Chemical Compatibility Resistance Chart for CTC Cables

DISCLAIMER

This document is intended to be used as a guide for chemical compatibility to aid in appropriate equipment selection. This information has been supplied to CTC by multiple sources, and is not an exhaustive list. Please consult your chemical supplier and test equipment with your specific chemicals and conditions of application before permanent installation. Please note, ratings of chemical behavior listed in this chart apply to a 48-hr exposure period. CTC does not guarantee, warrant, or imply that the information in this chart is accurate or complete or that any material is suitable for any purpose. Variations in temperature, pressure, and concentration may result in variations in chemical behavior resulting in equipment failure despite initial testing. It is important to use appropriate guards and personal safety measures when handling chemicals.

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Acetaldehyde	A	D	D	A
Acetamide	A	D	D	B
Acetate Solvent	A	D	D	A
Acetic Acid	A	D	D	D
Acetic acid 20%	A	D	D	B
Acetic Acid 80%	A	D	C	D
Acetic Anhydride	A	D	D	B
Acetone	A	D	D	A
Acetyl Bromide	A	D	D	E
Acetyl Chloride	A	D	C	A
Acetylene	A	B	A[1]	A
Acid Fluoroborate Bath R.T	A	E	A	E
Acrylonitrile	A	D	B[1]	A[1]
Adipic Acid	A	A	A[2]	A[1]
Alcohols: Amyl	A	D	A[2]	A
Alcohols: Benzyl	A	D	D	B
Alcohols: Butyl	A	D	A[2]	A
Alcohols: Diacetone	A	D	B[1]	A
Alcohols: Ethyl	A	D	C	A

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Alcohols: Hexyl	A	D	A[2]	A
Alcohols: Isobutyl	A[2]	D	A[1]	A
Alcohols: Isopropyl	A[2]	D	A[1]	B
Alcohols: Methyl	A	D	A[1]	A
Alcohols: Octyl	E	D	E	A
Alcohols: Propyl	A	D	A[1]	A
Alkaline Cyanide Bath R.T	A	E	A	E
Alum Potassium Sulfate (10%)	A	A	A	E
Aluminum Chloride	A	B	A[2]	B
Aluminum Chloride 20%	A	A	A[1]	D
Aluminum Fluoride	A	C	A[2]	D
Aluminum Hydroxide	A	B	A[2]	A[1]
Aluminum Nitrate	A	C	B[2]	A
Aluminum Potassium Sulfate 10%	A	E	A[2]	A

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Aluminum Potassium Sulfate 100%	A	E	A[2]	D
Aluminum Sulfate	A	B	A[2]	B
Alums	A	B	E	E
Amines	A[2]	E	D	A
Ammonia 10%	A	D	B[1]	A
Ammonia, Anhydrous	A	D	A[2]	A
Ammonia, Liquids	A	D	A[1]	B[2]
Ammonium Acetate	A	D	A	B
Ammonium Bifluoride	A	E	A[2]	D
Ammonium Carbonate	A	A	A[2]	B
Ammonium Caseinate	E	E	E	E
Ammonium Chloride	A	B	A[2]	C
Ammonium Hydroxide	A	D	A	A[1]
Ammonium Nitrate	A	E	B	A
Ammonium Nitrate	A	D	A[2]	A[1]
Ammonium Oxalate	E	E	A	A
Ammonium Persulfate	A[1]	D	A[2]	A
Ammonium Phosphate Dibasic	A[2]	E	A[2]	B

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Ammonium Phosphate Tribasic	A	E	A	B
Ammonium Sulfate	A	A	A[2]	B
Ammonium Sulfite	A[2]	E	A[2]	B
Ammonium Thiosulfate	E	E	E	E
Amonium Phosphate Monobasic	A	B	A	B
Amyl Acetate	A	D	D	A[1]
Amyl Alcohol	A	D	A[2]	A
Amyl Chloride	A	C	D	A[2]
Amyl-Acetate	A	D	D	A
Aniline	A	D	C[1]	A
Aniline Hydrochloride	A	D	B[2]	D
Antifreeze	E	E	A	E
Antimony Plating 130 °F	A	B	A	A
Antimony Trichloride	A	D	A[2]	D
Aqua Regia (80% HCl, 20% HNO_3)	A	B	C[1]	D
Arochlor 1248	A	D	E	B
Aromatic Hydrocarbons	E	C	D	E
Arsenic Acid	A	E	A[1]	A[2]
Arsenic Plating 110 °F	A	B	A	A

