+ -The tank will withstand
0 - Only a 10% solution
-- Will not withstand
△- No studies conducted

# The resistance of Polyethylene to chemicals

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Acetaldehyde | techn. grade | + | O | + | – |
| Acetaldehyde, aqueous | any | + | O | + | |
| Acetaldehyde + acetic acid | 90:10 | + | | + | |
| Acetamide | | + | + | + | |
| Acetic acid | 100% | + | O▽ | + | O▽ |
| Acetic acid, aqueous | 70% | + | + | + | + |
| Acetic anhydride | techn. grade | + | O▽ | + | |
| Acetoacetic acid | | + | | + | |
| Acetone | techn. grade | + | +* | O | |
| Acetophenone | | + | | O | |
| Acetylene | | + | | | |
| Acids, aromatic | | + | + | + | |
| Acronal® dispersions | as supplied commerc. | + | O | + | |
| Acrylonitrile | techn. grade | + | + | + | O |
| Adipic acid, aqueous | saturated | + | + | + | + |
| Adipic ester | | + | O | | |
| Air | techn. grade | + | + | + | + |
| Aktivin® (chloramine, aqueous 1%) | | + | + | + | + |
| Allyl acetate | | + | + to O | + | O |
| Allyl alcohol (2-propenol-1) | 96% | + | + | O | O |
| Allyl chloride | | O | – | – | – |
| Aluminium chloride, aqueous | any | + | + | + | + |
| Aluminium chloride, solid | | + | + | + | + |
| Aluminium fluoride | conc. | + | + | + | + |
| Aluminium hyroxide | | + | + | + | + |
| Aluminium metaphosphate | | + | + | + | + |
| Aluminium sulphate, aqueous | saturated | + | + | + | + |
| Aluminium sulphate, solid | | + | + | + | + |
| Alum, aqueous | any | + | + | + | + |
| Amino acids | | + | + | + | + |
| 2-aminoethanol (ethanolamine) | techn. grade | + | | + | |
| Ammonia, gaseous | | + | + | + | |
| Ammonia, liquid | | + | | + | |
| Ammonia water | any | + | + | + | |
| Ammonium acetate, aqueous | any | + | + | + | + |
| Ammonium bicarbonate, aqueous | saturated | + | + | + | + |
| Ammonium carbonate, aqueous | any | + | + | + | + |
| Ammonium chloride, aqueous | any | + | + | + | + |
| Ammonium fluoride, aqueous | saturated | + | + | + | + |
| Ammonium hydrosulphide, aqueous | any | + | + | + | + |
| Ammonium metaphosphate | | + | + | + | + |
| Ammonium nitrate, aqueous | any | + | + | + | + |
| Ammonium phosphate, aqueous | any | + | + | + | + |
| Ammonium sulphate, aqueous | any | + | + | + | + |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Ammonium sulphide, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Ammonium thiocyanate | | ✚ | ✚ | ✚ | ✚ |
| Amyl acetate | techn. grade | ✚ | ✚ | ✚ | ○ |
| Amyl alcohol (C5 alcohols) | techn. grade | ✚ | ✚ | ✚ | ○ |
| Amyl chloride | 100% | ○ | ▬ | ▬ | ▬ |
| Amyl phthalate | | ✚ | ○ | ○ | ○ |
| Aniline | any | ✚ | ✚ | ✚ | ○ |
| Aniline hydrochloride, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Animal oils | | ✚ | ○ | ✚ | ○ |
| Aniseed | | ○ | ○ to ▬ | ▬ | ▬ |
| Aniseed oil | | ○ | ▬ | ▬ | ▬ |
| Anisole | | ✚ | ▬ | ○ | ▬ |
| Anone (cyclohexanone) | | ✚ | ○ | ○ | ▬ |
| Anthraquinone sulphonic acid, aqueous (susp.) | | ✚ | ✚ | ✚ | ✚ |
| Antifreeze (automotive) | as supplied commerc. | ✚ | ✚ | ✚ | ✚ |
| Antimony chloride, anhydrous | | ✚ | ✚ | ✚ | ✚ |
| Antimony pentachloride | | ✚ | ✚ | ✚ | ✚ |
| Antimony trichloride | | ✚ | ✚ | ✚ | ✚ |
| Aqua regia (HCl + HNO3) | | ▬ | | ▬ | |
| Aromatic oils | | ○ | ▬ | ○ | ▬ |
| Arsenic acid, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Arsenic anhydride | | ✚ | ✚ | ✚ | ✚ |
| Ascorbic acid | | ✚ | ✚ | ✚ | ✚ |
| Asphalt | | ✚ | ○▽ | ✚ | ○▽ |
| Aspirin® | | ✚ | | ✚ | |
| | | | | | |
| Barium hydroxide, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Barium salts, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Battery acid | | ✚ | ✚ | ✚ | ✚ |
| Beater glue (animal glue) | as supplied commerc. | ✚ | ✚ | | |
| Beef tallow | | ✚ | ✚ to ○ | ✚ | ○ |
| Beer | | ✚ | ✚ | ✚ | ✚ |
| Beer sugar colouring | as supplied commerc. | ✚ | ✚ | ✚ | ✚ |
| Beeswax | | ✚ | ○ to ▬ | ✚ | ▬ |
| Benzaldehyde, aqueous | any | ✚ | ✚ to ○ | ○ | ○ |
| Benzaldehyde in isopropyl alcohol | 1% | ✚ | ✚ | ✚ | ○ |
| Benzene | techn. grade | ○ | ▬ | ○ | ▬ |
| Benzene sulphonic acid | | ✚ | ✚ | ✚ | ✚ |
| Benzoic acid, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Benzoyl chloride | | ○ | ○ | ▬ | |
| Benzyl alcohol | | ✚ | ✚ | ✚ | ○ |
| Benzyl chloride | | ○ | ▬ | ▬ | |
| Bichromate – sulphuric acid | conc. | ▬ | | ▬ | |
| Bismuth salts | | ✚ | ✚ | ✚ | ✚ |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Bisulphite liquor | | ✓ | ✓ | | |
| Bitumen | | ✓ | ○▽ | ✓ | ○▽ |
| Bleaching solution with 12.5 % active chlorine** | | ○ | − | ○ | − |
| Bone oil | | ✓ | ✓ | ✓ | ✓ |
| Borax (sodium tetraborate), aqueous | saturated | ✓ | ✓ | ✓ | ✓ |
