

Introduction

Information in the accompanying tables show the effect on Vulcathene of a wide range of chemicals. These results have been obtained from laboratory tests and when assessing them it should be remembered that unadulterated samples were used. In a typical chemical waste drainage application, however, water and other innocuous fluids would be discharged into the system to have a dilutionary effect on any noxious material that may be present.

If in any doubt about the action of any chemicals on Vulcathene or there is the possibility that Vulcathene is to be used in situations where specialised or unusual chemicals are involved, please contact our Technical Services Department.

The tables are intended to serve only as a guide and no guarantees can be given in respect of the data shown, which is based upon information available at the time of printing. Durapipe - UK reserves the right to make any modifications deemed necessary by the acquisition of new data.

Classification

- + Resistant
 - * Likely to be resistant
 - Not resistant
- No data available

Vulcathene is classed * Likely to be resistant on the basis of the way the material behaves with chemicals of the same family group and where extensive usage by Vulcathene customers indicates suitability.

Vulcathene is classed - Not resistant on the basis of unadulterated test samples. In practice, the routine disposal of a wide variety of hot and cold chemicals is accompanied by appropriate amounts of water for the purpose of dilution and flushing.

Where no data is available, but where details or samples of chemicals can be supplied, Durapipe - UK will conduct chemical suitability tests and make recommendations accordingly.

The following notes should be read in conjunction with the chemical resistance tables:

1. These are compounds whose general formula is either $(R1)_2SO_4(R2)_2(SO_4)_6 \cdot 24 H_2O$ or $(R1)(R2)(SO_4)_2 \cdot 12 H_2O$, where R1 represents an atom of Potassium, Sodium, Ammonium, Rubidium, Caesium, Silver or Thallium; and (R2) represents an atom of Aluminium, Iron, Chromium, Manganese or Thallium.
2. This substance is insoluble in pure water. If conveyed aqueous it would always be in the form of a suspension.
3. This substance decomposes in hot water. Unless suitability is indicated refer to Durapipe - UK.
4. Substances which are generally categorised can have widely variable compositions, and therefore each needs to be tested for suitability. Refer to Durapipe - UK.
5. This substance is only sparingly soluble in water. If conveyed aqueous it would usually be in the form of a suspension.
6. This substance is sparingly soluble in water, which then reacts with it.
7. A solution of Chromium trioxide in water, often produced by the action of concentrated Sulphuric acid on Sodium dichromate.

COSHH Regulations

Attention is drawn to the requirements of the Health & Safety at Work Act and COSHH regulations. Durapipe - UK cannot accept any responsibility for accidents arising from the misuse of its products, faulty installation and incorrect application. Copies of COSHH Regulations are available on request.

