobutyl Ketone               | A                   | C          |      |       |
| Methyl Methacrylate                  | A                   | A          | B    |       |
| Methyl n-Propyl Ketone               | A                   | B          |      |       |
| Methyl Oleate                        | A                   | A          | A    |       |
| Methyl Phenol                        |                     | see Cresol |      |       |
| Methyl Pyrrolidone                   | A                   | A          |      |       |
| Methyl Salicate                      | B                   |            |      |       |
| Methyl Salicylate                    | A                   | B          |      |       |
| Methyl Sulphate                      | A                   | A          |      |       |
| Methyl Sulphuric Acid up to 50%      | B                   | B          |      |       |
| Methylbenzene                        | D                   | U          |      |       |
| Methylcyclohexane                    | C                   | D          |      |       |
| Methylene Chloride                   | C                   | U          |      |       |
| Milk                                 | A                   | A          | A    |       |
| Mineral Oils                         | B                   | U          |      |       |
| Mineral Spirits                      | A                   | C          |      |       |
| Mineral Water                        | A                   | A          | A    |       |
| Molasses                             | A                   | A          |      |       |
| Mold Release                         | A                   | A          |      |       |
| Monochloride Acetic Acid             | A                   | A          | A    |       |
| Monochloride Acetic Acid Ethylester  | A                   | A          | A    |       |
| Monochloride Acetic Acid Methylester | A                   | A          | A    |       |
| Monochloro Benzene                   | D                   |            |      |       |
| Monoethanolamine                     | A                   |            |      |       |
| Monoethyl Ether                      | A                   | A          | A    |       |
| Monomethyl Aniline                   | A                   | A          | A    |       |
| Morpholine                           | A                   | A          |      |       |
| Monopropylene Glycol                 | A                   | A          | A    |       |
| Motor Oil                            |                     |            | C    |       |
| Mowilth                              | A                   | A          |      |       |
| Mustard                              | A                   | B          |      |       |
| Nafta                                | B                   | U          |      |       |
| Naphthalene, Naphthaline             | A                   | C          |      |       |
| Natural Gas                          | A                   | A          |      |       |
| Nickel                               | A                   |            |      |       |
| Nickel Chloride                      | A                   | B          |      |       |

| Compound                      | Chemical Resistance |                       |      |       |
|-------------------------------|---------------------|-----------------------|------|-------|
|                               | 40°C                | 60°C                  | 80°C | 100°C |
| Nickel Nitrate                | A                   | B                     |      |       |
| Nickel Salts                  | A                   | A                     |      |       |
| Nickel Sulphate               | A                   | B                     |      |       |
| Nicotine                      | A                   | A                     |      |       |
| Nicotine Acid                 | B                   | B                     |      |       |
| Nitric Acid 30%               | A                   | A                     |      |       |
| Nitric Acid 30-50%            | B                   | C                     |      |       |
| Nitric Acid 40%               | B                   |                       |      |       |
| Nitric Acid 70%               | C                   |                       |      |       |
| Nitric Acid 98%               |                     |                       |      | U     |
| Nitrobenzene (Oil of Mirbane) | C                   | U                     |      |       |
| Nitrocellulose                | A                   |                       |      |       |
| Nitroethane                   | A                   |                       | U    |       |
| Nitrogen                      | A                   | A                     | A    |       |
| Nitroglycerin                 | B                   | D                     |      |       |
| Nitromethane                  | A                   |                       | U    |       |
| Nitrotoluene                  | A                   | B                     |      |       |
| Nitrous gases, conc.          | A                   |                       | U    |       |