| Boric acid, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Boric acid methyl ester | | ✓ | ○ to − | ✓ | − |
| Boron trifluoride | | ✓ | ✓ to ○ | ✓ | ○ |
| Brake fluid | | ✓ | ✓ | ✓ | ○ |
| Brandy | | ✓ | ✓ | ✓ | ✓ |
| Bromic acid | conc. | − | | − | |
| Bromine, liquid | 100% | − | | − | |
| Bromine vapours | | − | | − | |
| Bromine water | cold saturated | ✓ | | ✓ | |
| Bromochloromethane | | − | | − | |
| 1,3-butadiene, gaseous | techn. grade | ○ | − | | |
| Butanediol, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Butanetriol, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Butane, gaseous | | ✓ | | | |
| Butanol, aqueous | any | ✓ | ✓ | ✓ | ○ |
| Butanone | | ✓ | ○ to − | ✓ | − |
| 2-Butenediol-1,4 | techn. grade | ✓ | | ✓ | |
| 2-Butinediol-1,4 | techn. grade | ✓ | | ✓ | |
| Butoxyl® (methoxybutylacetate) | | ✓ | ○ | | |
| Butter | | ✓ | | ✓ | |
| Butylene glycol | techn. grade | ✓ | ✓ | ✓ | ✓ |
| Butyl acetate (acetic acid butyl ester) | techn. grade | ✓ | ○ | ✓ | ○ |
| Butyl acrylate | | ✓ | ○ | ✓ | ○ |
| Butyl alcohol | | ✓ | ✓ | ✓ | ○ |
| Butyl benzyl phthalate | | ✓ | ✓ | ○ | ○ |
| Butyl glycol (ethylene glycol monobutylether) | techn. grade | ✓ | | ✓ | |
| Butyl phenol | techn. grade | ✓ | ✓ | ○ | |
| Butyl phenone | techn. grade | − | | − | |
| Butyl phthalate (dibutyl phthalate) | techn. grade | ✓ | ○ | ○ | ○ |
| Butyric acid, aqueous | any | ✓ | ○ | ✓ | ○ |
| | | | | | |
| Calcium carbide | | ✓ | ✓ | ✓ | ✓ |
| Calcium carbonate | | ✓ | ✓ | ✓ | ✓ |
| Calcium chlorate, aqueous | saturated | ✓ | ✓ | ✓ | ✓ |
| Calcium chloride, aqueous | saturated | ✓ | ✓ | ✓ | ✓ |
| Calcium hydroxide | | ✓ | ✓ | ✓ | ✓ |
| Calcium hypochlorite, aqueous (suspension) | any | ✓ | ✓ | ✓ | ✓ |
| Calcium nitrate, aqueous | 50% | ✓ | ✓ | ✓ | ✓ |
| Calcium oxide (powder) | | ✓ | ✓ | ✓ | ✓ |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Calcium phosphate | | ✚ | ✚ | ✚ | ✚ |
| Calcium sulphate | | ✚ | ✚ | ✚ | ✚ |
| Calcium sulphide, aqueous | ≤ 10% | ○ | ○ | | |
| Camphor | | ○ | ▬ | ○ | ▬ |
| Camphor oil | | ▬ | | ▬ | |
| Cane sugar, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Carbazole | | ✚ | ✚ | | |
| Carbolic acid (phenol) | | ✚ | ✚▽ | ○ | ○▽ |
| Carbolineum | as supplied commerc. | ✚ | | ○ | |
| Carbolineum, aqueous (for fruit trees) | | ✚▽ | ○▽ | ○▽ | ○▽ |
| Carbonic acid, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Carbonic acid, dry | 100% | ✚ | ✚ | | |
| Carbon dioxide | 100% | ✚ | ✚ | | |
| Carbon disulphide | | ○ | ▬ | ○ | ▬ |
| Carbon monoxide, gaseous | techn. grade | ✚ | ✚ | | |
| Carbon tetrachloride | | ○ | ▬ | ▬ | ▬ |
| Castor oil | | ✚ | ✚ | ✚ | ○ |
| Caustic soda solution | any | ✚ | ✚ | ✚ | ✚ |
| Cetyl alcohol (hexadecanol) | | ✚ | ✚ | ✚ | |
| Chloral hydrate, aqueous | any | ✚ | ✚▽ | ✚ | ✚▽ |
| Chloral (trichloroacetaldehyde) | techn. grade | ✚ | ✚ | | |
| Chloramine, aqueous | saturated | ✚ | | ✚ | |
| Chloric acid, aqueous | 1% | ✚ | ✚ | ✚ | ✚ |
| Chloric acid, aqueous | 10% | ✚ | ✚ | ✚ | ✚ |
| Chlorinated lime | | ✚ | ✚ | ✚ | ✚ |
| Chlorine, aqueous solution (chlorine water) | saturated | ✚ | ○ | ✚ | ○ |
| Chlorine, gaseous, dry | | ○ | ▬ | ○ | ▬ |
| Chlorine, gaseous, moist | | ○ | ▬ | ○ | ▬ |
| Chlorine, liquid | | ▬ | | ▬ | |
| Chlorine bleaching solution with 12.5% active chlorine | | ○ | ▬ | ○ | ▬ |
| Chloroacetic acid, aqueous | ≤ 85% | ✚ | ✚ | ✚ | ✚ |
| Chloroacetic acid (mono), aqueous | any | ✚ | ✚ | ✚ | ○ |
| Chlorobenzene | | ○ | ▬ | ○ | ▬ |
| Chloroformic acid ester | | ✚ | ○ | | |
| Chloroform | techn. grade | ○ to ▬ | ▬ | ▬ | ▬ |
| Chloropicrin | | ✚ to ○ | ▬ | | |
| Chlorosulphonic acid | techn. grade | ▬ | ▬ | ▬ | ▬ |
| Chrome alum (potassium chromic sulphate), aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Chrome anode slime | | ✚ | ✚ | ✚ | ✚ |
| Chrome salts, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Chromic acid, aqueous** | 50% | ○ | ▬▽ | ○ | ▬▽ |
| Chromium trioxide, aqueous** | 50% | ○ | ▬▽ | ○ | ▬▽ |
| Chromosulphuric acid | | ▬ | | ▬ | |
| Cider | | ✚ | ✚ | ✚ | ✚ |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Citric acid, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Citrus fruit juices | | ✚ | ✚ | ✚ | ✚ |
| Clophen® A 50 and A 60® | | ✚ | ○ to ▬ | | |
| Coal tar oil | | ✚▽ | ○▽ | ✚▽ | ○▽ |
| Coconut oil | | ✚ | ○ | ✚ | ○ |
| Coconut oil alcohol | techn. grade | ✚ | ○ | ✚ | ○ |
| Cod liver oil | | ✚ | ○ | ✚ | ○ |
| Coffee extract | | ✚ | ✚ | ✚ | ✚ |
| Cognac | | ✚ | | ✚ | |
| Cola concentrates | | ✚ | ✚ | ✚ | ✚ |
