

CHEMICAL	POLYPROPYLENE	LDPE (SEALS)
Acetaldehyde	A <sup>1</sup> -Excellent	C-Fair
Acetamide	A <sup>1</sup> -Excellent	A-Excellent
Acetate Solvent	B <sup>1</sup> -Good	A-Excellent
Acetic Acid	B-Good	A <sup>2</sup> -Excellent
Acetic Acid 20%	A-Excellent	A-Excellent
Acetic Acid 80%	A-Excellent	B-Good
Acetic Acid, Glacial	A <sup>1</sup> -Excellent	B-Good
Acetic Anhydride	B <sup>1</sup> -Good	B-Good
Acetone	A-Excellent	B-Good
Acetyl Bromide	N/A	D-Severe Effect
Acetyl Chloride (dry)	D-Severe Effect	D-Severe Effect
Acetylene	A <sup>1</sup> -Excellent	D-Severe Effect
Acrylonitrile	A <sup>1</sup> -Excellent	A-Excellent
Adipic Acid	B <sup>2</sup> -Good	A-Excellent
Alcohols: Amyl	B <sup>1</sup> -Good	B <sup>2</sup> -Good
Alcohols: Benzyl	A-Excellent	D-Severe Effect
Alcohols: Butyl	A-Excellent	A-Excellent
Alcohols: Diacetone	B <sup>2</sup> -Good	B <sup>1</sup> -Good
Alcohols: Ethyl	A-Excellent	B-Good
Alcohols: Hexyl	N/A	A-Excellent
Alcohols: Isobutyl	A <sup>1</sup> -Excellent	A <sup>2</sup> -Excellent
Alcohols: Isopropyl	A <sup>2</sup> -Excellent	A <sup>2</sup> -Excellent
Alcohols: Methyl	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Alcohols: Octyl	N/A	A-Excellent
Alcohols: Propyl	A-Excellent	A <sup>2</sup> -Excellent
Aluminum Chloride	A-Excellent	B <sup>2</sup> -Good
Aluminum Chloride 20%	A-Excellent	B <sup>2</sup> -Good
Aluminum Fluoride	A-Excellent	B-Good
Aluminum Hydroxide	A-Excellent	B-Good
Aluminum Nitrate	A <sup>2</sup> -Excellent	A <sup>2</sup> -Excellent
Aluminum Potassium Sulfate 10%	A-Excellent	A <sup>2</sup> -Excellent
Aluminum Potassium Sulfate 100%	A-Excellent	A <sup>2</sup> -Excellent
Aluminum Sulfate	A-Excellent	B-Good
Alums	A-Excellent	A-Excellent
Amines	B <sup>2</sup> -Good	C <sup>1</sup> -Fair
Ammonia 10%	A <sup>2</sup> -Excellent	B-Good
Ammonia Nitrate	A-Excellent	B-Good
Ammonia, anhydrous	A-Excellent	B <sup>2</sup> -Good
Ammonia, liquid	A <sup>2</sup> -Excellent	B-Good
Ammonium Acetate	A-Excellent	A-Excellent
Ammonium Bifluoride	A-Excellent	A <sup>2</sup> -Excellent
Ammonium Carbonate	A-Excellent	B <sup>2</sup> -Good
Ammonium Caseinate	N/A	N/A
Ammonium Chloride	A-Excellent	B-Good
Ammonium Hydroxide	A-Excellent	B-Good
Ammonium Nitrate	A-Excellent	B-Good
Ammonium Oxalate	A-Excellent	B-Good
Ammonium Persulfate	A-Excellent	A <sup>2</sup> -Excellent
Ammonium Phosphate, Dibasic	A-Excellent	A <sup>2</sup> -Excellent
Ammonium Phosphate, Monobasic	A-Excellent	A-Excellent
Ammonium Phosphate, Tribasic	A-Excellent	C-Fair
Ammonium Sulfate	A-Excellent	A <sup>1</sup> -Excellent
Ammonium Sulfite	A <sup>2</sup> -Excellent	B <sup>2</sup> -Good
Ammonium Thiosulfate	N/A	A-Excellent
Amyl Acetate	B <sup>1</sup> -Good	C <sup>1</sup> -Fair
Amyl Alcohol	B <sup>1</sup> -Good	B <sup>2</sup> -Good
Amyl Chloride	D-Severe Effect	D-Severe Effect
Aniline	A <sup>1</sup> -Excellent	C-Fair
Aniline Hydrochloride	D-Severe Effect	D-Severe Effect
Antifreeze	A-Excellent	A-Excellent
Antimony Trichloride	A-Excellent	B <sup>2</sup> -Good
Aqua Regia (80% HCl, 20% HNO <sub>3</sub> )	B <sup>1</sup> -Good	B <sup>1</sup> -Good
Archlor 1248	D-Severe Effect	C <sup>1</sup> -Fair
Aromatic Hydrocarbons	D-Severe Effect	C-Fair
Arsenic Acid	A-Excellent	B <sup>2</sup> -Good
Arsenic Salts	N/A	B-Good
Asphalt	B <sup>1</sup> -Good	A <sup>1</sup> -Excellent
Barium Carbonate	A-Excellent	B <sup>2</sup> -Good
Barium Chloride	A-Excellent	A <sup>1</sup> -Excellent
Barium Cyanide	D-Severe Effect	B-Good
Barium Hydroxide	B-Good	B <sup>2</sup> -Good
Barium Nitrate	A-Excellent	B <sup>2</sup> -Good
Barium Sulfate	B <sup>1</sup> -Good	B <sup>2</sup> -Good
Barium Sulfide	B-Good	B <sup>2</sup> -Good
Beer	A <sup>1</sup> -Excellent	A <sup>2</sup> -Excellent
Beet Sugar Liquids	A <sup>1</sup> -Excellent	A <sup>1</sup> -Excellent
Benzaldehyde	D-Severe Effect	A <sup>1</sup> -Excellent
Benzene	D-Severe Effect	C <sup>1</sup> -Fair
Benzene Sulfonic Acid	D-Severe Effect	A <sup>1</sup> -Excellent
Benzoic Acid	B <sup>1</sup> -Good	A <sup>1</sup> -Excellent
Benzol	B-Good	C <sup>1</sup> -Fair
Benzonitrile	N/A	N/A
Benzyl Chloride	C <sup>1</sup> -Fair	N/A
Bleaching Liquors	A <sup>1</sup> -Excellent	A <sup>1</sup> -Excellent
Borax (Sodium Borate)	B-Good	A <sup>2</sup> -Excellent
Boric Acid	A-Excellent	A <sup>2</sup> -Excellent
Brewery Slop	N/A	N/A
Bromine	D-Severe Effect	D-Severe Effect
Butadiene	C-Fair	D-Severe Effect