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Arsenic Salts	E	B	A	E
Asphalt	A[1]	B	A[2]	B
Barium Carbonate	A	A	A[2]	B[1]
Barium Chloride	A	E	A[1]	A[1]
Barium Cyanide	A[1]	D	D	A[1]
Barium Hydroxide	A	B	A[2]	B[1]
Barium Nitrate	A[1]	A	A	B[1]
Barium Sulfate	A	A	B[1]	B[1]
Barium Sulfide	A	D	A[2]	B[1]
Beer	A	E	A[2]	A
Beet Sugar Liquids	A[1]	D	A[2]	A
Benzaldehyde	A[1]	D	D	B
Benzene	A	D	C[1]	B
Benzene Sulfonic Acid	A	D	A	B
Benzoic Acid	A[2]	D	A	B
Benzol	A	E	E	A[1]
Benzonitrile	A[2]	D	E	D
Benzyl Chloride	E	D	E	C[1]
Bleaching Liquors	A	B	A[1]	E
Borax (Sodium Borate)	A	A	A[1]	A
Boric Acid	A	E	A[2]	B[2]
Brass Plating Regular Brass Bath 100 °F	A	E	A	A
Brewery Slop	E	D	E	E
Bromine	A	E	C[1]	D

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Bronze Plating Copper-Cadmium Bronze Bath R.T.	A	B	A	A
Bunker Oil	A	D	E	A
Butadiene	A[2]	D	C[1]	A
Butane	A	D	C[1]	A[2]
Butanol (Butyl Alcohol)	A[2]	D	C[1]	A
Butter	A	A	E	C
Buttermilk	A	D	A[1]	A
Butyl Amine	A[2]	E	D	E
Butyl Ether	A[1]	D	A[2]	E
Butyl Phthalate	A[2]	D	E	B[1]
Butylacetate	A	C	D	B
Butylene	A	D	A[1]	A
Butyric acide	A[2]	E	B[1]	B[2]
Cadmium Plating Cyanide Bath 90 °F	A	E	A	E
Cadmium Plating Fluoroborate Bath 100 °F	A	A	A	A
Calcium Bisulfate	E	C	E	E
Calcium Bisulfide	A	A	A[2]	B
Calcium Bisulfite	A	D	B	B
Calcium Carbonate	A	B	A[2]	A[1]
Calcium Chlorate	A	A	B[2]	E
Calcium Chloride	A	D	C	C[2]
Calcium Hydroxide	A	D	B	B[1]

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Calcium Hypochlorite	A	D	B[1]	C[1]
Calcium Nitrate	A[2]	B	A[2]	C[1]
Calcium Oxide	A	B	B	A
Calcium Sulfate	A	D	B[2]	B
Calgon	E	A	E	A
Cane Juice	A	D	A[1]	A
Carbolic Acid	A	D	D	B
Carbon Bisulfide	E	A	D	A
Carbon Dioxide (dry)	A	D	A[2]	A
Carbon Dioxide (Wet)	A	D	A[1]	A
Carbon Disulfide	A	A	D	A[1]
Carbon Monoxide	A	D	A[2]	A
Carbon Tetrachloride	A	D	D	B
Carbon Tetrachloride (dry)	A	D	E	B
Carbon Tetrachloride (wet)	A	B	E	A[2]
Carbonated Water	E	A	A	A
Carbonic Acid	A	D	A[2]	A[1]
Catsup	E	D	A	A
Chloracetic Acid	A	E	B[1]	B[1]
Chloric Acid	A	E	A[2]	D
Chlorinated Glue	E	D	E	E
Chlorine (Dry)	A	E	D	A[1]
Chlorine Water	A	E	A[2]	C

