

Detailed List of Gas Group II Compounds

Subdivision A

Hydrocarbons	Alkanes		Alkenes	Benzenoids	
	Decane Cyclobutane Cyclopentane Cyclohexane Cycloheptane Methylcyclobutane Methylcyclopentane Methylcyclohexane Decahydronaphthalene (Dekalin)	Alkanes Methane Ethane Propane Butane Pentane Hexane Heptane Octane Nonane	Propene (Propylene) Aromatic Hydrocarbons Styrene Isopropenylbenzene (Methyl Styrene)	Benzene Ethylbenzene Trimethyl Benzene Naphthalene Solvent or Cleaning Petroleum (including Motor Spirit Mixed Hydrocarbons Methane (industrial) Petroleum Naphtha Coal Tar Naphtha	Cymene Turpentine Cumene Toluene Xylene Petroleum Heating Oil Kerosene Diesel Oil Motor Benzole
Compounds containing Oxygen	Oxides	Alcohols and Phenols		Ketones	Esters
	(Including Ethers) Carbon Monoxide Dipropyl Ether	Methanol Ethanol Propanol Butanol Pentanol Hexanol	Nonanol Cyclohexanol Methylcyclohexanol Phenol Cresol 4-Hydroxy-4-Methylpentan-2-One (Diacetone Alcohol)	Acetone Butanone (Ethyl Methyl Ketone) Pentan-2-One (Propyl Methyl Ketone) Hexan-2-One (Butyl Methyl Ketone) Amyl Methyl Ketone Pentane-2, 4-Dione (Acetylacetone) Cyclohexanone	Methyl Formate Ethyl Formate Methyl Acetate Ethyl Acetate Propyl Acetate Butyl Acetate Amyl Acetate Methyl Methacrylate Ethyl Methacrylate Vinyl Acetate Ethyl Acetoacetate
	Aldehydes	Heptanol Octanol			
	Acetaldehyde Metaldehyde	Acids	Acetic Acid		
Compounds containing Halogens	Compounds without Oxygen			Compounds with Oxygen	
	Dichloroethane Dichloropropane Chlorobenzene Dichlorobenzene Chlorobutane	Chloromethane Chloroethane Benzyl chloride Bromobutane Allyl chloride	Dichloroethylene Bromoethane Chloropropane Chloroethylene (Vinyl Chloride)	D,D,D-Trifluorotoluene (Benzotrifluoride) Dichloromethane (Methylene Chloride)	Acetyl Chloride Chloroethanol
Compounds containing Sulphur	Ethanethiol (Ethylmercaptan)	Thiophene	Propane-1-Thiol (Propylmercaptan)	Tetrahydrothiophene	
Compounds containing Nitrogen	Ammonia Acetonitrile Ethyl Nitrite Nitromethane Nitroethane	Amines	Diethylamine Triethylamine Diaminoethane NN-Dimethylaniline Propylamine	Cyclohexylamine 2-Aminoethanol (Ethanolamine) 2-Diethylaminoethanol	Toluidine Aniline Pyridine Butylamine

Subdivision B

Hydrocarbons	Propine (Allylene, Methylacetylene)	Ethylene	Cyclopropane	1,2-Butadiene	
Compounds containing Nitrogen	Acrylonitrile	Isopropyl Nitrate	Hydrogen Cyanide		
Compounds containing Oxygen	Ethylene Oxide (Oxione) 1,2-epoxypropane (Propylene Oxide) Acrylaldehyde (Acrolein)	Diethyl Ether Dibutyl Ether 1,4-Dioxan 1,3,5-Trioxan	Dimethyl Ether Ethyl Methylene 1,3-Dioxolane Crotonaldehyde	Butyl Glycolate (Hydroxyacetic Acid, Butyl Ester) Tetrahydrofuran	Tetrahydrofurfuryl Alcohol Methyl Acrylate Ethyl Acrylate
Mixtures	Coke Oven Gas				
Compounds containing Halogens	Tetrafluoroethylene	1-Chloro-2, 3-Epoxypropane (Epichlorohydrin)			

Subdivision C

Hydrogen	Acetylene	Ethyl Nitrate	Carbon Disulphide		
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## Tables for Chemical Resistance

Chemical Material Investigated	Aluminium	Fibreglass	Acrylic	Polycarbonate	Stainless Steel
Accumulator Acid	N	R	R	L	L
Acetic Acid up to 5%	L	R	R	R	R
Acetic Acid up to 15%	N	R	R	R	R
Acetone	R	N	N	N	R
Alcohol up to 30%	L	R	R	R	R
Alcohol concentrate	R	N	N	R	R
Ammonia 25%	R	L	R	L	R
Aniline	R	N	N	N	R
Aromatic Hydrocarbons	R	L	R	S	R
Benzene	R	N	N	L	R
Carbon Dioxide	R	R	R	R	R
Carbon Monoxide	R	R	R	R	R
Carbon Tetrachloride	L	L	L	R	R
Caustic Soda 2%	N	L	R	N	R
Caustic Soda 10%	N	N	R	N	R
Chloroform	R	N	N	N	L
Common Salt	L	R	R	L	R
Crude Oil	R	R	R	S	R
Diesel Oil	R	R	R	L	R
Dioxane		R	N	N	R
Ether	R	L	N	N	R
Ethyl Acetate	R	N	N	R	R
Glycerine	R	R	R	L	R
Glycol	R	R	R	R	R
Hydrobromic Acid	N	N	L		N
Hydrocarbons	R	L	L	S	R
Hydrochloric Acid 5%	N	R	R	R	N
Hydrochloric Acid 30%	N	R	R	R	N