| Nonyl Alcohol                 | A                   | A                     |      |       |
| Octane                        | A                   | B                     |      |       |
| Octyl Alcohol                 | A                   |                       | B    |       |
| Octyl Cresol                  | B                   | U                     |      |       |
| Oil                           | C                   | C                     |      |       |
| Oil Acid                      |                     |                       |      | C     |
| Oleic Acid                    | A                   | C                     |      |       |
| Oleic Acid (Red Oil)          | U                   |                       |      |       |
| Oleum                         | U                   |                       |      |       |
| Oleum vapour (SO3)            | B                   |                       |      |       |
| Olive Oil                     | A                   | A                     | A    |       |
| Optical Brighteners           | A                   | A                     |      |       |
| Orange Extract                | A                   | A                     |      |       |
| Ortho-Boric Acid              |                     | see Boric Acid        |      |       |
| Oxalic Acid                   | A                   | B                     |      |       |
| Oxyacetic Acid                |                     | see Glycolic Acid     |      |       |
| Oxybensole                    |                     | see Phenol            |      |       |
| Oxydiethanole                 |                     | see Diethylene Glycol |      |       |
| Oxygen                        | A                   | A                     |      |       |
| Oxypropionic Acid             |                     | see Lactic Acid       |      |       |
| Oxyrane                       |                     | see Ethylene Oxide    |      |       |
| l-Oxytoluol                   |                     | see Benzyl Alcohol    |      |       |
| m-Oxytoluol                   |                     | see Cresol            |      |       |

| Compound                                | Chemical Resistance |      |      |       |
|---|---------------------|------|------|-------|
|   | 40°C                | 60°C | 80°C | 100°C |
| Ozone                                   | C                   |      | U    |       |
| Painting Turpentine                     | see Thinner         |      |      |       |
| Palm Kernal Oil                         | A                   | A    |      |       |
| Palm Oil                                | B                   | B    |      |       |
| Palmitic Acid                           | A                   | A    | B    |       |
| Palmityl Alcohol                        | A                   | A    |      |       |
| Palmolive Oil                           | A                   |      |      |       |
| Paraffin                                | A                   | B    | C    |       |
| Paraffin Emulsion, trading qual.        |                     | B    |      |       |
| Paraffin Oil                            | A                   | A    | A    |       |
| Paraformaldehyde                        | A                   | A    |      |       |
| Paratoluene Sulpho Chloramide Sodium 1% | A                   |      |      |       |
| Peanut Butter                           | B                   | B    |      |       |
| Pentanol                                | see Amyl Alcohol    |      |      |       |
| Pentanol Acetate                        | see Amyl Acetate    |      |      |       |
| Pepper                                  | B                   | B    |      |       |
| Peppermint Oil                          | B                   | D    |      |       |
| Perchloric Acid 10%                     | A                   | A    |      |       |
| Perchloric Acid 20%                     | A                   | A    | A    |       |
| Perchloric Acid 50%                     | A                   | B    | C    |       |
| Perchloric Acid 70%                     | A                   | D    |      |       |
| Perchloro Ethylene                      | U                   |      |      |       |
| Perfumes                                | C                   | U    |      |       |
| Petroleum                               | A                   | B    | C    |       |
| Petroleum Ether                         | A                   | D    |      |       |
| Petroleum Jelly                         | B                   | B    |      |       |
| Petroleum Spirits                       | C                   | D    |      |       |
| Phenol up to 90%                        | A                   | A    |      | U     |
| Phenolic Resins                         | A                   | A    |      |       |
| Phenols 100% (Carbolic Acid)            | D                   |      |      |       |
| Phenyl Alcohol                          | see Benzyl Alcohol  |      |      |       |
| Phenyl Ethane                           | see Ethyl Benzene   |      |      |       |
| Phenyl Ethyl Alcohol                    | A                   | A    |      |       |