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Chlorine, Anhydrous Liquid	A	D	D	C[1]
Chlorobenzene (Mono)	B	D	D	A
Chlorobromo-methane	A	D	D	E
Chloroform	A[1]	D	D	A
Chlorosulfonic Acid	A	E	D	D
Chocolate Syrup	A	E	E	A
Chrome Plating Fluoride Bath 130 °F	A	E	A	E
Chrome Plating Flusilicate Bath 95 °F	A	D	A	E
Chromic Acid 10%	A	D	A2	B
Chromic Acid 30%	A	D	A[1]	B[2]
Chromic Acid 5%	A	D	A[2]	B
Chromic Acid 50%	A	E	D	C
Chromium Plating Barrel Chrome Bath 95 °F	A	E	A	E
Chromium Plating Chromic-Sulfuric Bath 130 °F	A	E	A	E
Chromium Potassium Sulfate	E	B	E	E
Chromium Salts	E	D	A	E
Cider	E	A	A	A
Citric Acid	A	E	B[2]	B[1]

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Citric Oils	E	D	E	A
Cloroxr (Bleach)	A	D	A	A
Coffee	E	D	E	A
Copper (Electroless) 140 °F	A	D	A	E
Copper (Misc) Copper Pyrophosphate 140 °F	A	B	A	E
Copper Chloride	A	A	A[1]	D
Copper Cyanide	A	E	A[2]	B
Copper Fluoborate	E	D	A	D
Copper Fluoborate Bath 120 °F	A	B	A	A
Copper Nitrate	A	D	A[2]	A
Copper Plating High Speed Bath 180 °F	A	D	D	E
Copper Plating-(Acid) Copper Sulfate Bath R.T.	A	D	A	E
Copper Plating-Copper Strike Bath 120 °F	A	E	A	E
Copper Sulfate	A	E	A[2]	B
Copper Sulfate (5% Solution)	A	E	A[2]	B
Copper-Tin Bronze Bath 160 °F	A	E	D	A

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Copper-Zince Bronze Bath 100 °F	A	E	A	A
Cream	A	D	E	A
Cresol	E	B	D	A[2]
Cresote	A	D	E	A
Cresylic Acid	A	E	D	A[1]
Cupric Acid	A	D	A[2]	D
Cyanic Acid	A	B	E	A
Cyclohexane	A	D	D	A[1]
Detergents	A	D	A	A[1]
Diacetone Alcohol	A	B	D	B[1]
Dibutyl Ether	A	C	E	A
Dibutyl Phthalate	A	D	E	A
Dichlorobenzene	A	D	D	E
Dichloroethane	A[1]	C	D	B
Diesel Fuel (2D, 3D, 4D, 5D)	A	E	A[1]	A[1]
Diester Oil	A	D	E	A
Dietheylene Glycol	A[2]	A	C[1]	A[1]
Diethyl Ether	A	C	D	B[1]
Diethylamine	D	D	D	A
Dimethyl Aniline	A	D	D	B[2]
Dimethyl Formamide	A	D	D	A
Diphenyl	A	D	E	B
Diphenyl Oxide	A[1]	D	D	B[1]
Dyes	E	D	B	A

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Epsom Salts (Magnesium Sulfate)	A	C	A[1]	A
Ethane	A	D	A[1]	A
Ethanol	A	C	C	A
Ethanolamine	A[1]	D	D	A
Ether	A	D	D	A
Etheylene Chloride	A	D	D	B
Ethyl Acetate	A	D	D	B
Ethyl Benzoate	A	E	D	E
Ethyl Bromide	E	C	D	A
Ethyl Chloride	A	D	D	A
Ethyl Ether	A	D	D	B
Ethyl Sulfate	A	E	E	D
Ethyl Sulfate	A	D	E	E
Ethylene Bromide	A	D	D	A
Ethylene Chlorohydrin	A	D	D	B
Ethylene Diamine	A	D	D	B[1]
Ethylene Dichloride	A	B	D	B
Ethylene Glycol	A	D	A	B
Ethylene Oxide	A	B	D	B
Fatty Acids	A	A	A	B
Ferric Chloride	A	A	A	D
Ferric Nitrate	A	B	A	B
Ferric Sulfate	A	E	A	B[1]