**Ezi-action® Drumpumps are fully servicable.**

**If servicing is required ask for LDPE Seal Pack or LDPE Service Kit.**

**Alternative Seal Options are available:**

[http://www.eziactiondrumpump.com/eziaction\\_accessories](http://www.eziactiondrumpump.com/eziaction_accessories)

**The information provided on this chart is from different sources.**

**USE AS A GUIDE ONLY**

**Explanation of Footnotes**

1. Satisfactory to 72°F (22°C)

2. Satisfactory to 120°F (48°C)

**Ratings -- Chemical Effect**

**A = Excellent.**

**B = Good** -- Minor Effect, slight corrosion or discoloration.

**C = Fair** -- Moderate Effect, not recommended for continuous use. Softening, loss of strength, swelling may occur.

**D = Severe Effect**, not recommended for ANY use.

**N/A** = Information not available.

**Swelling of PP will occur with strong solvents.**

**Such swelling of the PP causes the Ezi-action® Drumpump to jam.**

Butane	A <sup>1</sup> -Excellent	C <sup>1</sup> -Fair
Butanol (Butyl Alcohol)	A <sup>1</sup> -Excellent	B <sup>2</sup> -Good
Butter	N/A	N/A
Buttermilk	A <sup>1</sup> -Excellent	A <sup>1</sup> -Excellent
Butyl Amine	B <sup>1</sup> -Good	C <sup>1</sup> -Fair
Butyl Ether	D- Severe Effect	N/A
Butyl Phthalate	B <sup>2</sup> -Good	C <sup>1</sup> -Fair
Butylacetate	B <sup>1</sup> -Good	C <sup>1</sup> -Fair
Butylene	N/A	B <sup>1</sup> -Good
Butyric Acid	B <sup>1</sup> -Good	D- Severe Effect
Calcium Bisulfate	N/A	N/A
Calcium Bisulfide	A-Excellent	B <sup>1</sup> -Good
Calcium Bisulfite	A-Excellent	A <sup>1</sup> -Excellent
Calcium Carbonate	A-Excellent	B <sup>1</sup> -Good
Calcium Chlorate	N/A	N/A
Calcium Chloride	A <sup>2</sup> -Excellent	B <sup>2</sup> -Good
Calcium Hydroxide	A <sup>2</sup> -Excellent	A <sup>2</sup> -Excellent
Calcium Hypochlorite	A <sup>1</sup> -Excellent	A <sup>1</sup> -Excellent
Calcium Nitrate	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Calcium Oxide	A-Excellent	B <sup>1</sup> -Good
Calcium Sulfate	A-Excellent	B <sup>1</sup> -Good
Calgon	A-Excellent	N/A
Cane Juice	C <sup>1</sup> -Fair	N/A
Carbolic Acid (Phenol)	B-Good	D- Severe Effect
Carbon Bisulfide	D- Severe Effect	N/A
Carbon Dioxide (dry)	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Carbon Dioxide (wet)	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Carbon Disulfide	D- Severe Effect	C <sup>1</sup> -Fair
Carbon Monoxide	A-Excellent	A <sup>2</sup> -Excellent
Carbon Tetrachloride	D- Severe Effect	D- Severe Effect
Carbon Tetrachloride (dry)	D- Severe Effect	D- Severe Effect