| Phenyl Hydrazine                        | C                   | D    |      |       |
| Phenyl Hydrazine Hydrochloride          | A                   | U    |      |       |
| Phenyl Methane                          | see Toluol          |      |      |       |
| Phenyl Methyl Ether                     | see Cyclohexanone   |      |      |       |
| Phenyl Sulfonate                        | A                   | A    |      |       |
| Phosgene, gas                           | U                   |      |      |       |
| Phosphates                              | A                   | A    | A    |       |

| Compound                     | Chemical Resistance      |      |      |       |
|------------------------------|--------------------------|------|------|-------|
|                              | 40°C                     | 60°C | 80°C | 100°C |
| Phosphoric Acid 80%          | A                        | A    | A    | A     |
| Phosphoric Acid 90%          | A                        | A    | A    | A     |
| Phosphoric Acid 95%          | A                        | A    |      |       |
| Phosphorus Oxychloride       | A                        | B    | B    |       |
| Phosphorus Pentoxide         | A                        | A    | A    |       |
| Phosphorus Trichloride       | A                        | B    |      |       |
| Phosphorus Yellow            | A                        |      |      |       |
| Photographic Developer       | A                        | A    |      |       |
| Photographic solution, Fixer | A                        | A    | A    |       |
| Phthalic Acid 50%            | A                        | A    | A    |       |
| Phtalic Acid Ester           | A                        | C    |      |       |
| Phtalic Anhydride            | B                        | B    |      |       |
| Pickling Baths               | B                        | C    |      |       |
| Picric Acid 1%               | A                        |      | B    |       |
| Pine Oil                     | B                        | D    |      |       |
| Pineapple Juice              | A                        | A    |      |       |
| Pinene                       |                          |      | B    |       |
| Plasticizers of Polyester    | A                        | B    |      |       |
| Plating Solutions, Brass     | A                        | B    |      |       |
| Plating Solutions, Cadmium   | A                        | B    |      |       |
| Plating Solutions, Copper    | A                        | B    |      |       |
| Plating Solutions, Gold      | A                        | B    |      |       |
| Plating Solutions, Indium    | A                        | B    |      |       |
| Plating Solutions, Iron      | A                        | B    |      |       |
| Plating Solutions, Lead      | A                        | B    |      |       |
| Plating Solutions, Nickel    | A                        | B    |      |       |
| Plating Solutions, Rhodium   | A                        | B    |      |       |
| Plating Solutions, Silver    | A                        | B    |      |       |
| Plating Solutions, Tin       | A                        | B    |      |       |
| Plating Solutions, Zinc      | A                        | B    |      |       |
| Polyesters (Resins)          | C                        | U    |      |       |
| Polyglycols                  | A                        | A    |      |       |
| Polysolvan O                 | A                        | A    |      |       |
| Potash Alum                  | A                        | A    |      |       |
| Potassium Acetate            |                          |      | B    |       |
| Potassium Bicarbonate        | A                        | B    |      |       |
| Potassium Bichromate 40%     | see Potassium Dichromate |      |      |       |
| Potassium Bisulfate          | A                        | A    |      |       |
| Potassium Borate 1%          | A                        | A    | A    |       |
| Potassium Bromate            | A                        | A    | A    |       |
| Potassium Bromide            | A                        | A    | A    |       |

| Compound                             | Chemical Resistance  |      |      |       |
|--------------------------------------|----------------------|------|------|-------|
|                                      | 40°C                 | 60°C | 80°C | 100°C |
| Potassium Carbonate                  | A                    | A    | A    |       |
| Potassium Chlorate                   | A                    | A    | A    |       |
| Potassium Chloride                   | A                    | A    | A    | A     |
| Potassium Chromate                   | A                    | A    | A    |       |
| Potassium Chromium Sulphate          | A                    | A    | A    | B     |
| Potassium Cupro Cyanide              | A                    | A    | A    |       |
| Potassium Cyanide                    | A                    | A    | A    |       |
| Potassium Dichromate 40%             | A                    | A    | A    |       |
| Potassium Ferricyanide               | A                    | A    | A    | B     |