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Ferrous Am, Sulfate Bath 150 °F	A	B	D	E
Ferrous Chloride	A	A	A	D
Ferrous Sulfate	A	D	A	B
Fluorine	D	D	D	C
Fluoroboric Acid	A	D	A	B
Flusilicic Acid	A	D	D	C
Formeldehyde	A	C	A	C
Formeldehyde 40%	A	D	A	A[1]
Formic Acid	A	B	A[1]	B[1]
Freon 113	A	A	B	E
Freon 12	A	D	A[2]	B[1]
Freon 22	A	B	A	A
Freon TF	A	D	B	A
Freonr 11	A	A	A[2]	A
Fruit Juice	A	D	A	A
Fuel Oils	B	D	A[2]	A
Furfural	A	D	D	A
Furon Resin	A	D	A	A[1]
Gallic Acid	B	E	B	A
Gasoline (high-aromatic)	B	C	A	A
Gasoline, leaded, ref.	A	E	B	A[1]
Gasoline, unleaded	A	D	C[2]	A[1]
Gelatin	A	D	B	A[2]
Glucose	A	A	A[2]	A[1]

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Glue, P.V.A.	A	D	C	A[1]
Glycerin	A	D	A	A[2]
Glycolic Acid	A	E	B	A
Gold Monocyanide	D	E	E	A
Gold Plating Acid 75 °F	A	E	A	E
Gold Plating Cyanide 150 °F	A	D	D	E
Grape Juice	A	A	A	A
Grease	A	E	A	E
Heptane	A	B	C[1]	A
Hexane	A	E	B[1]	A
High Speed Brass Bath 110 °F	A	E	A	E
Honey	A	E	A	A
Hydraulic Oils (Petroleum)	A	E	A	A
Hydraulic Oils (Synthetic)	A	D	A	A
Hydrazene	A	D	E	A
Hydrobromic Acid	A	B	A[1]	D
Hydrobromic Acid (20%)	A	D	A[2]	D
Hydrobromic Acid (37%)	A	E	B	D
Hydrobromic Acid 20%	E	E	B[2]	D
Hydrochloric Acid	A	D	A	D
Hydrochloric Acid 100%	A	E	D	D

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Hydrochloric Acid, Dry Gas	A	D	A[2]	D
Hydrocyanic Acid	A	E	B	B[1]
Hydrocyanic Acid (Gas 10%)	A	D	A	E
Hydrofluoric Acid	A	D	C	B[1]
Hydrofluoric Acid (20%)	A	D	B	D
Hydrofluoric Acid (75%)	A	D	C	D
Hydrofluoric Acid 50%	A	D	B[1]	D
Hydrofluosilicic Acid	A	D	B[1]	D
Hydrofluosilicic Acid (20%)	A	A	A[2]	C[2]
Hydrogen	A	D	A[2]	A
Hydrogen Peroxide	A	B	A	B[2]
Hydrogen Peroxide 10%	A	B	A[1]	B[2]
Hydrogen Peroxide 30%	A	D	A[1]	B[2]
Hydrogen Peroxide 50%	A	E	A[1]	B[2]
Hydrogen Sulfide	A	D	A	E
Hydrogen Sulfide Aqueous Solution	A	A	B[1]	C
Hydrogen Sulfide Dry	A	E	A[2]	C[1]
Hydroquinone	A	D	B	B

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Hydroxyacetic Acid 70%	A	E	D	E
Indium Sulfamate Plating R.T.	A	A	A	E
Ink	A	D	C	C
Iodine	A	E	A	D
Iodine Solution	E	E	A	E
Iodoform	C	E	A	A
Iron Plating Ferrous Chloride Bath 190 °F	A	E	D	E
Iron Plating Ferrous Sulfate Bath 150 °F	A	E	D	E
Iron Plating Fluorobrate Bath 145 °F	A	B	D	E
Isooctane	A	D	A[1]	A[1]
Isopropyl Acetate	A	B	D	C
Isopropyl Ether	A[1]	E	B	A
Isotane	E	C	A	E
Jet Fuel (JP3, JP4, JP5)	A	B	C	A
Kerosene	A	D	A[2]	A
Ketones	A	D	D	A
Lacquer thinners	A	D	D	A[1]
Lacquers	A	B	D	A[1]
Lactic Acid	A	C	B[1]	B[1]
Lard	A	D	A[1]	A
Latex	A	D	E	A[2]