Carbon Tetrachloride (wet)	D- Severe Effect	N/A
Carbonated Water	B-Good	A-Excellent
Carbonic Acid	A-Excellent	B <sup>2</sup> -Good
Catsup	A-Excellent	N/A
Chloric Acid	N/A	N/A
Chlorinated Glue	N/A	N/A
Chloroacetic Acid	C <sup>1</sup> -Fair	D- Severe Effect
Chlorobenzene (Mono)	C <sup>1</sup> -Fair	C <sup>1</sup> -Fair
Chlorobromomethane	A-Excellent	A-Excellent
Chloroform	C <sup>1</sup> -Fair	C <sup>1</sup> -Fair
Chlorosulfonic Acid	D- Severe Effect	D- Severe Effect
Chocolate Syrup	A <sup>2</sup> -Excellent	N/A
Chromic Acid 10%	A-Excellent	A-Excellent
Chromic Acid 30%	A-Excellent	A-Excellent
Chromic Acid 5%	A-Excellent	A-Excellent
Chromic Acid 50%	B-Good	A-Excellent
Chromium Salts	N/A	B-Good
Cider	A-Excellent	B-Good
Citric Acid	A-Excellent	A-Excellent
Citric Oils	A-Excellent	N/A
Cloroxr (Bleach)	D- Severe Effect	N/A
Coffee	A-Excellent	N/A
Copper Chloride	A-Excellent	N/A
Copper Cyanide	A-Excellent	B <sup>2</sup> -Good
Copper Fluoborate	N/A	N/A
Copper Nitrate	A-Excellent	B <sup>2</sup> -Good
Copper Sulfate >5%	A-Excellent	A <sup>2</sup> -Excellent
Copper Sulfate 5%	A-Excellent	A <sup>2</sup> -Excellent
Cream	A-Excellent	N/A
Cresols	D- Severe Effect	C <sup>1</sup> -Fair
Cresylic Acid	A <sup>1</sup> -Excellent	B <sup>1</sup> -Good
Cupric Acid	A <sup>2</sup> -Excellent	B <sup>1</sup> -Good
Cyanic Acid	N/A	N/A
Cyclohexane	D- Severe Effect	B <sup>1</sup> -Good
Cyclohexanone	D- Severe Effect	D- Severe Effect
Detergents	A-Excellent	A-Excellent
Diacetone Alcohol	A <sup>1</sup> -Excellent	A-Excellent
Dichlorobenzene	C <sup>1</sup> -Fair	N/A
Dichloroethane	D- Severe Effect	C <sup>1</sup> -Fair
Diesel Fuel	B <sup>1</sup> -Good	C <sup>1</sup> -Fair
Diethyl Ether	A <sup>1</sup> -Excellent	N/A
Diethylamine	A <sup>1</sup> -Excellent	D- Severe Effect
Diethylene Glycol	A <sup>2</sup> -Excellent	B <sup>2</sup> -Good
Dimethyl Aniline	D- Severe Effect	N/A
Dimethyl Formamide	A-Excellent	A-Excellent
Diphenyl	D- Severe Effect	N/A
Diphenyl Oxide	D- Severe Effect	N/A
Dyes	N/A	N/A
Epsom Salts (Magnesium Sulfate)	A-Excellent	A <sup>2</sup> -Excellent
Ethane	D- Severe Effect	N/A
Ethanol	A-Excellent	B-Good
Ethanolamine	D- Severe Effect	N/A
Ether	D- Severe Effect	D- Severe Effect
Ethyl Acetate	A <sup>1</sup> -Excellent	A-Excellent
Ethyl Benzoate	B <sup>1</sup> -Good	C <sup>2</sup> -Fair
Ethyl Chloride	D- Severe Effect	C <sup>1</sup> -Fair
Ethyl Ether	D- Severe Effect	D- Severe Effect
Ethyl Sulfate	N/A	N/A
Ethylene Bromide	D- Severe Effect	D- Severe Effect
Ethylene Chloride	C <sup>1</sup> -Fair	D- Severe Effect