| Potassium Ferrocyanide               | A                    | B    |      |       |
| Potassium Fluoride                   | A                    | A    | A    |       |
| Potassium Hydrogen Carbonate         | A                    | A    | A    |       |
| Potassium Hydrogen Sulphate          | A                    | A    | A    |       |
| Potassium Hydrogen Sulphite solution | A                    | A    | A    |       |
| Potassium Hydroxide 50%              | A                    | A    | A    |       |
| Potassium Hydroxide 60%              | A                    | A    | B    |       |
| Potassium Hypochlorite, solution     | A                    |      | B    |       |
| Potassium Iodide, cold saturated     | A                    | A    | A    |       |
| Potassium Nitrate                    | A                    | A    | A    |       |
| Potassium Orthophosphate             | A                    | A    | A    |       |
| Potassium Perborate                  | A                    | A    | A    |       |
| Potassium Perchlorate 1%             | A                    | A    | A    | A     |
| Potassium Perchlorate 10%            | A                    |      |      |       |
| Potassium Permanganate 18%           | A                    | A    | A    |       |
| Potassium Persulfate                 | A                    |      |      |       |
| Potassium Phosphate                  | A                    | A    | A    |       |
| Potassium Salts                      | A                    |      |      |       |
| Potassium Sulphate                   | A                    | A    | A    |       |
| Potassium Sulphate, cold saturated   | A                    | A    | A    |       |
| Potassium Sulphide                   | A                    | A    | A    |       |
| Potassium Sulphite                   | A                    | A    |      |       |
| Potassium Supersulphate              | A                    | A    | A    |       |
| Potassium Tetracyano Cuprate         | A                    | A    |      |       |
| Potassium Thiosulphate               | A                    | A    |      |       |
| Propargyl Alcohol                    | A                    |      |      |       |
| Propane Acid                         | see Propionic Acid   |      |      |       |
| Propanediol                          | see Propylene Glycol |      |      |       |
| Propanetriol                         | see Glycerine        |      |      |       |
| Propane, gas                         | A                    | B    |      |       |

| Compound                     | Chemical Resistance  |      |      |       |
|------------------------------|----------------------|------|------|-------|
|                              | 40°C                 | 60°C | 80°C | 100°C |
| Propane, liquid              | B                    |      |      |       |
| Propanol                     | A                    | A    | A    |       |
| Propanone                    | see Acetone          |      |      |       |
| Propargyl Alcohol            | A                    | B    |      |       |
| Propene                      | A                    | A    | A    |       |
| Propionic Acid               | A                    | A    | A    |       |
| Propyl Acetate               |                      |      | B    |       |
| Propyl Alcohol               | see Propanol         |      |      |       |
| Propylene Dichloride         | U                    |      |      |       |
| Propylene Glycol             | A                    | A    | A    |       |
| Propylene Oxide              | A                    | A    |      |       |
| Prune Juice                  | A                    |      |      |       |
| Pseudocumol/<br>Pseudocumene | B                    | B    |      |       |
| Pyridine                     | A                    | B    | C    |       |
| Pyrol                        |                      |      | B    |       |
| Quinine                      | A                    | A    |      |       |
| Rayon Coagulating Bath       | A                    | B    |      |       |
| Resorcinol                   | A                    | B    |      |       |
| Ricine Oil                   | A                    |      | B    |       |
| Rinser Loosener              | A                    | A    | A    |       |
| Road Tar                     | U                    |      |      |       |
| Roasting Gases               | A                    | A    |      |       |
| Rouge                        | A                    | A    |      |       |
| Rubbers Dispersions/Latex    | A                    | A    |      |       |
| Sagrotan                     | A                    | B    |      |       |
| Salicylic Acid               | A                    | A    | A    |       |
| Salicylic Acid Methyl Ester  | A                    | B    |      |       |
| Sauerkraut                   | A                    | A    |      |       |
| Sea Water                    | A                    | A    | A    | A     |
| Selenic Acid                 | A                    | A    |      |       |
| Shampoos, Shaving Lotion     | A                    | A    |      |       |