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Lead Acetate	A	E	B	B
Lead Fluoroborate Plating	A	D	A	E
Lead Nitrate	A[1]	E	A[2]	B[1]
Lead Sulfamate	B	C	B	C
Ligroin	A	B	E	E
Lime	A[1]	E	B	A
Linoleic Acid	A	D	A[2]	B
Lithium Chloride	A	D	D	A[1]
Lithium Hydroxide	A	B	E	B
Lubricants	A	D	B[2]	A[2]
Lye: $Ca(OH)_2$ Calcium Hydroxide	A	D	B[2]	B[1]
Lye: KOH Potassium Hydroxide	A	B	B	B
Lye: NaOH Sodium Hydroxide	A	E	A	B
Magnesium Bisulfate	A	B	A[2]	A[1]
Magnesium Carbonate	A[1]	A	B	B
Magnesium Chloride	A	D	B	D
Magnesium Hydroxide	A	B	A[2]	B
Magnesium Nitrate	A	E	A[2]	B
Magnesium Oxide	A	D	E	A
Magnesium Sulfate (Epsom Salts)	A	D	A[1]	A

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Maleic Acid	A	E	A[2]	A
Maleic Anhydride	A	E	E	A
Malic Acid	A	A	A[2]	A
Manganese Sulfate	A	A	C	B
Mash	E	D	E	A
Mayonnaise	A	D	D	C
Melamine	A	A	D	E
Mercuric Chloride (Dilute Solution)	A	E	A	D
Mercuric Cyanide	B	E	A	C
Mercurous Nitrate	A	A	A	A[1]
Mercury	A	C	A	A
Methane	A	D	B	A
Methanol	A	D	A[1]	A
Methyl Acetate	A	E	D	A
Methyl Acetone	A	D	D	A
Methyl Acrylate	E	D	E	A
Methyl Alcohol 10%	A	D	A[1]	A
Methyl Bromide	A	D	D	A
Methyl Butyl Ketone	E	D	A	A
Methyl Cellosolve	A	D	D	B
Methyl Chloride	A	E	D	A
Methyl Dichloride	E	D	A	E
Methyl Ethyl Ketone	A	D	D	A
Methyl Ethyl Ketone Peroxide	E	D	E	E

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Methyl Isobutyl Ketone	A	D	D	B
Methyl Isopropal Ketone	A	D	D	A
Methyl Methacrylate	E	E	A	B
Methylamine	A	D	D	A
Methylene Chloride	A	D	D	B
Milk	A	B	A[2]	A
Mineral Spirits	A	B	A	A
Molasses	A	D	A	A
Monochloroacetic acid	A[2]	D	E	A[1]
Mono-ethanolamine	A	E	D	A
Morpholine	A[2]	B	E	E
Motor oil	A	B	B	A[1]
Mustard	A	C	B	A
Naptha	B	B	A[1]	A
Napthalene	A	C	D	A
Natural Gas	A	D	A	A
Nickel Chloride	A	E	A	D
Nickel Nitrate	A[2]	E	A	B
Nickel Plating Fluoroborate 100-170 °F	A	E	A	E
Nickel Plating High Chloride 130-160 °F	A	E	D	E

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Nickel Plating Watts Type 115-160 °F	A	C	D	E
Nickel Sulfate	A	D	A	B
Nitrating Acid (<15% HNO_3)	A	D	D	C
Nitrating Acid (>15% $H2SO_4$)	A	D	D	C
Nitrating Acid (S1% Acid)	A	D	D	C
Nitrating Acid (S15% $H2SO_4$)	A	D	D	C
Nitric Acid	A	D	B[1]	A[1]
Nitric Acid (10% Solution)	A	D	A[1]	A
Nitric Acid (20% Solution)	A	D	A[1]	A
Nitric Acid (50% Solution)	A	D	B[1]	A[2]
Nitrobenzene	A	E	D	B
Nitrogen Fertilizer	A	D	E	E
Nitromethane	A	E	B[2]	A
Nitrous Acid	A	B	A	B
Nitrous Oxide	A	D	A	B
Oils: Aniline	A	E	D	A
Oils: Anise	E	E	E	E
Oils: Bay	E	E	E	E
Oils: Bone	A	A	E	E
Oils: Castor	A	E	A	A
Oils: Cinnamon	A	E	D	A