Substance	Formula	Concentration	Chemical Resistance of Vulcathene		
			20°C	60°C	80°C
Acetaldehyde, aqueous		40%	+	+	
Acetamide, aqueous	CH ₃ .CONH ₂		+	+	
Acetic acid	CH ₃ .COOH	100%	+		-
Acetic acid, aqueous		70%	+	+	+
Acetic anhydride	(CH ₃ CO) ₂ O	techn. grade	+		-
Acetone	(CH ₃) ₂ CO	techn. grade	+	+	
Acetophenone	C ₆ H ₅ CO. ₂ CH ₃	techn. grade	+		
Acrylonitrile	CH ₂ :CH. ₂ CN	techn. grade	+		
Adipic acid, aqueous	(CH ₂ CH ₂ C.COOH) ₂	saturated	+	+	+
Air			+	+	+
Ally alcohol (2-Propenol-1)	CH ₂ CH:CH ₂ OH	96%	+	+	
Aluminium chloride, aqueous	AlCl ₃ .AlCl ₃ .6H ₂ O	any	+	+	+
Aluminium chloride, solid			+	+	
Aluminium fluoride	AlF ₃ .AlF ₃ .H ₂ O AlF ₃ .3 ¹ / ₂ H ₂ O	conc.	+	+	+
Aluminium hydroxide (See Note 2)	Al(OH) ₃		+	+	
Aluminium metaphosphate	Al (PO ₃) ₃		+	+	+
Aluminium sulphate, aqueous	Al ₂ (SO ₄) ₃ , Al ₂ (SO ₄) ₃ . 18 H ₂ O	saturated	+	+	+
Aluminium sulphate, solid			+	+	
Alum, aqueous (See Note 1)		any	+	+	+
Amino acids			+	+	+
2-Aminoethanol (Ethanolamine)	H ₂ NCH ₂ CH ₂ OH	techn. grade	+		
Ammonia, aqueous	NH ₃	any	+	+	
Ammonia, gaseous			+	+	
Ammonia, liquid			+		
Ammonia water		any	+	+	
Ammonium acetate, aqueous	CH ₃ CO ₂ NH ₄	any	+	+	+
Ammonium carbonate, aqueous (See Note 3)	NH ₄ HCO ₃ .NH ₂ COONH ₄ .H ₂ NCOONH ₄	any	+	+	+
Ammonium chloride, aqueous (See Note 3)	NH ₄ Cl	any	+	+	+
Ammonium fluoride, aqueous (See Note 3)	NH ₄ F	saturated	+	+	
Ammonium hydrogen carbonate, aqueous	NH ₄ HCO ₃	saturated	+	+	
Ammonium hydrosulphide, aqueous	NH ₄ HS	any	+	+	
Ammonium nitrate, aqueous	NH ₄ NO ₃	any	+	+	+
Ammonium phosphate(s)	NH ₄ H ₂ PO ₄ .(NH ₄) ₂ HPO ₄ .(NH ₄) ₃ PO ₄ .3H ₂ O	any	+	+	+
Ammonium sulphate, aqueous	(NH ₄) ₂ SO ₄	any	+	+	+
Ammonium sulphide, aqueous	(NH ₄) ₂ S	any	+	+	+
Ammonium thiocyanate	NH ₄ SCN			-	-
Amyl acetate	CH ₃ .COO.(CH ₂) ₄ .CH ₃ , Pentyl acetate	techn. grade		-	-
Amyl alcohol (C ₅ alcohols)	CH ₃ .(CH ₂) ₃ .CH ₂ OH, Pentan-1-ol, Butyl carbinol	tech. grade	+	+	+
Aniline	C ₆ H ₅ NH ₂	any	+	+	
Aniline hydrochloride, aqueous	C ₆ H ₅ NH ₂ .HCl	any	+	+	
Animal oils			+		
Anon (Cyclohexanone)	CH ₂ .(CH ₂) ₄ .CO		+		
Anthraquinone sulphonic acid, aqueous (susp.)	C ₆ H ₄ (CO ₂)C ₆ H ₄ SO ₃ H		+		
Antifreeze (automotive) (See Note 4)		as supplied commercially			
Antimony chloride, anhydrous	SbCl ₃		+	+	
Antimony pentachloride	SbCl ₅		+	+	
Antimony trichloride	SbCl ₃ , Antimony (III) chloride, Butter of Antimony		+	+	
Aqua regia	(HCl+HNO ₃)		-	-	