Ethylene Chlorohydrin	D-Severe Effect	D-Severe Effect
Ethylene Diamine	N/A	A-Excellent
Ethylene Dichloride	D-Severe Effect	D-Severe Effect
Ethylene Glycol	A-Excellent	A <sup>2</sup> -Excellent
Ethylene Oxide	D-Severe Effect	A-Excellent
Fatty Acids	A-Excellent	D-Severe Effect
Ferric Chloride	A-Excellent	A <sup>1</sup> -Excellent
Ferric Nitrate	A-Excellent	A <sup>2</sup> -Excellent
Ferric Sulfate	A-Excellent	A <sup>2</sup> -Excellent
Ferrous Chloride	A-Excellent	A <sup>2</sup> -Excellent
Ferrous Sulfate	A-Excellent	A <sup>2</sup> -Excellent
Fluoboric Acid	A-Excellent	A <sup>2</sup> -Excellent
Fluorine	D-Severe Effect	D-Severe Effect
Fluosilicic Acid	A-Excellent	A <sup>2</sup> -Excellent
Formaldehyde 100%	C-Fair	B-Good
Formaldehyde 40%	A-Excellent	B <sup>1</sup> -Good
Formic Acid	A <sup>1</sup> -Excellent	B-Good
Freon 113	D-Severe Effect	N/A
Freon 12	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Freon 22	B-Good	N/A
Freon TF	D-Severe Effect	N/A
Freonr 11	A-Excellent	C-Fair
Fruit Juice	B-Good	A-Excellent
Fuel Oils	A-Excellent	B-Good
Furan Resin	D-Severe Effect	D-Severe Effect
Furfural	D-Severe Effect	D-Severe Effect
Gallic Acid	A-Excellent	A-Excellent
Gasoline (high-aromatic)	A-Excellent	A-Excellent
Gasoline, leaded, ref.	B-Good	N/A
Gasoline, unleaded	C <sup>1</sup> -Fair	N/A
Gelatin	A-Excellent	A <sup>2</sup> -Excellent
Glucose	A-Excellent	A <sup>2</sup> -Excellent
Glue, P.V.A.	N/A	A <sup>1</sup> -Excellent
Glycerin	A-Excellent	A <sup>1</sup> -Excellent
Glycolic Acid	A-Excellent	A <sup>2</sup> -Excellent
Gold Monocyanide	N/A	N/A
Grape Juice	N/A	B-Good
Grease	N/A	N/A
Heptane	C <sup>2</sup> -Fair	B <sup>1</sup> -Good
Hexane	D-Severe Effect	D-Severe Effect
Honey	A-Excellent	B-Good
Hydraulic Oil (Petro)	D-Severe Effect	C-Fair
Hydraulic Oil (Synthetic)	D-Severe Effect	A-Excellent
Hydrazine	C-Fair	N/A
Hydrobromic Acid 100%	C <sup>1</sup> -Fair	B <sup>1</sup> -Good
Hydrobromic Acid 20%	A <sup>2</sup> -Excellent	B <sup>2</sup> -Good
Hydrochloric Acid 100%	B <sup>1</sup> -Good	N/A
Hydrochloric Acid 20%	B <sup>2</sup> -Good	A <sup>2</sup> -Excellent
Hydrochloric Acid 37%	C-Fair	B <sup>2</sup> -Good
Hydrochloric Acid, Dry Gas	B-Good	A <sup>2</sup> -Excellent
Hydrocyanic Acid	A-Excellent	A <sup>2</sup> -Excellent
Hydrocyanic Acid (Gas 10%)	A-Excellent	N/A
Hydrofluoric Acid 100%	C <sup>1</sup> -Fair	N/A
Hydrofluoric Acid 20%	A <sup>2</sup> -Excellent	A <sup>2</sup> -Excellent
Hydrofluoric Acid 50%	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Hydrofluoric Acid 75%	C <sup>1</sup> -Fair	C <sup>1</sup> -Fair
Hydrofluosilicic Acid 100%	A-Excellent	B <sup>1</sup> -Good
Hydrofluosilicic Acid 20%	A-Excellent	B <sup>2</sup> -Good
Hydrogen Gas	A-Excellent	A <sup>2</sup> -Excellent
Hydrogen Peroxide 10%	A-Excellent	A-Excellent
Hydrogen Peroxide 100%	B <sup>1</sup> -Good	C <sup>2</sup> -Fair
Hydrogen Peroxide 30%	B <sup>1</sup> -Good	C <sup>2</sup> -Fair
Hydrogen Peroxide 50%	B <sup>1</sup> -Good	C <sup>2</sup> -Fair
Hydrogen Sulfide (aqua)	A <sup>1</sup> -Excellent	A-Excellent
Hydrogen Sulfide (dry)	A <sup>1</sup> -Excellent	A-Excellent
Hydroquinone	A-Excellent	A-Excellent
Hydroxyacetic Acid 70%	N/A	A-Excellent
Ink	N/A	N/A
Iodine	A-Excellent	B-Good
Iodine (in alcohol)	N/A	B-Good
Iodoform	N/A	N/A
Isooctane	A <sup>2</sup> -Excellent	B-Good
Isopropyl Acetate	B <sup>1</sup> -Good	B <sup>1</sup> -Good
Isopropyl Ether	B-Good	B-Good
Isotane	D-Severe Effect	N/A
Jet Fuel (JP3, JP4, JP5)	A <sup>1</sup> -Excellent	D-Severe Effect
Kerosene	D-Severe Effect	D-Severe Effect
Ketones	C-Fair	C <sup>1</sup> -Fair
Lacquer Thinners	D-Severe Effect	D-Severe Effect
Lacquers	D-Severe Effect	D-Severe Effect
Lactic Acid	B-Good	A <sup>1</sup> -Excellent
Lard	B <sup>1</sup> -Good	A-Excellent
Latex	A <sup>2</sup> -Excellent	N/A
Lead Acetate	A <sup>1</sup> -Excellent	A <sup>2</sup> -Excellent
Lead Nitrate	A <sup>2</sup> -Excellent	A <sup>2</sup> -Excellent
Lead Sulfamate	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Ligroin	A <sup>2</sup> -Excellent	A-Excellent
Lime	N/A	A-Excellent
Linoleic Acid	B <sup>1</sup> -Good	A-Excellent
Lithium Chloride	A <sup>2</sup> -Excellent	A <sup>2</sup> -Excellent
Lithium Hydroxide	N/A	N/A