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Oils: Citric	A	E	B	A
Oils: Clove	A	C	E	A
Oils: Coconut	A	A	A[1]	A
Oils: Cod Liver	A	A	A[1]	A
Oils: Corn	A	A	B	A
Oils: Cottonseed	A	D	B[2]	A
Oils: Creosote	A	C	C	B
Oils: Diesel Fuel (20, 30, 40, 50)	A	D	B	A
Oils: Fuel (1, 2, 3, 5A, 5B, 6)	A	E	A[2]	A
Oils: Ginger	A	E	E	D
Oils: Hydraulic Oil (Petro)	A	E	A	A
Oils: Hydraulic Oil (Synthetic)	A	E	A	A
Oils: Lemon	A	B	E	A
Oils: Linseed	A	A	A[2]	A
Oils: Mineral	A	A	B	A
Oils: Olive	A[1]	E	C	A
Oils: Orange	E	A	C[1]	A
Oils: Palm	A	B	A	A
Oils: Peanut	A	E	A[1]	A
Oils: Peppermint	A	A	E	A
Oils: Pine	A	B	D	A
Oils: Rapeseed	A	E	E	A
Oils: Rosin	A	E	C[1]	A[1]
Oils: Sesame Seed	A	A	A	A
Oils: Silicone	A	B	A	A

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Oils: Soybean	A	E	A[1]	A
Oils: Sperm (whale)	A	E	E	A
Oils: Tanning	E	A	E	A
Oils: Transformer	A	D	B	A
Oils: Turbine	A	B	A[1]	A
Oleic Acid	A	D	C[2]	A
Oleum 100%	A	D	D	A
Oleum 25%	A	D	D	B[2]
Oxalic Acid (cold)	A[1]	A	B	B
Ozone	A	E	B	B
Paints	A	A	E	A
Palmitic Acid	A[2]	A	B[1]	B[1]
Paraffin	A	D	B	A
Pentane	A	D	A	C
Perchlorethylene	A	D	D	A
Perchloric Acid	A	D	C	C
Perchloroethylene	A	D	C[1]	B
Petrolatum	C	B	B	A
Petroleum	A[2]	D	E	A[1]
Phenol	A	E	D	B
Phenol (10%)	A	E	C[1]	B
Phosphoric Acid	A	D	A	B
Phosphoric Acid (>40%)	A	E	B	D
Phosphoric Acid (crude)	A	D	B2	D
Phosphoric Acid (molten)	E	D	D	E

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Phosphoric Acid (S40%)	A	E	B	D
Phosphoric Acid Anhydride	E	E	E	E
Phosphorus	A[2]	E	A[1]	A[2]
Phosphorus Trichloride	A[2]	D	D	A[1]
Photographic Developer	A	D	A	A
Photographic Solutions	A[2]	E	A	D
Phthalic Acid	A[2]	A	E	B[2]
Phthalic Anhydride	A	B	D	A
Picric Acid	A	E	D	B
Plating Solutions, Chromium Plating: Black Chrome Bath 115 °F	A	E	A	E
Plating Solutions, Gold Plating: Neutral 75 °F	A	E	A	E
Plating Solutions, Nickel Plating: Electroless 200 °F	A	D	D	E
Potassium Bicarbonate	A	D	A	B
Potassium Bromide	A	D	A	B
Potassium Carbonate	E	A	A	B
Potassium Chlorate	A	A	A	B[1]