| Shortening                   | A                    | B    |      |       |
| Silicic Acid                 | A                    | A    |      |       |
| Silicone Fats                | A                    | A    | A    |       |
| Silicone Oils                | A                    | A    | A    |       |
| Silver Nitrate ≤80%          | A                    | A    | A    | B     |
| Silver Salts, cold saturated | A                    | A    | A    |       |
| Soap                         | A                    | A    | A    |       |
| Soap Loosener                | A                    | A    | A    |       |
| Soap Solution                | A                    | A    | A    |       |
| Soda                         | see Sodium Carbonate |      |      |       |

| Compound                              | Chemical Resistance |      |      |       | Compound   | Chemical Resistance |      |      |       |
|---------------------------------------|---------------------|------|------|-------|--|---------------------|------|------|-------|
|                                       | 40°C                | 60°C | 80°C | 100°C |  | 40°C                | 60°C | 80°C | 100°C |
| Sodium Acetate                        | A                   | A    | A    |       | Sodium Perborate                                     | A                   | C    |      |       |
| Sodium Aluminate                      | A                   | A    | A    |       | Sodium Perchlorate                                   | A                   | A    |      |       |
| Sodium Aluminium Sulphate             | A                   | A    | A    |       | Sodium Peroxide 10%                                  | A                   | A    | A    |       |
| Sodium Benzoate                       | A                   | A    | A    |       | Sodium Phosphate                                     | A                   | A    | A    |       |
| Sodium Benzoate to 36%                | A                   | A    | A    |       | Sodium Polyacrylate (GR 894)                         | A                   | A    | A    |       |
| Sodium Bicarbonate                    | A                   | A    | A    |       | Sodium Silicate                                      | A                   | A    | A    |       |
| Sodium Bisulphate                     | A                   | A    | A    |       | Sodium Sulphate                                      | A                   | A    | A    |       |
| Sodium Bisulphite                     | A                   | A    | A    | A     | Sodium Sulphide                                      | A                   | A    | A    |       |
| Sodium Borate                         | A                   | A    | A    |       | Sodium Sulphite                                      | A                   | A    | A    |       |
| Sodium Bromide                        | A                   | A    | A    |       | Sodium Tetraborate                                   | A                   | A    | A    |       |
| Sodium Carbonate                      | A                   | A    | A    |       | Sodium Thiosulphate                                  | A                   | A    | A    |       |
| Sodium Chlorate                       | A                   | A    | A    |       | Soya Oil   | A                   | B    |      |       |
| Sodium Chloride                       | A                   | A    | A    | A     | Spermaceti   | A                   | B    |      |       |
| Sodium Chlorite 50%                   | A                   | A    | A    | A     | Spindle Oil  | C                   | D    |      |       |
| Sodium Chlorite and Bleach            | A                   |      | B    |       | Spinning Oil   | A                   |      | B    |       |
| Sodium Chlorite and Water             | A                   | A    | A    | A     | Spinning-Bath Oil containing Carbon Disulphide 0.01% | A                   | A    |      |       |
| Sodium Chromate                       | A                   | A    |      |       | Spinning-Bath Oil containing Carbon Disulphide 0.07% | A                   | A    |      |       |
| Sodium Cyanide                        | A                   | A    | A    |       | Spot Solvents  | A                   | A    | A    |       |
| Sodium Dichromate                     | A                   | A    |      |       | Stain Removers                                       | C                   | D    |      |       |
| Sodium Dodecylbenzene Sulfonate       | A                   | A    |      |       | Stannic Chloride                                     | A                   | A    |      |       |
| Sodium Ferricyanide                   | A                   | A    | A    |       | Stannic Salts  | A                   |      |      |       |
| Sodium Ferrocyanide                   | A                   | A    | A    |       | Stannous Chloride                                    | A                   | A    |      |       |
| Sodium Fluoride                       | A                   | A    | A    |       | Starch   | A                   | A    | A    | A     |
| Sodium Hexacyano Ferrate              | A                   | A    |      |       | Starch Syrup   | A                   | A    | A    |       |