| Common salt, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Coolants and lubricants for metalworking | | ○ | ○ | | |
| Copper chloride, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Copper cyanide, aqueous | saturated | ✚ | | ✚ | |
| Copper fluoride, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Copper nitrate, aqueous | 30% | ✚ | ✚ | ✚ | ✚ |
| Copper salts, aqueous | cold saturated | ✚ | ✚ | ✚ | ✚ |
| Copper sulphate, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Corn oil | | ✚ | ○ | ✚ | ○ |
| Cottonseed oil | techn. grade | ✚ | ✚ | ✚ | ○ |
| Coumarone resins | | ✚ | ✚ | | |
| Creasote | | ✚ | ✚▽ | | |
| Cresol | 100% | ✚ | ○▽ | ○ | ▬ |
| Cresol, aqueous | dilute | ✚ | ✚▽ | ✚ | |
| Crop protection agents, aqueous | as supplied commerc. | ✚ | ✚ | ✚ | ✚ |
| Crotonaldehyde | techn. grade | ✚ | ○ | ○ | |
| Crude oil | | ✚ | ○ | ✚ | ○ |
| Cyclanone (fatty alcohol sulphonate) | as supplied commerc. | ✚ | ✚ | ✚ | |
| Cyclohexane | | ✚ | ✚ | ✚ | ▬ |
| Cyclohexanol | | ✚ | ✚ | ✚ | ✚ |
| Cyclohexanone (anone) | | ✚ | ○ | ○ | ▬ |
| | | | | | |
| Decahydronaphthalene (Dekalin®) | techn. grade | ✚ | ○ | ○ | ▬ |
| Defoamers | | ✚ | ✚ to ○ | ✚ | ○ |
| Detergents | | ✚ | ✚ | ✚ | ✚ |
| Detergents, synthetic | end use concentration | ✚ | ✚ | ✚ | ✚ |
| Developer solutions (photographic) | | ✚▽ | ✚▽ | ✚▽ | ✚▽ |
| Dextrin (starch gum), aqueous | 18% | ✚ | ✚ | ✚ | ✚ |
| Dextrose, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| 1,2-Diaminoethane (ethylenediamine) | techn. grade | ✚ | ✚ | ✚ | ○ |
| 1,2-Dibromoethane | | ○ | ▬ | ▬ | ▬ |
| Dibutyl ether | | ✚ to ○ | ▬ | ○ | ▬ |
| Dibutyl phthalate (butyl phthalate) | techn. grade | ✚ | ○ | ○ | ○ |
| Dibutyl sebacate | | ✚ | ○ | ○ | ○ |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Dichloroacetic acid | techn. grade | ✚ | ○▽ | ✚ | ▬ |
| Dichloroacetic acid | 50% | ✚ | ✚ | ✚ | ✚ |
| Dichloroacetic acid methyl ester | | ✚ | ✚ | ○ | ▬ |
| Dichlorobenzene | | ○ | ▬ | ▬ | ▬ |
| Dichlorodiphenyltrichloroethane (DDT, powder) | | ✚ | ✚ | ✚ | ✚ |
| Dichloroethane | | ○ | ○ | ▬ | ▬ |
| 1,1-Dichloroethylene (vinylidene chloride) | techn. grade | ▬ | ▬ | ▬ | ▬ |
| Dichloromethane** | | ○ | ○* | ▬ | ▬* |
| Dichloropropane | | ○ | ▬ | ▬ | ▬ |
| Dichloropropene | | ○ | ▬ | ▬ | ▬ |
| Diesel fuel | | ✚ | ○ | ✚ | ▬ |
| Diethanolamine | techn. grade | ✚ | | ✚ | |
| Diethylene glyol | | ✚ | ✚ | ✚ | ✚ |
| 2-Diethylhexylphthalate (DOP) | | ✚ | ○ | ✚ | |
| Diethylketone | | ✚ | ○ | ○ | ▬ |
| Diethyl ether | | ✚ to ○ | ○* | ○ | |
| Diglycolic acid, aqueous | 30% | ✚ | ✚ | ✚ | ✚ |
| Diisobutylketone | techn. grade | ✚ | ○ to ▬ | ○ | ▬ |
| Diisoctyl phthalate | techn. grade | ✚ | ○ | ○ | |
| Diisopropyl ether | | ✚ to ○ | ▬ | ○ | ▬ |
| Dimethylamine | | ✚ | ○ | ○ | ▬ |
| Dimethyl formamide | techn. grade | ✚ | ✚ to ○ | ✚ | ○ |
| Dimethyl sulphoxide | | ✚ | ✚ | ✚ | |
| Dinonyl phthalate (DNP) | techn. grade | ✚ | ○ | ○ | |
| Dioctyl phthalate | | ✚ | ○ | ○ | |
| Dioxane | | ✚ | ✚ | ✚ | ○ |
| Diphenylamine | | ✚ | ○ | ✚ | ○ |
| Diphenyl oxide | | ✚ | ○ | ✚ | ○ |
| Disodium phosphate | | ✚ | ✚ | ✚ | ✚ |
| Disodium sulphate | | ✚ | ✚ | ✚ | ✚ |
| Dodecylbenzenesulphonic acid | | ✚ | ○ | ✚ | ○ |
| Drinking water, also chlorinated | | ✚ | ✚ | ✚ | ✚ |
| Dyes | | ✚▽ | ✚▽ | ✚▽ | ✚▽ |
| | | | | | |
| Eau de Javelle (potassium hypochlorite bleaching solution) | | ✚ to ○ | ▬ | ✚ to ○ | ▬ |
| Eau de Labarraque (sodium hypochlorite bleaching solution) | | ✚ to ○ | ▬ | ✚ to ○ | ▬ |
| Electrolytic baths for electroplating | | ✚ to ○ | ○ | ✚ to ○ | ○ |
| Emulsifiers | | ✚ | ✚ | ✚ | |
| Emulsions (photographic) | | ✚ | ✚ | ✚ | ✚ |
| Ephetin®, aqueous | 10% | ✚ | ✚ | ✚ | ✚ |
| Epichlorohydrin | | ✚ | ✚ | ✚ | ✚ |
| Essential oils | | ✚ | ✚ | ✚ | ○ |
| Esters, aliphatic | techn. grade | ✚ | ✚ to ○ | ✚ to ○ | ○ to ▬ |
| Ethane | | ✚ | ✚ | | |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Ethanolamine (2-aminoethanol) | techn. grade | ✣ | | ✣ | |
| Ethanol | 96% | ✣ | ✣ | ✣ | ✣ |
| Ethanol denatured with toluene | 96% (v/v) | ✣ | | ✣ | |
| Ethereal oils | | ○ | ▬ | ○ | ▬ |
| Ether | | ✣ to ○ | ○* | ○ | |
| Ethylenediamine tetraacetic acid | | ✣ | ✣ | ✣ | ✣ |
| Ethylene | | ✣ | ✣ | | |
| Ethylene chloride | | ○ | ▬ | ○ | ▬ |
| Ethylene chlorohydrin (chloroethanol) | techn. grade | ✣ | ✣▽ | ✣ | ✣▽ |
| Ethylene diamine (1,2-diaminoethane) | techn. grade | ✣ | ✣ | ✣ | ○ |
| Ethylene dibromide | | ○ | ▬ | ○ | ▬ |
| Ethylene dichloride (dichloroethane) | | ○ | ▬ | ○ | ▬ |
| Ethylene glycol | | ✣ | ✣ | ✣ | ✣ |
| Ethylene glycol monobutyl ether (butyl glycol) | techn. grade | ✣ | | ✣ | |
| Ethylene oxide, gaseous | | ✣ | ✣ | | |