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Substance	Formula	Concentration	Chemical Resistance of Vulcathene		
			20°C	60°C	80°C
Aromatic oils			-	-	
Arsenic acid, aqueous	HA ₅ O ₃	any	+	+	
Arsenic acid anhydride			+	+	
Ascorbic acid			+	+	
Asphalt			+		
®Asprin			+		
Barium hydroxide, aqueous	Ba(OH) ₂ ·8H ₂ O	any	+	+	+
Battery acid			conc. H ₂ SO ₄ diluted with water to about 25%	+	+
Beater glue (animal glue)		as supplied	+	+	
Beef tallow			+	+	
Beer			+	+	
Beer sugar colouring		as supplied commercially	+	+	
Beeswax			+		
Benzaldehyde, aqueous	C ₆ H ₅ .CHO	any	+		
Benzene			techn. grade	-	-
Benzene sulphonic acid	C ₆ H ₅ SO ₃ H		+	+	
Benzoic acid, aqueous	C ₆ H ₅ CO ₂ H		+	+	+
Benzyl alcohol	C ₆ H ₅ .CH ₂ OH		+	+	
Benzyl chloride	C ₆ H ₅ .CH ₂ Cl		-	-	-
Bichromate - sulphuric acid		conc.	-	-	-
Bismuth salts			+		
Bisulphite liquor			+	+	
Bitumen			+		
Bleaching solution containing 12.5% active chlorine**			-	-	-
Bone oil			+	+	
Borax (Sodium tetraborate), aqueous	Na ₂ B ₄ O ₇ , Na ₂ B ₄ O ₇ ·10H ₂ O, di-Sodium tetraborate	saturated	+	+	+
Boric acid, aqueous	H ₃ BO ₃	any	+	+	+
Brandy			+	+	
Bromic acid	Hbr	conc.	-	-	-
Bromine, liquid	Br ₂	100%	-	-	-
Bromine vapours			-	-	-
Butanediol, aqueous	HO(CH ₂) ₄ OH	any	+	+	+
Butanetriol, aqueous	HOCH ₂ CH ₂ CH(OH)CH ₂ OH	any	+	+	
Butanol, aqueous	CH ₃ (CH ₂) ₃ OH	any	+		
Butanone	C ₂ H ₅ COCH ₃		+		
2-Butenediol-1.4	HOCH ₂ CH=CHCH ₂ OH	techn. grade	+	+	
2-Butynediol-1.4	HOCH ₂ C≡CCH ₂ OH	techn. grade	+		
®Butoxyl (Metoxybutylacetate)	CH ₃ COO(CH ₂) ₄ OCH ₃		+		
Butter			+	+	
Butylene glycol	HO(CH ₂) ₄ OH	techn. grade	+		
Butyl acetate	CH ₃ .COO.(CH ₂) ₃ .CH ₃		*	-	-
Butyl acrylate	H ₂ C=CHCO ₂ (CH ₂) ₃ CH ₃		+		
Butyl alcohol	CH ₃ .(CH ₂) ₃ OH, Buton-I-ol		+		
Butyl phenol	C ₂ H ₅ CH(CH ₃)C ₆ H ₄ OH	techn. grade	+		
Butyl phenone	C ₆ H ₅ O(CH ₂) ₄ CH ₃	techn. grade	-	-	-
Butyl phthalate (Dibutyl phthalate)	C ₆ H ₄ O(COOC ₄ H ₉) ₂	techn. grade	+		
Butyric acid, aqueous	CH ₃ .CH ₂ .CH ₂ .COOH,	any	+		
Calcium carbide	CaC ₂		+	+	
Calcium carbonate (See Note 5)	CaCO ₃		+	+	+
Calcium chlorate, aqueous	Ca(ClO ₃) ₂	saturated	+	+	
Calcium chloride, aqueous	CaCl ₂ .CaCl ₂ ·2H ₂ O,CaCl ₂ ·6H ₂ O	saturated	+	+	+
Calcium hydroxide (See Note 5)	Ca(OH) ₂		+	+	+