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Potassium Chloride	A	B	A	B[1]
Potassium Chromate	A[1]	A	A	B[1]
Potassium Cyanide Solutions	A	B	A	B[1]
Potassium Dichromate	A	E	A	B
Potassium Ferricyanide	A[2]	B	A	B[1]
Potassium Ferrocyanide	A	D	A	B
Potassium Hydroxide (50%)	A	D	A	B
Potassium Hydroxide (Caustic Potash)	A	B	A[1]	B
Potassium Hypochlorite	A[2]	E	B[1]	C[1]
Potassium Iodide	A[2]	A	A[2]	A[1]
Potassium Nitrate	A	E	A	B
Potassium Oxalate	A[2]	B	E	B
Potassium Permanganate	A	D	A[1]	B[1]
Potassium Permangenate	A	A	A	B
Potassium Sulfate	A	A	A[2]	B[1]
Potassium Sulfide	A	C	A[2]	B
Propane (liquified)	A	D	A[1]	A
Propyl Alcohol	A	D	A	A
Propylene	A[2]	B	B[1]	B[1]

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Propylene Glycol	A	D	C[1]	B
Pyridine	A	D	D	A
Pyrogallic Acid	A	D	A	B[2]
Resorcinal	A[2]	E	C	E
Rhodium Plating 120 °F	A	D	A	E
Rochelle Salt Bath 150 °F	A	D	D	E
Rosins	A	C	C[1]	A[1]
Rosins	A	D	E	A
Rum	E	A	A	A
Rust Inhibitors	E	E	E	A
Salad Dressings	E	E	E	A
Salicylic Acid	A[2]	D	B[1]	B[2]
Salt Brine (NaCl saturated)	A[2]	D	A	B[1]
Sea Water	A	D	A[2]	C
Shellac (Bleached)	A	D	E	A
Shellac (Orange)	A	E	E	A
Silicic Acid	A	A	A	E
Silicone	A	E	A	A
Silver Bromide	A	A	E	D
Silver Nitrate	A	E	A[1]	B
Silver Nitrate Silver Plating 80-120 °F	A	A	A	E
Soap Solutions	A	B	A	A
Soda Ash	A	D	A	A
Sodium Acetate	A	E	B[1]	B
Sodium Aluminate	A	E	E	A

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Sodium Benzoate	A[2]	A	B[1]	E
Sodium Bicarbonate	A	A	A[2]	A
Sodium Bisulfate	A	A	A[2]	D
Sodium Bisulfite	A	B	A[2]	B[1]
Sodium Borate	A	E	A[2]	B[2]
Sodium Bromide	A[2]	B	B[2]	C
Sodium Carbonate	A	B	A[2]	A
Sodium Chlorate	A	A	A[1]	A
Sodium Chloride	A	E	A[2]	B
Sodium Chromate	A	B	E	B[1]
Sodium Cyanide	A	E	A[2]	A[1]
Sodium Dichromate	A	B	A	E
Sodium Ferrocyanide	A	B	A	B
Sodium Fluoride	A[1]	B	A[2]	D
Sodium Hydrosulfite	A	B	C	E
Sodium Hydroxide (20%)	A	B	A	B
Sodium Hydroxide (50%)	A	B	A	B
Sodium hydroxide (80%)	A[1]	D	A	C
Sodium Hypochlorite (100%)	A	D	B	D
Sodium Hypochlorite (up to 20%)	A	E	A	C

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Sodium Hyposulphate	A	B	E	A
Sodium Metaphosphate	A	B	A	A
Sodium Metasilicate	A	B	A	A
Sodium Nitrate	A	B	A[2]	B[1]
Sodium Perborate	A	D	A[2]	B
Sodium Peroxide	A	E	B[2]	A
Sodium Polysulphate (Mono, Di, Tribasic)	A	B	A[1]	B
Sodium Silicate	A	A	A[2]	A
Sodium Sulfate	A	A	A[2]	B
Sodium Sulfide	A	A	A[2]	B
Sodium Sulfite	A	B	A[2]	B
Sodium Tetraborate	A	E	A[2]	A[2]
Sodium Thiosulphate (Hypo)	A	E	A[2]	A[2]
Sorghum	E	E	E	A
Soy Sauce	E	B	E	A
Stannic Chloride	A	E	A[2]	D
Stannic Chloride	E	C	E	E
Stannous Chloride	A	A	A[1]	C[2]
Starch	A	A	A	A
Stearic Acid	A	B	B[2]	B
Stoddard Solvent	A	D	C[1]	A
Styrene	A	D	D	A