Lubricants	A <sup>1</sup> -Excellent	D-Severe Effect
Lye: Ca(OH) <sub>2</sub> Calcium Hydroxide	A <sup>2</sup> -Excellent	A <sup>2</sup> -Excellent
Lye: KOH Potassium Hydroxide	A-Excellent	A-Excellent
Lye: NaOH Sodium Hydroxide	A-Excellent	A-Excellent
Magnesium Bisulfate	A <sup>2</sup> -Excellent	N/A
Magnesium Carbonate	A-Excellent	B-Good
Magnesium Chloride	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Magnesium Hydroxide	A-Excellent	A <sup>2</sup> -Excellent
Magnesium Nitrate	A-Excellent	A <sup>2</sup> -Excellent
Magnesium Oxide	N/A	N/A
Magnesium Sulfate (Epsom Salts)	A-Excellent	A <sup>2</sup> -Excellent
Maleic Acid	A-Excellent	B <sup>2</sup> -Good
Maleic Anhydride	D-Severe Effect	D-Severe Effect
Malic Acid	A <sup>1</sup> -Excellent	B <sup>2</sup> -Good
Manganese Sulfate	N/A	A <sup>1</sup> -Excellent
Mash	N/A	A-Excellent
Mayonnaise	N/A	D-Severe Effect
Melamine	A-Excellent	N/A
Mercuric Chloride (dilute)	B-Good	A-Excellent
Mercuric Cyanide	B-Good	A-Excellent
Mercurous Nitrate	A-Excellent	A-Excellent
Mercury	B-Good	A-Excellent
Methane	A-Excellent	N/A
Methanol (Methyl Alcohol)	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Methyl Acetate	D-Severe Effect	B <sup>1</sup> -Good
Methyl Acetone	N/A	N/A
Methyl Acrylate	D-Severe Effect	N/A
Methyl Alcohol 10%	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Methyl Bromide	C-Fair	C <sup>1</sup> -Fair
Methyl Butyl Ketone	D-Severe Effect	N/A
Methyl Cellosolve	B-Good	N/A
Methyl Chloride	D-Severe Effect	C <sup>1</sup> -Fair
Methyl Dichloride	D-Severe Effect	N/A
Methyl Ethyl Ketone	D-Severe Effect	D-Severe Effect
Methyl Ethyl Ketone Peroxide	N/A	N/A
Methyl Isobutyl Ketone	D-Severe Effect	D-Severe Effect
Methyl Isopropyl Ketone	N/A	D-Severe Effect
Methyl Methacrylate	D-Severe Effect	N/A
Methylamine	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Methylene Chloride	B <sup>1</sup> -Good	D-Severe Effect
Milk	B-Good	A-Excellent
Mineral Spirits	D-Severe Effect	D-Severe Effect
Molasses	B-Good	A-Excellent
Monochloroacetic acid	N/A	N/A
Monoethanolamine	B-Good	C-Fair
Morpholine	B <sup>2</sup> -Good	N/A
Motor oil	A <sup>1</sup> -Excellent	C <sup>1</sup> -Fair
Mustard	A-Excellent	A-Excellent
Naphtha	B-Good	A <sup>1</sup> -Excellent
Naphthalene	B-Good	C-Fair
Natural Gas	A-Excellent	A-Excellent
Nickel Chloride	A-Excellent	A-Excellent
Nickel Nitrate	A <sup>2</sup> -Excellent	A-Excellent
Nickel Sulfate	A-Excellent	A-Excellent
Nitrating Acid (<15% HNO <sub>3</sub> )	C-Fair	N/A
Nitrating Acid (>15% H <sub>2</sub> SO <sub>4</sub> )	C-Fair	N/A
Nitrating Acid (S1% Acid)	C-Fair	N/A
Nitrating Acid (S15% H <sub>2</sub> SO <sub>4</sub> )	C-Fair	N/A
Nitric Acid (20%)	A <sup>2</sup> -Excellent	C-Fair
Nitric Acid (50%)	B-Good	B <sup>1</sup> -Good
Nitric Acid (5-10%)	A-Excellent	B-Good
Nitric Acid (Concentrated)	C-Fair	C <sup>1</sup> -Fair
Nitrobenzene	B <sup>1</sup> -Good	C <sup>1</sup> -Fair
Nitrogen Fertilizer	N/A	N/A
Nitromethane	B <sup>2</sup> -Good	A-Excellent
Nitrous Acid	A-Excellent	N/A
Nitrous Oxide	D-Severe Effect	C-Fair
Oils:Aniline	A-Excellent	N/A
Oils:Anise	N/A	N/A
Oils:Bay	N/A	N/A
Oils:Bone	A-Excellent	N/A
Oils:Castor	A-Excellent	N/A
Oils:Cinnamon	D-Severe Effect	D-Severe Effect
Oils:Citric	A-Excellent	A-Excellent
Oils:Clove	N/A	N/A
Oils:Coconut	A <sup>1</sup> -Excellent	A-Excellent
Oils:Cod Liver	A <sup>1</sup> -Excellent	N/A
Oils:Com	A <sup>2</sup> -Excellent	A-Excellent
Oils:Cottonseed	A-Excellent	A-Excellent
Oils:Creosote	C-Fair	C-Fair
Oils:Diesel Fuel (20, 30, 40, 50)	B-Good	C-Fair
Oils:Fuel (1, 2, 3, 5A, 5B, 6)	B-Good	B-Good
Oils:Ginger	N/A	N/A
Oils:Hydraulic Oil (Petro)	D-Severe Effect	C-Fair
Oils:Hydraulic Oil (Synthetic)	D-Severe Effect	A-Excellent
Oils:Lemon	N/A	N/A
Oils:Linseed	A-Excellent	A-Excellent
Oils:Mineral	A-Excellent	B <sup>1</sup> -Good
Oils:Olive	A-Excellent	A <sup>1</sup> -Excellent
Oils:Orange	A-Excellent	C <sup>1</sup> -Fair
Oils:Palm	N/A	A-Excellent