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Substance	Formula	Concentration	Chemical Resistance of Vulcathene		
			20°C	60°C	80°C
Calcium hypochlorite, aqueous (suspension)	Ca(OCl) ₂		*	*	-
Calcium nitrate, aqueous	Ca(NO ₃) ₂ , Ca(NO ₃) ₂ .4H ₂ O	50%	+	+	+
Calcium oxide (powder) (See Note 6)	CaO		+	+	
Calcium sulphate (See Note 5)	CaSO ₄ , CaSO ₄ .2H ₂ O (Gypsum), CaSO ₄ . ¹ / ₂ H ₂ O (Plaster of Paris)		+	+	+
Camphor oil		any	-	-	-
Cane sugar, aqueous		any	+	+	
Carbazole	(C ₆ H ₄) ₂ NH		+	+	
Carbolic acid (Phenol)	C ₆ H ₅ OH		+		
Carbonic acid, aqueous	H ₂ CO ₃	any	+	+	
Carbonic acid, dry		100%	+	+	
Carbon dioxide	CO ₂	100%	+	+	
Carbon monoxide, gaseous	CO	techn. grade	+	+	
Castor oil			+	+	
Caustic soda solution	NaOH,	any	+	+	+
Cetyl alcohol (Hexadecanol)	CH ₃ (CH ₂) ₁₅ OH		+		
Chloral (Trichloroacetaldehyde)	CCl ₃ CHO	techn. grade	+	+	
Chloramine, aqueous	NH ₂ Cl	saturated	+		
Chloric acid, aqueous	HClO ₃	10%	+		-
Chloric acid, aqueous		20%	+	-	-
Chlorinated lime			+	+	
Chlorine, aqueous solution (chlorine water)	Cl ₂ + H ₂ O	saturated	*	-	-
Chlorine, gaseous, dry			-	-	-
Chlorine, gaseous, moist			-	-	-
Chlorine, liquid			-	-	-
Chlorine bleaching solution with 12.5% active chlorine			-	-	-
Chloroacetic acid, aqueous	ClCH ₂ CO ₂ H	<85%	+	+	
Chlorobenzene	C ₆ H ₅ Cl		-	-	-
Chloroform	CHCl ₃	techn. grade	-	-	-
Chloromethyl bromide	CH ₂ ClBr		-	-	-
Chlorosulphonic acid	ClSO ₃ H	techn. grade	-	-	-
Chrome alum (Potassium chromic sulphate) aqueous		saturated	+	+	+
Chrome anode slime			+		
Chromic acid, aqueous (See Note 7)		50%	-	-	-
Chromium trioxide, aqueous	CrO ₃	50%	-	-	-
Chromosulphuric acid			-	-	-
Cider			+	+	+
Citric acid, aqueous	C(OH)(COOH)(CH ₂ COOH) ₂ .H ₂ O	saturated	+	+	+
Citrus juices			+	+	
Coal tar oil			-	-	-
Coconut oil			+		
Coconut oil alcohol		techn. grade	+		
Cod liver oil			+		
Coffee extract			+	+	
Cognac			+		
Cola concentrates			+	+	
Common salt, aqueous	NaCl	any	+	+	+
Copper chloride, aqueous	CuCl, CuCl ₂ , CuCl ₂ .2H ₂ O	saturated	+	+	+
Copper cyanide, aqueous	Cu CN ₂	saturated	+	+	
Copper fluoride, aqueous	Cu F ₂	saturated	+		
Copper nitrate, aqueous	Cu(NO ₃) ₂ .3H ₂ O, Cupric nitrate	30%	+	+	
Copper sulphate, aqueous	CuSO ₄ , CuSO ₄ .5H ₂ O, Cupric sulphate	any	+	+	+