| Ethyl acetate (acetic acid ethyl ester) | techn. grade | ✣ | ○ | ○ | ▬ |
| Ethyl alcohol | 96% | ✣ | ✣ | ✣ | ✣ |
| Ethyl alcohol + acetic acid (fermentation mixture) | as used in production | ✣ | ✣ | ✣ | ✣ |
| Ethyl benzene | techn. grade | ○ | | ○ | |
| Ethyl chloride (chloroethane) | techn. grade | ○* | | ○* | |
| Ethyl ether (diethyl ether) | techn. grade | ✣ to ○ | ○* | ○ | |
| 2-Ethyl hexanol | | ✣ | ○ | ✣ | ○ |
| Euron® B | | ○ | ○ | | |
| Euron® G | | ✣ | ✣ | | |
| | | | | | |
| Fatty acids (>C6) | | ✣ | ✣ to ○ | ✣ | ○ |
| Fatty acid amides | | ✣ | ○ | ✣ | ○ |
| Fatty alcohols | | ✣ | ○ | ✣ | ○ |
| Fatty oils | | ✣ | ○ | ✣ | ○ |
| Ferric alum (ferric ammonium sulphate), aqueous | saturated | ✣ | ✣ | ✣ | ✣ |
| Ferric chloride, aqueous | any | ✣ | ✣ | ✣ | ✣ |
| Ferric nitrate, aqueous | saturated | ✣ | ✣ | ✣ | ✣ |
| Ferric sulphate, aqueous | saturated | ✣ | ✣ | ✣ | ✣ |
| Ferrous chloride, aqueous | saturated | ✣ | ✣ | ✣ | ✣ |
| Ferrous sulphate, aqueous | saturated | ✣ | ✣ | ✣ | ✣ |
| Fertilizer salts, aqueous | any | ✣ | ✣ | ✣ | ✣ |
| Fixing salt, aqueous | any | ✣ | ✣ | ✣ | ✣ |
| Fixing salt, solid | | ✣ | ✣ | ✣ | ✣ |
| Fluorine, gaseous | | ▬ | | ▬ | |
| Fluoroboric acid, aqueous | | ✣ | ○ | ✣ | ○ |
| Fluorosilicic acid | any | ✣ | ✣ | ✣ | ✣ |
| Fluorosilicic acid, aqueous | any | ✣ | ✣ | ✣ | ✣ |
| Formaldehyde, aqueous | up to 40% | ✣ | ✣ | ✣ | ✣ |
| Formamide | | ✣ | ✣ | ✣ | ✣ |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Formic acid, aqueous | 10% | ✣ | ✣ | ✣ | ✣ |
| Formic acid, aqueous | 85% | ✣ | ✣ | ✣ | ✣ |
| Frigen® 12 (Freon® 12) | 100% | ○ | ▬ | ○ | ▬ |
| Fructose (fruit sugar), aqueous | any | ✣ | ✣ | ✣ | ✣ |
| Fruit juices, fermented | | ✣ | ✣ | ✣ | ✣ |
| Fruit juices, unfermented | any | ✣ | ✣ | ✣ | ✣ |
| Fruit pulp | | ✣ | ✣ | ✣ | ✣ |
| Fuel oil | | ✣ | ○ | ○ | ▬ |
| Fuming sulphuric acid ($H_2SO_4 + SO_3$) | any | ▬ | | ▬ | |
| Furfurol | | ✣ | ○ | ○ | ▬ |
| Furfuryl alcohol | | ✣ | ✣▽ | ✣ | ✣▽ |
| | | | | | |
| Gas, manufactured | as supplied commerc. | ✣ | | ✣ | |
| Gas, natural | techn. grade | ✣ | | ✣ | |
| Gas, liquor | | ✣ | ✣ | ✣ | ✣ |
| Gasoline, regular-grade (DIN 51635) | | ✣ | ○ | ○ | ▬ |
| Gelatin | | ✣ | ✣ | ✣ | ✣ |
| Genantin® | | ✣ | ✣ | | |
| Gin | | ✣ | | ✣ | |
| Glacial acetic acid (100% acetic acid) | techn. grade | ✣ | ○▽ | ✣ | ○▽ |
| Glauber's salt, aqueous | any | ✣ | ✣ | ✣ | ✣ |
| Glucose, aqueous | any | ✣ | ✣ | ✣ | ✣ |
| Glue | | ✣ | ✣ | ✣ | ✣ |
| Glycerin, aqueous | any | ✣ | ✣ | ✣ | ✣ |
| Glycerin chlorohydrin | | ✣ | ✣ | ✣ | ✣ |
| Glycerol | | ✣ | ✣ | ✣ | ✣ |
| Glycine | | ✣ | ✣ | ✣ | ✣ |
| Glycolic acid, aqueous | up to 70% | ✣ | ✣ | ✣ | ✣ |
| Glycolic acid butyl ester | | ✣ | ✣ | ✣ | |
| Glycol, aqueous | as supplied commerc. | ✣ | ✣ | ✣ | ✣ |
| Glysantin® | | ✣ | ✣ | ✣ | ✣ |
| Grisiron® 8302 | | ○ | ○ | | |
| Grisiron® 8702 | | ✣ | ✣ | | |
| | | | | | |
| Halothan® | | ○ | ○ to ▬ | | |
| Heptane | | ✣ | ○ | ✣ | ▬ |
| Hexafluorosilicic acid, aqueous | 40% | ✣ | ✣ | ✣ | ✣ |
| Hexane | | ✣ | ○ | ✣ | ▬ |
| Hexanetriol | | ✣ | ✣ | ✣ | ✣ |
| Honey | | ✣ | ✣ | ✣ | ✣ |
| Hydraulic fluid | | ✣ | ○ | ✣ | |
| Hydrazine hydrate | | ✣ | ✣ | ✣ | ✣ |
| Hydrobromic acid, aqueous | 50% | ✣ | ✣ | ✣ | ✣ |
| Hydrochloric acid, aqueous | any | ✣ | ✣ | ✣ | ✣ |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Hydrocyanic acid | | ✚ | ✚ | ✚ | ✚ |
| Hydrofluoric acid, aqueous | 40-85% | ✚ | ○ | ✚ | ○ |
| Hydrogen | | ✚ | ✚ | | |
| Hydrogen bromide, gaseous | techn. grade | ✚ | ✚ | ✚ | |
| Hydrogen chloride gas, dry and moist | | ✚ | ✚ | ✚ | |
| Hydrogen peroxide, aqueous | 10% | ○ | ▬ | ○ | ▬ |
| Hydrogen peroxide, aqueous | 30% | ○ | ▬ | ○ | ▬ |
| Hydrogen peroxide | 100% | ○ | ○ | ○ | ▬ |
| Hydrogen sulphide, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Hydrogen sulphide, gaseous | | ✚ | ✚ | ✚ | ✚ |
| Hydroquinone | | ✚▽ | ✚▽ | ✚▽ | ✚▽ |
| Hydrosulphite, aqueous | up to 10% | ✚ | ✚ | ✚ | ✚ |
| Hydroxylamine sulphate, aqueous | 12% | ✚ | ✚ | ✚ | ✚ |
| Hypochlorous acid | | ✚ to ○ | ○ | ○ | |
| | | | | | |
| Ink | | ✚ | ✚ | ✚ | ✚ |
| Iodine in potassium iodide solution | 3% iodine | ✚ | ✚ | ✚ | ✚ |
| Iodine tincture, DAB 6 | as supplied commerc. | ✚ | ○▽ | ✚ | ○▽ |
| Isoamyl alcohol | techn. grade | ✚ | ○ | ✚ | ○ |
| Isobutyl alcohol (isobutanol) | | ✚ | ✚ | ✚ | ○ |
| Isobutyric acid | techn. grade | ✚ | ○ | ✚ | ○ |
| Isooctane | | ✚ | ○ | ✚ | ▬ |
| Isopropanol (isopropyl alcohol) | techn. grade | ✚ | ✚ | ✚ | ✚ |
| Isopropyl acetate | 100% | ✚ | ○ | ✚ | ○ |
| Isopropyl ether | techn. grade | ✚ to ○ | ▬ | ○ | ▬ |
| | | | | | |