Chemical Material Investigated	Aluminium	Fibreglass	Acrylic	Polycarbonate	Stainless Steel
Hydrochloric Acid 96%	N	R	R	R	N
Hydrogen Peroxide over 40%	R	N	L	N	R
Hydrogen Sulphide	R	R	R	R	R
Ketones	R	N	N	R	R
Lyso	R	N	N	N	R
Metal Salts and their aqueous solutions	N	R	R	R	L
Methanol	R	L	N	L	R
Methylene Chloride	L	N	N	N	R
Milk of Lime	N	R	R	L	R
Nitric Acid 5%	N	R	R	R	R
Nitric Acid 30%	N	L	L	L	L
Nitric Acid concentrate	N	N	N	N	R
Petrol	R	R	R	R	R
Petroleum Ether	R	R	R	R	R
Phenol	L	N	N	N	R
Pyridine	R	N	N	R	R
Sea Water	L	R	R	R	R
Soap Suds	L	R	R	S	R
Soda	N	R	R	R	L
Sulphuric Acid 5%	N	R	R	R	N
Sulphuric Acid 30%	N	R	R	R	N
Sulphuric Acid concentrate	N	N	N	L	N
Sulphurous Acid 5%	L	L	R	N	L
Synthetic detergent	N	R	R	R	R
Turpentine	R	R	R	R	R
Water up to 70° C	R	R	R	R	R
Xylene	R	N	N	N	R

## Ambient temperature 20° C

- R Resistant
- L Resistant within limits
- N Not resistant
- S Resistant when saturated, resistant within limits when saturated.

### Chemical Resistance Table (Standard Polycarbonate)

#### Polycarbonate

Polycarbonate is soluble in a number of technical solvents. Good solvents include: methylene chloride, ethylene chloride, trichloroethane, tetrachloroethane, chloroform, m-cresol and pyridine.

Comparatively poor solvents for polycarbonate include: deoxane, tetrahydrofuran, cyclohexanone and dimethylformamide.

Examples of swelling agents are: benzene, chlorobenzene, tetralin, acetone, ethyl acetate, acetonitrile and carbon tetrachloride.

Polycarbonate is resistant to mineral acids, even in high concentrations, many organic acids, oxidising and reducing agents, neutral and acid salt solutions, many greases, waxes and oils, saturated, aliphatic and cycloaliphatic hydrocarbons and alcohols,

with the exception of methyl alcohol.

Polycarbonate is chemically degraded by aqueous or alcoholic alkaline solutions, ammonia gas and its solutions and also by amines.

Chemicals	ether	N	propionic acid 20%	R	Detergents, rinsing and cleaning	Polishes and anti-static agents	
acetaldehyde	N	ethyl alcohol 96% pure	R	sodium bicarbonate, saturated solution in water	agents	Delu® anti-static solution	R
acetic acid up to 10%	R	ethylene chloride	N	sodium chloride, saturated solution in water	Ajax®	Perspex polish 3®	R
acetone	N	ethylene glycol	R	sulphur dioxide	Persil®	Plexiklar®	R
acrylonitrile	N	formalin 10%	R	sulphuric acid, conc.	Pril®	Polifac® grinding paste	R
ammonia	N	formic acid 30%	L	sulphuric acid 50%	silicone oil emulsion		
ammonium hydroxide solution	N	glycol	R	toluene	soft soap		
ammonium sulphate, saturated solution in water	R	heptane	R	trichloroethylene	tuba carpet shampoo conc.		
benzene	N	hydrochloric acid, conc.	N				
benzoic acid	N	hydrochloric acid 20%	R	<b>Disinfectants</b>	<b>Technical oils and greases</b>	<b>Inks</b>	
borax, saturated solution in water	R	hydrogen sulphide	R	carbolic acid	Baysilone® fluids (silicone fluids)	multimarker (Faber Castell)	L
bromine	N	ligroin (hydrocarbon mixture)	R	hydrogen peroxide	brake fluid (ATE)	pelican royal blue 4001	R
butylene glycol	R	methane	R	iodine, tincture	camphor oil		
calcium hypochlorite	R	methanol	N	perhydrol	diesel oil	<b>Miscellaneous</b>	
carbon dioxide, moist	R	methylmethacrylate	N		fish liver oil	battery acid	R
caustic potash	N	nitric acid 10%	R	<b>Pharmaceuticals, Cosmetics</b>	hydraulic fluid (Vac HLP 16)	chrome oxide green (grinding paste)	R
caustic soda	N	nitric acid 20%	N	lanolin	paraffin oil	cleaning petrol	R
chlorinated lime solution 2% in water	R	nitrous fumes, dry	N	nail varnish remover	silicone oil	coal gas	R
chlorine gas, dry	L	ozone	R		turpentine substitute	exhaust fumes, acidic	R
chlorine gas, moist	N	petroleum ether (hydrocarbon mixture)	L	<b>Foodstuffs, drinks and tobacco</b>	varnish	kerosene, (aviation fuel)	N
chromic acid, 20% in water	R	petroleum spirit (for dry cleaning, free of aromatics)	R	allspice		motor fuel, high octane	N
coal gas	R	phenol	N	coffee	<b>Adhesives and sealants</b>	motor fuel, ordinary	L
cresol	N	potassium cyanide	N	edible oil	Cellux® adhesive films	grade	
dibutyl phthalate (plasticiser)	N	potassium permanganate, 10% in water	R	fruit juices	glazier's putty	polyethylene	R
diethylene glycol	R	potassium sulphate, saturated solution in water	R	glucose	insulating tape	polymeric plasticisers	L
dioxane	N			linseed oil	rubber (free of plasticiser)	tannic acid	N
ethanol	R			nutmeg		thinners	N
				sugar solution, saturated		white spirit	N
				vegetable juices			
				vegetable oil			

R Resistant  
L Resistant within limits  
N Not resistant



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This advice does not release you from the obligation to check its validity.