Oils: Peanut	D- Severe Effect	A- Excellent
Oils: Peppermint	N/A	N/A
Oils: Pine	B- Good	D- Severe Effect
Oils: Rapeseed	D- Severe Effect	D- Severe Effect
Oils: Rosin	A <sup>2</sup> - Excellent	B <sup>2</sup> - Good
Oils: Sesame Seed	A- Excellent	N/A
Oils: Silicone	C- Fair	C- Fair
Oils: Soybean	A <sup>1</sup> - Excellent	A <sup>1</sup> - Excellent
Oils: Sperm (whale)	N/A	N/A
Oils: Tanning	N/A	N/A
Oils: Transformer	B- Good	C <sup>1</sup> - Fair
Oils: Turbine	B <sup>1</sup> - Good	C- Fair
Oleic Acid	B <sup>1</sup> - Good	C <sup>2</sup> - Fair
Oleum 100%	D- Severe Effect	D- Severe Effect
Oleum 25%	D- Severe Effect	D- Severe Effect
Oxalic Acid (cold)	A <sup>2</sup> - Excellent	A <sup>2</sup> - Excellent
Ozone	B- Good	C <sup>1</sup> - Fair
Palmitic Acid	B <sup>1</sup> - Good	N/A
Paraffin	A <sup>1</sup> - Excellent	B- Good
Pentane	D- Severe Effect	D- Severe Effect
Perchloric Acid	C- Fair	B- Good
Perchloroethylene	D- Severe Effect	D- Severe Effect
Petrolatum	D- Severe Effect	B- Good
Petroleum	D- Severe Effect	D- Severe Effect
Phenol (10%)	B <sup>1</sup> - Good	B- Good
Phenol (Carbolic Acid)	B- Good	D- Severe Effect
Phosphoric Acid (>40%)	A <sup>2</sup> - Excellent	B <sup>1</sup> - Good
Phosphoric Acid (crude)	B <sup>2</sup> - Good	B <sup>1</sup> - Good
Phosphoric Acid (molten)	D- Severe Effect	N/A
Phosphoric Acid (S40%)	A <sup>2</sup> - Excellent	A- Excellent
Phosphoric Acid Anhydride	A- Excellent	N/A
Phosphorus	A- Excellent	B- Good
Phosphorus Trichloride	N/A	B- Good
Photographic Developer	A- Excellent	A- Excellent
Photographic Solutions	A <sup>2</sup> - Excellent	A- Excellent
Phthalic Acid	A- Excellent	B <sup>2</sup> - Good
Phthalic Anhydride	D- Severe Effect	N/A
Picric Acid	B <sup>1</sup> - Good	A- Excellent
Plating Solutions, Antimony Plating 130°F	A- Excellent	N/A
Plating Solutions, Arsenic Plating 110°F	A- Excellent	N/A
Plating Solutions, Brass Plating: High-Speed Brass Bath 110°F	A- Excellent	B- Good
Plating Solutions, Brass Plating: Regular Brass Bath 100°F	A- Excellent	B- Good
Plating Solutions, Bronze Plating: Cu-Cd Bronze Bath R.T.	A- Excellent	N/A
Plating Solutions, Bronze Plating: Cu-Sn Bronze Bath 160°F	A- Excellent	N/A
Plating Solutions, Bronze Plating: Cu-Zn Bronze Bath 100°F	A- Excellent	N/A
Plating Solutions, Cadmium Plating: Cyanide Bath 90°F	A- Excellent	N/A
Plating Solutions, Cadmium Plating: Fluoborate Bath 100°F	A- Excellent	N/A
Plating Solutions, Chromium Plating: Barrel Chrome Bath 95°F	A- Excellent	N/A
Plating Solutions, Chromium Plating: Black Chrome Bath 115°F	A- Excellent	N/A
Plating Solutions, Chromium Plating: Chromic-Sulfuric Bath 130°F	A- Excellent	N/A
Plating Solutions, Chromium Plating: Fluoride Bath 130°F	A- Excellent	N/A
Plating Solutions, Chromium Plating: Fluosilicate Bath 95°F	D- Severe Effect	N/A
Plating Solutions, Copper Plating (Acid): Copper Fluoborate Bath 120°F	A- Excellent	N/A
Plating Solutions, Copper Plating (Acid): Copper Sulfate Bath R.T.	A- Excellent	N/A
Plating Solutions, Copper Plating (Cyanide): Copper Strike Bath 120°F	A- Excellent	N/A
Plating Solutions, Copper Plating (Cyanide): High-Speed Bath 180°F	A- Excellent	N/A
Plating Solutions, Copper Plating (Cyanide): Rochelle Salt Bath 150°F	A- Excellent	N/A
Plating Solutions, Copper Plating (Misc): Copper (Electroless)	A- Excellent	N/A
Plating Solutions, Copper Plating (Misc): Copper Pyrophosphate	A- Excellent	N/A
Plating Solutions, Gold Plating: Acid 75°F	A- Excellent	N/A
Plating Solutions, Gold Plating: Cyanide 150°F	A- Excellent	N/A
Plating Solutions, Gold Plating: Neutral 75°F	A- Excellent	N/A
Plating Solutions, Indium Sulfamate Plating R.T.	A- Excellent	N/A
Plating Solutions, Iron Plating: Ferrous Am Sulfate Bath 150°F	A- Excellent	N/A
Plating Solutions, Iron Plating: Ferrous Chloride Bath 190°F	C- Fair	N/A
Plating Solutions, Iron Plating: Ferrous Sulfate Bath 150°F	A- Excellent	N/A
Plating Solutions, Iron Plating: Fluoborate Bath 145°F	A- Excellent	N/A
Plating Solutions, Iron Plating: Sulfamate 140°F	A- Excellent	N/A