Substance	Formula	Concentration	Chemical Resistance of Vulcathene		
			20°C	60°C	80°C
Corn oil			+	+	
Cottonseed oil		techn. grade	+	+	
Coumarone resins			+		
Creosote			*		
Cresol	CH ₃ (C ₆ H ₄)OH	100%	+		
Cresol, aqueous	Isomers of CH ₃ .C ₆ H ₄ .OH,				
	Cresylic acid	dilute	+		
Crotonaldehyde	CH ₃ CH=CHCHO	techn. grade	+		
Cyclanone (fatty alcohol sulponate)		as supplied commercially	+	+	
Cyclohexanol	CH ₂ .(CH ₂) ₄ .CH.OH		+	+	
Cyclohexanone (Anon)	CH ₂ .(CH ₂) ₄ .CO		+		
Decahydronaphthalene (@Dekalin)	C ₁₀ H ₁₈	techn. grade	-	-	
Detergents			+	+	
Developer solutions (photographic)			+	+	
Dextrin (starch gum), aqueous		18%	+	+	+
Dextrose, aqueous	O(CH.OH) ₄ .CH.CH ₂ OH, D-Glucose	any	+	+	+
1.2-Diaminoethane (Ethylenediamine)	H ₂ NCH ₂ CH ₂ NH ₂	techn. grade	+	+	
1.2-Dibromoethane	BrCH ₂ CH ₂ Br		-	-	-
Dibutyl ether	[CH ₃ (CH ₂) ₃]O		-	-	-
Dibutyl phthalate (Butyl phthalate)	C ₆ H ₄ (COOC ₄ H ₉) ₂	techn. grade	+		
Dibutyl sebacate	CH ₃ (CH ₂) ₃ O ₂ C(CH ₂) ₈ CO ₂ (CH ₂) ₃ CH ₃		+		
Dichloroacetic acid	Cl ₂ CHCOOH	techn. grade	+		
Dichloroacetic acid methyl ester	Cl ₂ CHCO ₂ CH ₃		-	-	-
Dichlorobenzene	C ₆ H ₄ Cl ₂		-	-	-
Dichlorodiphenyltrichloroethane (DDT, powder)			+	+	
Diethanolamine	[CH ₂ (OH).CH ₂] ₂ NH	techn. grade	+		
Diethylene glycol	(HOCH ₂ CH ₂) ₂ O		+	+	
Diethyl ether	(C ₂ H ₅) ₂ O		-	-	-
Diglycolic acid, aqueous	O(CH ₂ CO ₂ H) ₂	30%	+	+	
Dihexyl phthalate	C ₆ H ₄ (COOC ₆ H ₁₁) ₂	techn. grade	+		
Diisobutylketone	[(CH ₃) ₂ CH.CH ₂] ₂ CO	techn. grade	+	-	-
Diisooctyl phthalate	C ₆ H ₄ (COOC ₈ H ₁₇) ₂	techn. grade	+		
Dimethylamine	(CH ₃) ₂ NH		+		
Dimethyl formamide	H.Co.N(CH ₃) ₂ , DMF, N.				
	N-Dimethylformamide	techn. grade	+	+	
Dinonyl phthalate (DNP)	C ₆ H ₄ (COOC ₉ H ₁₉) ₂	techn. grade	+		
Diocetyl phthalate	C ₆ H ₄ [COO.CH ₂ .CH(C ₂ H ₅)(CH ₂) ₃ CH ₃] ₂ , Di-(2-ethylhexyl) phthalate, DOP		+		
Disodium phosphate	Na ₂ HPO ₄		+	+	+
Disodium sulphate	Na ₂ SO ₄		+	+	+
Dodecylbenzenesulphonic acid	C ₁₂ H ₂₅ C ₆ H ₄ SO ₃ H		+		
Drinking water, also chlorinated	H ₂ O		+	+	+
Emulsions (photographic)			+	+	
Epichlorohydrin	ClCH ₂ (CH ₂) ₂ O		+		
Ethanolamine (2-Aminoethanol)	H ₂ NCH ₂ CH ₂ OH	techn. grade	+		
Ethanol	CH ₃ CH ₂ OH	96%	+	+	+
Ether, Diethyl ether	(C ₂ H ₅) ₂ O		-	-	-
Ethylenediamine tetraacetic acid	[CH ₂ .N(CH ₂ .COOH) ₂] ₂		+	+	+
Ethylene chlorohydrin (Chloroethanol)	ClCH ₂ CH ₂ OH	techn. grade	+		
Ethylene diamine (1.2-Diaminoethane)	H ₂ NCH ₂ CH ₂ NH ₂	techn. grade	+	+	
Ethylene dichloride (Dichloroethane)	ClCH ₂ CH ₂ Cl		-	-	-
Ethylene glycol	CH ₂ (OH).CH ₂ OH		+	+	+