| Jam | | ✚ | ✚ | ✚ | ✚ |
| | | | | | |
| Kerosene | | ✚ | ○ | ○ | ▬ |
| Ketones | | ✚ to ○ | ○ to ▬ | ✚ to ○ | ○ to ▬ |
| | | | | | |
| Lactic acid, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Lactose (milk sugar) | | ✚ | ✚ | ✚ | ✚ |
| Lanolin (wool fat) | | ✚ | ✚ | ✚ | ✚ |
| Latex | | ✚ | ✚ | ✚ | ✚ |
| Lead acetate, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Lead tetraethyl | | ✚ | | ✚ | |
| Lime | | ✚ | ✚ | ✚ | ✚ |
| Lime water | | ✚ | ✚ | ✚ | ✚ |
| Linseed oil | techn. grade | ✚ | ✚ | ✚ | ○ |
| Liqueur | | ✚ | ✚ | | |
| Liquid manure | | ✚ | ✚ | | |
| Liquid soaps | | ✚ | ✚ | ✚ | ✚ |
| Lithium bromide | | ✚ | ✚ | ✚ | ✚ |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Lubricating oils | techn. grade | ✣ | ✣ to ○ | ✣ | ○ |
| Lysol® | | ✣ | ○ | | |
| | | | | | |
| Machine oil | | ✣ | ○ | ✣ | ○ |
| Magnesium carbonate | | ✣ | ✣ | ✣ | ✣ |
| Magnesium chloride, aqueous | any | ✣ | ✣ | ✣ | ✣ |
| Magnesium fluorosilicate | | ✣ | ✣ | ✣ | ✣ |
| Magnesium hydroxide | | ✣ | ✣ | ✣ | ✣ |
| Magnesium iodide | | ✣ | ✣ | ✣ | ✣ |
| Magnesium salts, aqueous | any | ✣ | ✣ | ✣ | ✣ |
| Magnesium sulphate, aqueous | any | ✣ | ✣ | ✣ | ✣ |
| Maleic acid, aqueous | up to 100% | ✣ | ✣ | ✣ | ✣ |
| Malic acid, aqueous | 50% | ✣ | ✣ | ✣ | ✣ |
| Manganese sulphate | | ✣ | ✣ | ✣ | ✣ |
| Margarine | | ✣ | ✣ | ✣ | ✣ |
| Mash | | ✣ | ✣ | ✣ | ✣ |
| Mayonnaise | | ✣ | | ✣ | |
| Menthol | | ✣ | ○ | ○ | ▬ |
| Mercury | | ✣ | ✣ | ✣ | ✣ |
| Mercury chloride | | ✣ | ✣ | ✣ | ✣ |
| Mercury salts | | ✣ | ✣ | ✣ | ✣ |
| Metal soaps | | ✣ | ✣ | ✣ | ✣ |
| Methacrylic acid | | ✣ | ✣ | ✣ | ○ |
| Methanol | techn. grade | ✣ | ✣ | ✣ | ✣ |
| Methoxybutanol | | ✣ | ○ | ✣ | ○ |
| Methoxybutyl acetate (Butoxyl®) | | ✣ | ✣ | ✣ | ○ |
| Methylamine, aqueous | 32% | ✣ | | ✣ | |
| 2-Methylbutanol-2 | techn. grade | ✣ | ○ | ✣ | ○ |
| Methylene chloride** (dichloromethane) | | ○ | ○* | ▬ | ▬* |
| Methylisobutyl ketone | | ✣ | ○ to ▬ | ✣ | ▬ |
| Methyl acetate (acetic acid methyl ester) | techn. grade | ✣ | | ✣ | |
| Methyl acrylate | | ✣ | ✣ | ✣ | ○ |
| Methyl alcohol | | ✣ | ✣ | ✣ | ✣ |
| Methyl benzene | | ○ | ▬ | ○ | ▬ |
| Methyl benzoic acids (toluic acids) | saturated | ○ | | ○ | |
| Methyl bromide, gaseous | techn. grade | ▬ | | ▬ | |
| Methyl bromide (bromomethane), gaseous | techn. grade | ▬ | | ▬ | |
| Methyl chloride (chloromethane), gaseous | techn. grade | ○ | | ▬ | |
| Methyl cyclohexane | | ○ | ○ to ▬ | ○ | ▬ |
| Methyl ethyl ketone | techn. grade | ✣ | ○ | ○ | ▬ |
| Methyl glycol | | ✣ | ✣ | ✣ | ✣ |
| Methyl methacrylate | | ✣ | ✣ | ✣ | ○ |
| 4-Methyl pentanol-2 | | ✣ | ✣ to ○▽ | ✣ | ○▽ |
| Methyl propyl ketone | | ✣ | ○ | ○ | ▬ |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| N-Methyl pyrrolidone | | ✚ | ✚ | ✚ | |
| Methyl salicylate (salicylic acid methyl ester) | | ✚ | ○ | ✚ | ○ |
| Methyl sulphuric acid | 50% | ✚ | ✚ | ✚ | ✚ |
| Milk | | ✚ | ✚ | ✚ | ✚ |
| Mineral oil | without additives | ✚ | ✚ to ○ | ✚ | ○ |
| Mineral water | | ✚ | ✚ | ✚ | ✚ |
| Molasses | | ✚ | ✚ | ✚ | ✚ |
| Molasses wort | | ✚ | ✚ | ✚ | ✚ |
| Monochloroacetic acid | | ✚ | ○ | ✚ | ○ |
| Monochloroacetic acid ethyl ester | | ✚ | ✚ | ✚ | ○ |
| Monochloroacetic acid methyl ester | | ✚ | ✚ | ✚ | ○ |
| Monochlorobenzene | | ○ | – | ○ | – |
| Mordants, metallic | | ✚ | | ✚ | |
| Morpholine | | ✚ | ✚ | ✚ | |
| Motor oil (heavy duty oil) | | ✚ | ✚ to ○ | ✚ | ○ |
| Mowilith® emulsions | | ✚ | ✚ | ✚ | ✚ |
| Mustard | | ✚ | ✚ | ✚ | ✚ |
| | | | | | |
| Nail polish remover | | ✚ | ○ | ✚ | ○ |
| Naphthalene | | ✚ | – | ✚ | – |
| Naphtha | techn. grade | ✚ | ○ | ✚ | ○ |
| Naphtha | | ✚ | ○ | ✚ | ○ |
| Naphtha/benzene mixture | 80/20 | ✚ | ○ | ✚ | ○ |
| Nickel chloride | | ✚ | ✚ | ✚ | ✚ |
| Nickel nitrate | | ✚ | ✚ | ✚ | ✚ |
| Nickel salts, aqueous | | ✚ | ✚ | ✚ | ✚ |
| Nickel sulphate, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Nicotine | | ✚ | ✚ | ✚ | ✚ |
| Nicotinic acid | ≤ 10% | ✚ | | ✚ | |
| Nitric acid** | 25% | ✚ | ✚ | ✚ | ✚ |
| Nitric acid** | 50% | ○ | – | ○ | – |
| Nitric acid | 95% | – | – | – | – |
| 2,2',2"-Nitrilotriethanol (triethanolamine), aqueous | any | ✚ | ○ | ✚ | ○ |
| Nitrobenzene | | ✚ | ○ | ○ | – |
| Nitrocellulose | | ✚ | | ✚ | |
| o-Nitrotoluene | | ✚ | ○ | ○ | – |
| Nonyl alcohol (nonanol) | | ✚ | ✚ | ✚ | ○ |
| Nut oil | | ✚ | | ✚ | |
| | | | | | |
| Octyl cresol | techn. grade | ○ | – | ○ | – |
| Oils, ethereal | | ○ | – | ○ | – |
| Oils, vegetable and animal | | ✚ | ✚ to ○ | ✚ | ○ |
| Oleic acid | | ✚ | ○ | ✚ | ○ |
| Oleum | | – | – | – | – |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Olive oil | | ✚ | ✚ | ✚ | ○ |