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Sugar (Liquids)	A	E	E	A
Sulfamate 100-140 °F	A	E	A	E
Sulfamate 140 °F	A	D	A	E
Sulfate (liquors)	A	E	B	B
Sulfate Chloride Bath 160 °F	A	C	D	E
Sulfur Chloride	A	D	C[1]	D
Sulfur Dioxide	A	C	A[1]	D
Sulfur Dioxide (dry)	A	B	A[2]	D
Sulfur Hexafluoride	E	D	B	E
Sulfur Trioxide	A	B	A	A
Sulfur Trioxide (Dry)	A	D	A[1]	D
Sulfuric Acid (10-75%)	A	D	A[1]	D
Sulfuric Acid (75-100%)	A	D	D	C
Sulfuric Acid (cold concentrated)	A	D	D	C
Sulfuric Acid (hot concentrated)	A	D	D	D
Sulfuric Acid (to 10%)	A	D	A[1]	D
Sulfurous Acid	A	E	A[2]	B[1]
Sulfuryl Chloride	A	A	E	E
Tallow	A	A	E	A
Tannic Acid	A	D	A[1]	B[1]
Tanning liquors	A	A	A[1]	A[2]

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Tartaric Acid	A	D	A[1]	C[2]
Tetrachlorethane	A	D	C	B
Tetrachloro-ethylene	A	D	D	E
Tetrahydrofuran	A	E	D	A
Tin Fluoroborate Plating 100 °F	A	B	A	E
Tin Salts	A	E	A	E
Tin-Lead Plating 100 °F	A	E	A	E
Toluene	A	D	E	A
Toluene, Toluol	A	A	D	A
Tomato Juice	A	A	A	A
Transformer Oil	A	E	A	A
Transmission Oil	A	D	E	A
Trichlorethane	A	D	C	B
Trichlorethylene	A	D	D	B
Trichloroacetic Acid	A	D	B	D
Trichloroethylene	A	A	D	A
Trichloropropane	A[1]	D	E	A
Trichloropropane	A	D	E	A
Tricresyl-phosphate	A	D	D	B
Triethanol Amine	D	D	B	A
Triethylamine	A	B	B	A
Trisodium Phosphate	A	D	A	B
Turpentine	A	B	D	A
Urea	A	D	D	B

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Chemical Compatibility Resistance Chart for CTC Cables

Chemical	FEP (Flourinated Ethylene Propylene)	Polyurethane	PVC	Stainless Steel
Uric Acid	A	E	A	B
Urine	A[1]	D	A	A
Varnish	A	D	D	A
Vegetable Juice	A	D	E	A
Vinegar	A	D	B	A
Vinyl Acetate	A[2]	E	D	B
Vinyl Chloride	A[2]	D	D	B[2]
Water, Acid, Mine	A	E	B	B
Water, Deionized	A[2]	A	A[2]	A[1]
Water, Distilled	A	A	A[2]	A
Water, Fresh	A	D	B	A
Water, Salt	A	E	B	B
Weed Killers	E	E	E	A
Whey	A	D	E	A
Whiskey & Wines	A	D	A[2]	A
White Liquor (Pulp Mill)	A	E	A[2]	A
White Water (Paper Mill)	E	D	A	A
Xylene	A	E	D	B
Zinc Acid Sulfate Bath 150° F	A	B	D	E
Zinc Chloride	A	E	B	B
Zinc Hydrosulfite	A	E	E	A
Zinc Plating Acid Chloride 140 °F	A	B	A	E
Zinc Sulfate	A	E	A[2]	B[1]

Ratings: A - Excellent B - Good C - Fair D - Severe Effect E - Information Not Available

Ratings - Chemical Effect

A - Excellent

B - Good: Minor Effect, slight corrosion, or discoloration.

C - Fair: Moderate Effect, not recommended for continuous use. Softening or loss of strength, and swelling may occur.

D - Severe Effect: Not recommended for any use.

E - Information not available.

[1] - Satisfactory to 72° F (22° C)

[2] - Satisfactory to 120° F (48° C)