Plating Solutions, Iron Plating: Sulfate-Chloride Bath 160°F	A-Excellent	N/A
Plating Solutions, Lead Fluoborate Plating	A-Excellent	N/A
Plating Solutions, Nickel Plating: Electroless 200°F	D-Severe Effect	N/A
Plating Solutions, Nickel Plating: Fluoborate 100-170°F	A-Excellent	N/A
Plating Solutions, Nickel Plating: High-Chloride 130-160°F	A-Excellent	N/A
Plating Solutions, Nickel Plating: Sulfamate 100-140°F	A-Excellent	N/A
Plating Solutions, Nickel Plating: Watts Type 115-160°F	A-Excellent	N/A
Plating Solutions, Rhodium Plating 120°F	A-Excellent	N/A
Plating Solutions, Silver Plating 80-120°F	A-Excellent	N/A
Plating Solutions, Tin-Fluoborate Plating 100°F	A-Excellent	N/A
Plating Solutions, Tin-Lead Plating 100°F	A-Excellent	N/A
Plating Solutions, Zinc Plating: Acid Chloride 140°F	A-Excellent	N/A
Plating Solutions, Zinc Plating: Acid Fluoborate Bath R.T.	A-Excellent	N/A
Plating Solutions, Zinc Plating: Acid Sulfate Bath 150°F	A-Excellent	N/A
Plating Solutions, Zinc Plating: Alkaline Cyanide Bath R.T.	A-Excellent	N/A
Potash (Potassium Carbonate)	A-Excellent	A <sup>1</sup> -Excellent
Potassium Bicarbonate	A-Excellent	A-Excellent
Potassium Bromide	A-Excellent	A-Excellent
Potassium Chlorate	A-Excellent	A <sup>1</sup> -Excellent
Potassium Chloride	A-Excellent	A <sup>1</sup> -Excellent
Potassium Chromate	A-Excellent	A-Excellent
Potassium Cyanide Solutions	A-Excellent	A-Excellent
Potassium Dichromate	A-Excellent	A-Excellent
Potassium Ferricyanide	A <sup>2</sup> -Excellent	A <sup>2</sup> -Excellent
Potassium Ferrocyanide	A-Excellent	A <sup>1</sup> -Excellent
Potassium Hydroxide (Caustic Potash)	A-Excellent	A-Excellent
Potassium Hypochlorite	N/A	C <sup>1</sup> -Fair
Potassium Iodide	A <sup>2</sup> -Excellent	B <sup>1</sup> -Good
Potassium Nitrate	A-Excellent	A-Excellent
Potassium Oxalate	N/A	N/A
Potassium Permanganate	A <sup>1</sup> -Excellent	A-Excellent
Potassium Sulfate	A-Excellent	A <sup>2</sup> -Excellent
Potassium Sulfide	A-Excellent	A <sup>2</sup> -Excellent
Propane (liquefied)	A-Excellent	C <sup>1</sup> -Fair
Propylene	N/A	N/A
Propylene Glycol	A <sup>2</sup> -Excellent	B <sup>2</sup> -Good
Pyridine	A <sup>2</sup> -Excellent	B <sup>1</sup> -Good
Pyrogallol Acid	A-Excellent	N/A
Resorcinol	A <sup>2</sup> -Excellent	B <sup>2</sup> -Good
Rosins	A <sup>2</sup> -Excellent	B <sup>1</sup> -Good
Rum	A-Excellent	N/A
Rust Inhibitors	A-Excellent	N/A
Salad Dressings	A-Excellent	N/A
Salicylic Acid	A <sup>1</sup> -Excellent	B <sup>2</sup> -Good
Salt Brine (NaCl saturated)	A-Excellent	A-Excellent
Sea Water	A-Excellent	A <sup>2</sup> -Excellent
Shellac (Bleached)	A-Excellent	A <sup>1</sup> -Excellent
Shellac (Orange)	A-Excellent	A <sup>1</sup> -Excellent
Silicone	A-Excellent	N/A
Silver Bromide	N/A	A-Excellent
Silver Nitrate	A <sup>1</sup> -Excellent	A-Excellent
Soap Solutions	A-Excellent	D-Severe Effect
Soda Ash (see Sodium Carbonate)	A-Excellent	B-Good
Sodium Acetate	A-Excellent	A-Excellent
Sodium Aluminate	N/A	N/A
Sodium Benzoate	A <sup>2</sup> -Excellent	A <sup>2</sup> -Excellent
Sodium Bicarbonate	A-Excellent	A <sup>2</sup> -Excellent
Sodium Bisulfate	A-Excellent	A <sup>2</sup> -Excellent
Sodium Bisulfite	A-Excellent	A <sup>2</sup> -Excellent
Sodium Borate (Borax)	A <sup>2</sup> -Excellent	A <sup>2</sup> -Excellent
Sodium Bromide	N/A	A <sup>2</sup> -Excellent
Sodium Carbonate	A-Excellent	B <sup>2</sup> -Good
Sodium Chlorate	A-Excellent	B <sup>2</sup> -Good
Sodium Chloride	A-Excellent	A <sup>2</sup> -Excellent
Sodium Chromate	N/A	N/A
Sodium Cyanide	A-Excellent	A <sup>2</sup> -Excellent
Sodium Ferrocyanide	A-Excellent	A-Excellent
Sodium Fluoride	A-Excellent	A <sup>2</sup> -Excellent
Sodium Hydrosulfite	N/A	N/A
Sodium Hydroxide (20%)	A-Excellent	A-Excellent
Sodium Hydroxide (50%)	A-Excellent	A-Excellent
Sodium Hydroxide (80%)	A-Excellent	B-Good
Sodium Hypochlorite (<20%)	A-Excellent	A-Excellent
Sodium Hypochlorite (100%)	B-Good	B <sup>2</sup> -Good
Sodium Hyposulfate	N/A	N/A
Sodium Metaphosphate	A <sup>1</sup> -Excellent	A <sup>1</sup> -Excellent
Sodium Metasilicate	A-Excellent	N/A
Sodium Nitrate	A-Excellent	A <sup>2</sup> -Excellent
Sodium Perborate	A-Excellent	A <sup>1</sup> -Excellent
Sodium Peroxide	B-Good	A-Excellent
Sodium Polyphosphate	A-Excellent	A-Excellent
Sodium Silicate	A-Excellent	A <sup>2</sup> -Excellent