| Optical brighteners | | ✚ | ✚ | ✚ | ✚ |
| Orange juice | | ✚ | ✚ | ✚ | ✚ |
| Oxalic acid, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Oxygen | | ✚ | ✚ | ✚ | ✚ |
| Ozone | 50 ppm | ○ | ▬ | ○ | ▬ |
| | | | | | |
| Palmitic acid | | ✚ | ✚ | ✚ | ✚ |
| Palmityl alcohol | | ✚ | ✚ | ✚ | ✚ |
| Palm nut oil | | ✚ | | ✚ | |
| Paraffin, liquid | | ✚ | ✚ | ✚ | ○ |
| Paraffin wax emulsions | as supplied commerc. | ✚ | ○ | ✚ | ○ |
| Paraformaldehyde | | ✚ | ✚ | ✚ | ✚ |
| Peanut oil | techn. grade | ✚ | | ✚ | |
| Pentanol | | ✚ | | ✚ | |
| Peppermint oil | | ✚ | | ✚ | |
| Perchloric acid, aqueous | 20% | ✚ | ✚ | ✚ | ✚ |
| Perchloric acid, aqueous | 50% | ✚ | ○ | ✚ | ○ |
| Perchloric acid, aqueous | 70% | ✚ | ▬ | ✚ | ▬ |
| Perchloroethylene | | ○ | ▬ | ▬ | ▬ |
| Petrol, regular-grade (DIN 51 635) | | ✚ | ○ | ○ | ▬ |
| Petroleum | | ✚ | ○ | ○ | ▬ |
| Petroleum ether | | ✚ | ○ | ✚ | |
| Phenolic resin moulding compounds | | ✚ | ✚ | ✚ | ✚ |
| Phenol | | ✚ | ✚▽ | ○ | ○▽ |
| Phenyl ethyl alcohol | | ✚ | ✚ | ✚ | ○ |
| Phenyl hydrazine | techn. grade | ○ | ○ to ▬ | ○ | ▬ |
| Phenyl hydrazine hydrochloride | | ✚ | ▬ | ✚ | ▬ |
| Phenyl sulphonate (sodium dodecyl benzene sulphonate) | | ✚ | ✚ | ✚ | ✚ |
| Phosgene, gaseous | | ○ | | | |
| Phosgene, liquid | 100% | ▬ | | | |
| Phosphates, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Phosphoric acid, aqueous | 50% | ✚ | ✚ | ✚ | ✚ |
| Phosphoric acid, aqueous | 80% ... 95% | ✚ | ○▽ | ✚ | ○▽ |
| Phosphorus oxychloride | | ✚ | ○ | ✚ | ○ |
| Phosphorus pentoxide | 100% | ✚ | ✚ | ✚ | ✚ |
| Phosphorus trichloride | | ▬ | ▬ | ▬ | ▬ |
| Photographic developers | | ✚▽ | ✚▽ | ✚▽ | ✚▽ |
| Photographic emulsions | as supplied commerc. | ✚ | ✚ | ✚ | ✚ |
| Photographic fixing baths | as supplied commerc. | ✚ | ✚ | ✚ | ✚ |
| Phthalic acid, aqueous | 50% | ✚ | ✚ | ✚ | ✚ |
| Phthalic acid dibutyl ester (dibutyl phthalate) | techn. grade | ✚ | ○ | ○ | ○ |
| Phthalic ester | | ✚ | ✚ to ○ | ✚ | ○ |
| Picric acid, aqueous | 1% | ✚ | | ✚ | |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Pineapple juice | | ✓ | ✓ | ✓ | ✓ |
| Pine needle oil | | ✓ | | ✓ | |
| Plasticisers | | ✓ | ○ | ○ | ○ |
| Polyacrylic acid emulsions | | ✓ | ✓ | ✓ | ✓ |
| Polyester plasticisers | | ✓ | ✓ to ○ | ○ | ○ |
| Polyester resins | | ○ | – | ○ | – |
| Polyglycols | | ✓ | ✓ | ✓ | ✓ |
| Polysolvan® O (glycolic acid butyl ester) | | ✓ | ✓ | ✓ | ○ |
| Potassium aluminium sulphate, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium bicarbonate, aqueous | saturated | ✓ | ✓ | ✓ | ✓ |
| Potassium bisulphate, aqueous | saturated | ✓ | ✓ | ✓ | ✓ |
| Potassium bisulphite, aqueous | saturated | ✓ | ✓ | ✓ | ✓ |
| Potassium borate, aqueous | 1% | ✓ | ✓ | ✓ | ✓ |
| Potassium bromate, aqueous | up to 10% | ✓ | ✓ | ✓ | ✓ |
| Potassium bromide, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium carbonate, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium chlorate, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium chloride, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium chromate, aqueous | 40% | ✓ | ✓ | ✓ | ✓ |
| Potassium chromic sulphate (chrome alum), aqueous | saturated | ✓ | ✓ | ✓ | ✓ |
| Potassium cyanide, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium dichromate, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium ferrocyanide and ferricyanide, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium fluoride, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium hexacyanoferrate, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium hydroxide | | ✓ | ✓ | ✓ | ✓ |
| Potassium hydroxide, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium hydroxide solution | 50% | ✓ | ✓ | ✓ | ✓ |
| Potassium hypochlorite, aqueous | saturated | ○ | – | ○ | – |
| Potassium iodide, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium nitrate, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium perborate | | ✓ | ✓ | ✓ | ✓ |
| Potassium perchlorate, aqueous | up to 10% | ✓ | ○ | ✓ | ○ |
| Potassium perchlorate, aqueous | 1% | ✓ | | ✓ | |
| Potassium permanganate | 20% | ✓ | ✓▽ | ✓ | ✓▽ |
| Potassium permanganate, aqueous | up to 6% | ✓ | ✓▽ | ✓ | ✓▽ |
| Potassium persulphate, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium phosphate, aqueous | saturated | ✓ | ✓ | ✓ | ✓ |
| Potassium sulphate, aqueous | any | ✓ | ✓ | ✓ | ✓ |
| Potassium sulphide, aqueous | saturated | ✓ | ✓ | ✓ | ✓ |
| Potassium sulphite, aqueous | saturated | ✓ | ✓ | ✓ | ✓ |
| Potassium tetracyanocuprate, aqueous | saturated | ✓ | ✓ | ✓ | ✓ |
| Potassium thiosulphate, aqueous | saturated | ✓ | ✓ | ✓ | ✓ |