| Sodium Hexametaphosphate              | A                   |      |      |       | Steam  | A                   | A    | A    |       |
| Sodium Hydrogen Carbonate             | A                   | A    | A    |       | Stearic Acid   | A                   | A    | B    |       |
| Sodium Hydrogen Phosphate             | A                   | A    | A    |       | Styrene  | C                   | U    |      |       |
| Sodium Hydrogen Sulphite sol.         | A                   | A    | A    |       | Succinic Acid  | A                   | A    |      |       |
| Sodium Hydrosulphite 10%              | A                   | A    | A    |       | Sucrose Solution                                     | A                   | A    | A    |       |
| Sodium Hydroxide 15%                  | A                   | A    |      |       | Sugar  | A                   | A    |      |       |
| Sodium Hydroxide 20%                  | A                   | A    |      |       | Sulphates  | A                   | A    |      |       |
| Sodium Hydroxide 30%                  | A                   | A    |      |       | Sulphur  | A                   | A    | A    |       |
| Sodium Hydroxide 50%                  | A                   | A    |      |       | Sulphur Dioxide, dry                                 | A                   | A    | A    | B     |
| Sodium Hydroxide 70%                  | A                   | A    |      |       | wet, in water solution                               | A                   | A    | A    |       |
| Sodium Hydroxide Conc. (Caustic Soda) | A                   | A    |      |       | Sulphur Solution                                     | A                   |      |      |       |
| Sodium Hypochlorite 12%               | B                   | D    |      |       | Sulphur Trioxide                                     | U                   |      |      |       |
| Sodium Hypochlorite Solution          | B                   |      |      |       | Sulphuric Acid 20%                                   | A                   | A    | A    | A     |
| Sodium Metaphosphate                  | A                   | A    | A    |       | Sulphuric Acid 50%                                   | A                   | A    | A    | B     |
| Sodium Nitrate                        | A                   | A    | A    |       | Sulphuric Acid 70%                                   | A                   |      | C    |       |
| Sodium Nitrite                        | A                   | A    | A    |       | Sulphuric Acid 80-90%                                | A                   | A    |      |       |
|                                       |                     |      |      |       | Sulphuric Acid 96%                                   | A                   |      |      | U     |

| Compound                                | Chemical Resistance       |      |      |       |
|---|---------------------------|------|------|-------|
|   | 40°C                      | 60°C | 80°C | 100°C |
| Sulphuric Acid 98%                      | U                         |      |      |       |
| Sulphuric Ether                         | B                         | C    |      |       |
| Sulphurous Acid                         | A                         | A    |      |       |
| Sulphuryl Chloride                      | B                         |      |      |       |
| Superchloric Acid                       | see Perchloric Acid       |      |      |       |
| Synthetic Washing Powder, home quality  | A                         | A    | A    |       |
| Tallow                                  | A                         | B    |      |       |
| Tannic Acid                             | A                         | A    |      |       |
| Tannin                                  | see Ascorbic Acid         |      |      |       |
| Tar                                     | U                         |      |      |       |
| Tartaric Acid (Dihydroxy Succinic Acid) | A                         | A    |      |       |
| Tea                                     | B                         | B    |      |       |
| Tertiary Butyl Alcohol                  | A                         | A    | A    |       |
| Tetrabromo Ethane                       | D                         | U    |      |       |
| Tetrachloro Ethane                      | D                         | U    |      |       |
| Tetraethyl Lead                         | A                         |      |      |       |
| Tetrahydro Furane                       | U                         |      |      |       |
| Tetrahydro Furfuryl Alcohol             | A                         |      |      |       |
| Tetrahydro Naphtalene                   | B                         | U    |      |       |
| Tetraline                               | see Tetrahydro Naphtalene |      |      |       |
| Tetramethylene Oxide                    | see Tetrahydro Furane     |      |      |       |
| Tin Chloride                            | A                         | A    |      |       |
| Tin Salts                               | A                         | A    | A    |       |