Sodium Sulfate	A-Excellent	A <sup>2</sup> -Excellent
Sodium Sulfide	A-Excellent	A <sup>2</sup> -Excellent
Sodium Sulfite	A <sup>2</sup> -Excellent	B <sup>2</sup> -Good
Sodium Tetraborate	N/A	A <sup>2</sup> -Excellent
Sodium Thiosulfate (hypo)	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Sorghum	N/A	N/A
Soy Sauce	N/A	N/A
Stannic Chloride	A-Excellent	A <sup>2</sup> -Excellent
Stannic Fluoborate	N/A	N/A
Stannous Chloride	A-Excellent	B <sup>2</sup> -Good
Starch	A <sup>2</sup> -Excellent	B-Good
Stearic Acid	A <sup>2</sup> -Excellent	B <sup>1</sup> -Good
Stoddard Solvent	C-Fair	C <sup>2</sup> -Fair
Styrene	N/A	N/A
Sugar (Liquids)	A-Excellent	N/A
Sulfate (Liquors)	A-Excellent	A <sup>2</sup> -Excellent
Sulfur Chloride	C <sup>1</sup> -Fair	C <sup>1</sup> -Fair
Sulfur Dioxide	A <sup>1</sup> -Excellent	B <sup>1</sup> -Good
Sulfur Dioxide (dry)	A <sup>1</sup> -Excellent	A <sup>1</sup> -Excellent
Sulfur Hexafluoride	N/A	B-Good
Sulfur Trioxide	C-Fair	N/A
Sulfur Trioxide (dry)	D-Severe Effect	C <sup>1</sup> -Fair
Sulfuric Acid (<10%)	A <sup>2</sup> -Excellent	A <sup>1</sup> -Excellent
Sulfuric Acid (10-75%)	A <sup>1</sup> -Excellent	A <sup>1</sup> -Excellent
Sulfuric Acid (75-100%)	C <sup>1</sup> -Fair	B <sup>1</sup> -Good
Sulfuric Acid (cold concentrated)	A <sup>2</sup> -Excellent	C-Fair
Sulfuric Acid (hot concentrated)	D-Severe Effect	D-Severe Effect
Sulfurous Acid	A-Excellent	B <sup>2</sup> -Good
Sulfuryl Chloride	N/A	N/A
Tallow	A <sup>2</sup> -Excellent	C-Fair
Tannic Acid	A-Excellent	B <sup>2</sup> -Good
Tanning Liquors	A <sup>1</sup> -Excellent	A <sup>1</sup> -Excellent
Tartaric Acid	A-Excellent	A <sup>1</sup> -Excellent
Tetrachloroethane	C-Fair	N/A
Tetrachloroethylene	D-Severe Effect	B-Good
Tetrahydrofuran	C <sup>2</sup> -Fair	C <sup>1</sup> -Fair
Tin Salts	A-Excellent	N/A
Toluene (Toluol)	D-Severe Effect	D-Severe Effect
Tomato Juice	A-Excellent	A <sup>1</sup> -Excellent
Trichloroacetic Acid	A-Excellent	A-Excellent
Trichloroethane	C-Fair	N/A
Trichloroethylene	C <sup>1</sup> -Fair	D-Severe Effect
Trichloropropane	N/A	N/A
Tricresylphosphate	A <sup>1</sup> -Excellent	B <sup>1</sup> -Good
Triethylamine	D-Severe Effect	N/A
Trisodium Phosphate	A-Excellent	A-Excellent
Turpentine	D-Severe Effect	D-Severe Effect
Urea	A-Excellent	A-Excellent
Uric Acid	N/A	B-Good
Urine	A-Excellent	A <sup>2</sup> -Excellent
Varnish	A-Excellent	A-Excellent
Vegetable Juice	N/A	N/A
Vinegar	A-Excellent	A-Excellent
Vinyl Acetate	B <sup>1</sup> -Good	A-Excellent
Vinyl Chloride	N/A	N/A
Water, Acid, Mine	A-Excellent	A <sup>2</sup> -Excellent
Water, Deionized	A <sup>2</sup> -Excellent	N/A
Water, Distilled	A-Excellent	A <sup>2</sup> -Excellent
Water, Fresh	A-Excellent	A <sup>2</sup> -Excellent
Water, Salt	A-Excellent	A <sup>2</sup> -Excellent
Weed Killers	N/A	N/A
Whey	N/A	N/A
Whiskey & Wines	A-Excellent	C-Fair
White Liquor (Pulp Mill)	A <sup>1</sup> -Excellent	A <sup>2</sup> -Excellent
White Water (Paper Mill)	A-Excellent	N/A
Xylene	D-Severe Effect	D-Severe Effect
Zinc Chloride	A-Excellent	A <sup>1</sup> -Excellent
Zinc Hydrosulfite	N/A	N/A
Zinc Sulfate	A-Excellent	A <sup>2</sup> -Excellent

**Ezi-action® Drumpumps are fully servicable.**  
**If servicing is required ask for LDPE Seal Pack or LDPE Service Kit.**  
[www.nzpump.com/fully\\_serviceable\\_drum\\_pumps](http://www.nzpump.com/fully_serviceable_drum_pumps)