| Propane, gaseous | techn. grade | ✓ | | | |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Propanol-(2) (isopropyl alcohol) | | ✚ | ✚ | ✚ | ✚ |
| n-Propanol (n-propyl alcohol) | | ✚ | ✚ | ✚ | ✚ |
| Propanol (propyl alcohol) | | ✚ | ✚ | ✚ | ✚ |
| Propargyl alcohol, aqueous | 7% | ✚ | ✚ | ✚ | ✚ |
| Propionic acid, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Propylene dichloride | 100% | − | | − | |
| Propylene glycol | | ✚ | ✚ | ✚ | ✚ |
| Propylene oxide | | ✚ | ✚ | | |
| Pseudocumene | | ○ | ○ | | |
| Pyridine | | ✚ | ○ | ✚ | ○ |
| | | | | | |
| Quinine | | ✚ | ✚ | ✚ | ✚ |
| | | | | | |
| Release agents | | ✚ | ✚ | | |
| Roasting gases, dry | any | ✚ | ✚ | | |
| Rubber dispersions (latex) | | ✚ | ✚ | ✚ | ✚ |
| | | | | | |
| Sagrotan® | | ✚ | ○ | ✚ | ○ |
| Salicylic acid | | ✚ | ✚ | ✚ | ✚ |
| Salt brines | saturated | ✚ | ✚ | ✚ | ✚ |
| Saturated steam condensate | | ✚ | ✚ | ✚ | ✚ |
| Sauerkraut (pickled cabbage) | | ✚ | ✚ | ✚ | ✚ |
| Sea water | | ✚ | ✚ | ✚ | ✚ |
| Silicic acid, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Silicone emulsion | as supplied commerc. | ✚ | ✚ | ✚ | ✚ |
| Silicone oil | techn. grade | ✚ | ✚ | ✚ | ✚ |
| Silver nitrate | | ✚ | ✚ | ✚ | ✚ |
| Silver nitrate, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Silver salts, aqueous | cold saturated | ✚ | ✚ | ✚ | ✚ |
| Soap solution, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Soda (sodium carbonate), aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Sodium acetate, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Sodium aluminium sulphate | | ✚ | ✚ | ✚ | ✚ |
| Sodium benzoate, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Sodium bicarbonate, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Sodium bisulphate, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Sodium bisulphite, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Sodium borate | | ✚ | ✚ | ✚ | ✚ |
| Sodium bromide | | ✚ | ✚ | ✚ | ✚ |
| Sodium carbonate, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Sodium chlorate, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Sodium chloride, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Sodium chlorite, aqueous | 50% | ✚ | | ✚ | |
| Sodium chromate | | ✚ | ✚ | ✚ | ✚ |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Sodium cyanide | | ✚ | ✚ | ✚ | ✚ |
| Sodium dichromate | | ✚ | ✚ | ✚ | ✚ |
| Sodium dodecylbenzenesulphonate | | ✚ | ✚ | ✚ | ✚ |
| Sodium ferricyanide, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Sodium ferrocyanide | | ✚ | ✚ | ✚ | ✚ |
| Sodium fluoride | | ✚ | ✚ | ✚ | ✚ |
| Sodium hexametaphosphate, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Sodium hydroxide, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Sodium hydroxide, solid | | ✚ | ✚ | ✚ | ✚ |
| Sodium hypochlorite, aqueous with 12.5 % active chlorine** | | ○ | – | ○ | – |
| Sodium iron cyanide | | ✚ | ✚ | ✚ | ✚ |
| Sodium nitrate, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Sodium nitrite, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Sodium perborate, aqueous | any | ✚ | ○ | ✚ | ○ |
| Sodium perchlorate, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Sodium peroxide, aqueous | saturated | ○ | | ○ | |
| Sodium peroxide, aqueous | 10% | ✚ | ✚ | ✚ | ✚ |
| Sodium phosphate, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Sodium silicate | | ✚ | ✚ | ✚ | ✚ |
| Sodium silicate, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Sodium sulphate, aqueous | cold saturated | ✚ | ✚ | ✚ | ✚ |
| Sodium sulphide, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Sodium tetraborate (borax), aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Sodium thiosulphate, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Soft soap | | ✚ | ✚ | ✚ | ✚ |
| Soya bean oil | | ✚ | ✚ | ✚ | ○ |
| Spermaceti | | ✚ | | ○ | |
| Spindle oil | | ✚ to ○ | ○ | ○ | |
| Spirits | | ✚ | | ✚ | |
| Stain remover | | ✚ to ○ | ○ | ○ | |
| Starch, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Starch gum (dextrin), aqueous | 18% | ✚ | ✚ | ✚ | ✚ |
| Starch syrup | | ✚ | ✚ | ✚ | ✚ |
| Stearic acid | | ✚ | ○ | ✚ | ○ |
| Styrene | | ○ | – | ○ | – |
| Succinic acid, aqueous | 50% | ✚ | ✚ | ✚ | ✚ |
| Sugar beet juice | | ✚ | ✚ | ✚ | ✚ |
| Sugar syrup | | ✚ | ✚ | ✚ | ✚ |
| Sulphates, aqueous solutions | any | ✚ | ✚ | ✚ | ✚ |
| Sulphur | | ✚ | ✚ | ✚ | ✚ |
| Sulphuric acid, aqueous | up to 50% | ✚ | ✚ | ✚ | ✚ |
| Sulphuric acid, aqueous | 70% | ✚ | ○ | ✚ | ○ |
| Sulphuric acid, aqueous | 80% | ✚ | ○ | ✚ | ○ |
| Sulphuric acid, aqueous | 98% | ○[1)] | – | ○ | – |