| Thinner                                 | D                         |      |      |       |
| Thioglycolic Acid                       | A                         | A    |      |       |
| Thionyl Chloride                        | D                         | U    |      |       |
| Thiophene                               | D                         | U    |      |       |
| Titanium Tetrachloride                  | U                         |      |      |       |
| Toluene                                 | D                         | U    |      |       |
| Tomato Juice                            | A                         | A    |      |       |
| Transformer Oils                        | A                         | C    | D    |       |
| Tributyl Phosphate                      | A                         | A    |      |       |
| Tributyl Ethyl Phosphate                |                           |      | B    |       |
| Trichloro Acetic Acid                   | A                         |      | B    |       |
| Trichloro Acetic Acid 50%               | A                         | C    |      |       |
| Trichloro Benzene                       | U                         |      |      |       |
| Trichloro Ethane                        | C                         |      | U    |       |
| Trichloro Ethylene (Tri)                | U                         |      |      |       |
| Trichloro Methane                       | see Chloroform            |      |      |       |
| Tricresyl Phosphate                     | A                         | A    |      |       |
| Triethanolamine                         | A                         | B    |      |       |

| Compound                         | Chemical Resistance |      |      |       |
|----------------------------------|---------------------|------|------|-------|
|                                  | 40°C                | 60°C | 80°C | 100°C |
| Triethylene Glycol               | A                   | A    |      |       |
| Trifluoroacetic acid (TFA)       | A                   |      |      |       |
| Trilom, trade quality            | A                   | A    | A    |       |
| Trimethyl Borate                 | U                   |      |      |       |
| Trimethylbenzene                 | see Pseudocumol     |      |      |       |
| Trimethylol Propane              | A                   | A    |      |       |
| Trinitro Phenol                  | see Picric Acid     |      |      |       |
| Trinitro Toluene                 | U                   |      |      |       |
| Trioctyl Phosphate               | A                   | B    |      |       |
| Trisodium Phosphate              | A                   | B    | C    |       |
| Trybutyl Phosphate               | A                   | A    | A    |       |
| Turbine Oil                      |                     |      | B    |       |
| Turpentine                       | D                   | U    |      |       |
| Tutogen U                        | A                   | A    |      |       |
| Tween 20                         | B                   | U    |      |       |
| Tween 80                         | B                   | U    |      |       |
| Urea                             | A                   | B    |      |       |
| Uric Acid                        | A                   | A    |      |       |
| Uric Compounds                   | see Carbamide       |      |      |       |
| Urine                            | A                   | A    |      |       |
| Urine, normal conc.              | A                   | A    | A    |       |
| Vanille Extract                  | A                   | B    |      |       |
| Vaseline                         | A                   | B    | C    |       |
| Vaseline Oil                     | A                   |      | B    |       |
| Vegetable Dyes                   | A                   | A    |      |       |
| Vegetable Oils                   | B                   | B    | B    |       |
| Vinegar                          | A                   | A    | A    |       |
| Vinegar Acid Anhydride           | A                   | A    | B    | U     |
| Vinegar Acid Butyl Ester         | see Butyl Acetate   |      |      |       |
| Vinegar Acid Ethyl Ester         | see Ethyl Acetate   |      |      |       |
| Vinegar Ester                    | see Ethyl Acetate   |      |      |       |
| Vinegar, trading quality         | A                   | A    | A    |       |
| Vinyl Acetate                    | A                   | A    |      |       |
| Vinyl Chloride                   | A                   | A    | A    |       |
| Vinyl Cyanide                    | see Acrylonitrile   |      |      |       |
| Viscose Spinning Solution        | A                   | A    |      |       |
| Vitamin C                        | A                   | A    |      |       |
| Walnut Oil                       | A                   | B    |      |       |
| Waste gases with Acid            | A                   | A    |      |       |
| Waste gases with Carbon Monoxide | A                   | A    |      |       |
| Waste gases with HCL             | A                   | A    |      |       |