1) *Lupolen* and *Hostalen* blow mouldings that have been approved for use with dangerous filling substances are suitable for contact with e. g. 98% Sulphuric acid

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Sulphurous acid | | ✚ | ✚ | ✚ | ✚ |
| Sulphuryl chloride (sulphonyl chloride) | | ▬ | | ▬ | |
| Sulphur dioxide, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Sulphur dioxide, gaseous | | ✚ | ✚ | | |
| Sulphur trioxide | | ▬ | | ▬ | |
| Tallow | techn. grade | ✚ | ✚ | ✚ | ✚ |
| Tannic acid (tannin), aqueous | 10% | ✚ | ✚ | ✚ | ✚ |
| Tanning extracts, vegetable | as supplied | ✚ | | ✚ | |
| Tartaric acid, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Tetrabromomethane | | ○ to ▬ | ▬ | ▬ | ▬ |
| Tetrachloroethane | | ○ to ▬ | ▬ | ▬ | ▬ |
| Tetrachloroethylene | | ○ to ▬ | ▬ | ▬ | ▬ |
| Tetrachloromethane (carbon tetrachloride) | techn. grade | ○ | ▬ | ▬ | ▬ |
| Tetrahydrofuran | techn. grade | ○ to ▬ | ▬ | ▬ | ▬ |
| Tetrahydronaphthalene (Tetralin®) | techn. grade | ✚ | ▬ | ○ | ▬ |
| Thioglycolic acid | | ✚ | ✚ | ✚ | ✚ |
| Thionyl chloride | | ▬ | | ▬ | |
| Thiophene | | ○ | ▬ | ○ | ▬ |
| Tin (II) chloride, aqueous | any | ✚ | ✚ | ✚ | ✚ |
| Tin (IV) chloride, aqueous | saturated | ✚ | ✚ | ✚ | ✚ |
| Toluene | techn. grade | ○ | ▬ | ○ | ▬ |
| Toluic acids (methyl benzoic acids) | saturated | ○ | | ○ | |
| Tomato juice | | ✚ | ✚ | ✚ | ✚ |
| Transformer oil (insulating oil) | techn. grade | ✚ | ○ | ✚ | ○ |
| Tributyl phosphate | | ✚ | ✚ | ✚ | |
| Trichloroacetaldehyde (chloral) | techn. grade | ✚ | ✚ | ○ | ▬ |
| Trichloroacetic acid | techn. grade | ✚ | ○ to ▬ | ○ | ▬ |
| Trichloroacetic acid, aqueous | 50% | ✚ | ✚ | ✚ | ✚ |
| Trichlorobenzene | | ▬ | ▬ | ▬ | ▬ |
| Trichloroethylene | techn. grade | ○ to ▬ | ▬ | ▬ | ▬ |
| Tri-ß-chloroethylphosphate | | ✚ | ✚ | ✚ | |
| Tricresyl phosphate | | ✚ | ✚ | ✚ | |
| Triethanolamine | | ✚ | ✚▽ | ✚ | ○▽ |
| Triethanolamine (2,2'2''-nitrilotriethanol), aqueous | any | ✚ | ○ | ✚ | ○ |
| Triethylene glycol | | ✚ | ✚ | ✚ | ✚ |
| Trilon® | | ✚ | ✚ | | |
| Trimethylol propane, aqueous | | ✚ | ✚ | ✚ | ✚ |
| Trimethyl borate | | ✚ | ○ to ▬ | ✚ | ▬ |
| Trioctyl phosphate | | ✚ | ○ | ✚ | |
| Trisodium phosphate | | ✚ | ✚ | ✚ | ✚ |
| Turpentine oil | techn. grade | ✚ to ○ | ▬ | ○ | ▬ |
| Tutogen® U | | ✚ | ✚ | | |
| Tween® 20 and 80 | | ✚ | ▬ | | |
| Two-stroke oil | | ✚ | ○ | | |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Urea, aqueous | up to 33% | ✪ | ✪ | ✪ | ✪ |
| Uric acid | | ✪ | ✪ | ✪ | ✪ |
| Urine | | ✪ | ✪ | ✪ | ✪ |
| | | | | | |
| Vaseline | techn. grade | ✪ to ○ | ○ | ○ | ○ |
| Vaseline oil | techn. grade | ✪ to ○ | ○ | ○ | ○ |
| Vinegar (wine vinegar) | as supplied commerc. | ✪ | ✪ | ✪ | ✪ |
| Vinylidene chloride (1,1-dichloroethylene) | techn. grade | – | | – | |
| Vinyl acetate | | ✪ | ✪ | ✪ | ○ |
| Viscose spinning solutions | | ✪ | ✪ | ✪ | ✪ |
| Vitamin C | | ✪ | | ✪ | |
| Vitamin preparations, dry (powder) | | ✪ | | ✪ | |
| | | | | | |
| Walnut oil | | ✪ | ○ | ✪ | ○ |
| Washing up liquids | usual | ✪ | ✪ | ✪ | ✪ |
| Waste gases containing carbonic acid | any | ✪ | ✪ | | |
| Waste gases containing carbon dioxide | any | ✪ | ✪ | | |
| Waste gases containing carbon monoxide | any | ✪ | ✪ | | |
| Waste gases containing hydrochloric acid | any | ✪ | ✪ | | |
| Waste gases containing hydrogen fluoride | trace | ✪ | ✪ | | |
| Waste gases containing nitrogen oxides | trace | ✪ | ✪ | | |
| Waste gases containing sulphur dioxide | low | ✪ | ✪ | | |
| Waste gases containing sulphuric acid (moist) | any | p | p | | |
| Waste gases containing sulphur trioxide | | | | | |
| (fuming sulphuric acid) | trace | – | | – | |
| Water, distilled | | ✪ | ✪ | ✪ | ✪ |
| Waxes | | ✪ | ✪ to ○ | ✪ | ○ |
| Wax alcohols | techn. grade | ○ | ○ | | |
| Whey | | ✪ | ✪ | ✪ | ✪ |
| Whisky | | ✪ | | ✪ | |
| White spirit | techn. grade | ✪ | | ○ | |
| Wine | | ✪ | | ✪ | |
| Wine vinegar (table vinegar) | as supplied commerc. | ✪ | ✪ | ✪ | ✪ |
| Wood stains | end use concentration | ✪ | ✪ to ○ | | |
| | | | | | |
| Xylene | | ○ | – | ○ | – |
| | | | | | |
| Yeast | | ✪ | ✪ | ✪ | ✪ |
| | | | | | |
| Zinc carbonate | | ✪ | ✪ | ✪ | ✪ |
| Zinc chloride, aqueous | any | ✪ | ✪ | ✪ | ✪ |
| Zinc oxide | | ✪ | ✪ | ✪ | ✪ |
| Zinc salts, aqueous | any | ✪ | ✪ | ✪ | ✪ |
| Zinc sludge | | ✪ | ✪ | ✪ | ✪ |

| Substance | Concentration | Behaviour of MDPE/HDPE at | | Behaviour of LDPE/LLDPE/ mLLDPE at | |
|---|---|---|---|---|---|
| | | 20 °C | 60 °C | 20 °C | 60 °C |
| Zinc stearate | | ✣ | ✣ | ✣ | ✣ |
| Zinc sulphate, aqueous | any | ✣ | ✣ | ✣ | ✣ |