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			20 °C	60 °C	80 °C
Ethylene glycol monobutyl ether	HOCH ₂ CH ₂ OC ₄ H ₉	techn. grade	+		
Ethylene oxide, gaseous	CH ₂ .CH ₂ O		+		
Ethyl acetate	CH ₃ .COO.C ₂ H ₅	techn. grade	+		
Ethyl alcohol	C ₂ H ₅ OH	techn. grade	+	+	+
Ethyl alcohol + Avetic acid (fermentation mixture)		as used in brewing	+	+	
Ethyl benzene	C ₆ H ₅ CH ₂ CH ₃	techn. grade	-	-	-
Ethyl chloride	C ₂ H ₅ Cl	techn. grade	-	-	-
Ethyl chloride (Chloroethane)	CH ₃ CH ₂ Cl	techn. grade	-	-	-
Ethyl ether	(C ₂ H ₅) ₂ O	techn. grade	-	-	-
Ethyl ether (Diethyl ether)	(C ₂ H ₅) ₂ O		-	-	-
Fatty acids			+	+	
Fatty acid amides			+		
Fatty alcohols			+		
Ferric ammonium sulphate, aqueous	NH ₄ Fe(SO ₄) ₂ . 12H ₂ O saturated		+	+	+
Ferric chloride	FeCl ₃ , FeCl ₃ .6H ₂ O, Iron (III) chloride	saturated	+	+	+
Ferric nitrate, aqueous	Fe(NO ₃) ₃ .9H ₂ O, Iron (III) nitrate	saturated	+	+	+
Ferric sulphate, aqueous (See Note 3)	Fe ₂ (SO ₄) ₃ , Fe ₂ (SO ₄) ₃ .xH ₂ O, Iron (III) sulphate	saturated	+	+	+
Ferrous chloride, aqueous	FeCl ₂ .4H ₂ O	saturated	+	+	+
Ferrous sulphate, aqueous	FeSO ₄ 7H ₂ O	saturated	+	+	+
Fertilizer salts, aqueous		any	+	+	
Fluorine, gaseous	F ₂		-	-	-
Formaldehyde, aqueous	HCHO	up to 40%	+	+	
Formamide	HCONH ₂		+	+	
Formic acid, aqueous	H.COOH	10%	+	+	
Formic acid, aqueous		85%	+		
Fructose	O.CH ₂ .(CH.OH) ₃ .C(OH).CH ₂ OH, Laevulose		+	+	+
Fruit juices		any	+	+	+
Fruit juices, fermented			+	+	+
Fruit pulp			+	+	+
Fuming sulphuric acid	(H ₂ SO ₄ + SO ₃)	any	-	-	-
Furfuryl alcohol	O.CH:CH.CH:C.C ₂ H ₄ OH		+		
Gas, manufactured		as supplied commercially	+		
Gas, natural		techn. grade	+		
Geletin			+	+	+
Gin			+		
Glacial acetic acid (100% acetic acid)	CH ₃ COOH	techn. grade	+		-
Glauber's salt, aqueous	Na ₂ SO ₄ 10H ₂ O	any	+	+	+
Glucose, aqueous		any	+	+	+
Glycerin(e)	CH ₂ OH.CHOH.CH ₂ OH, Glycerol 1,2,3-Propanetriol	any	+	+	+
Glycine (Aminoacetic acid)	H ₂ NCH ₂ CO ₂ H		+	+	
Glycolic Acid, aqueous	HOCH ₂ CO ₂ H	up to 70%	+		
Heptane	CH ₃ (CH ₂) ₅ CH ₃		-	-	-
Hexafluorosilicic acid, aqueous	H ₂ SiF ₆	40%	+	+	
Hexane	CH ₃ (CH ₂) ₄ CH ₃		-	-	-
Hexanetriol	HO(CH ₂) ₄ CH(OH)CH ₂ OH		+	+	+
Honey			+	+	+
Hydrazine hydrate	NH ₂ .NH ₂ H ₂ O		+		
Hydrobromic acid, aqueous	HBr	50%	+	+	
Hydrochloric acid, aqueous	HCl	any	+	+	
Hydrocyanic acid	HCN		+	+	

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			20°C	60°C	80°C
Hydrofluoric acid, aqueous	HF	85%	+		
Hydrogen	H ₂		+	+	
Hydrogen chloride gas, dry and moist			+	+	
Hydrogen peroxide, aqueous	H ₂ O ₂	10%	+	+	
Hydrogen peroxide, aqueous		30%	+		
Hydrogen sulphide, aqueous	H ₂ S	saturated	+	+	
Hydrogen sulphide, gaseous			+	+	
Hydroxylamine sulphated, aqueous	(H ₂ NOH) ₂ .H ₂ SO ₄	12%	+	+	
Hypochlorous acid	HOCl		*	*	
Ink			+	+	
Iodine in potassium iodide solution		3% iodine	*	*	
Iodine tincture		as supplied commercially	*		
Isobutyl alcohol (Isobutanol)	C ₂ H ₅ CH(OH)CH ₃		+		
Isooctane	(CH ₃) ₂ CHCH ₂ C(CH ₃) ₃		-	-	
Isopropanol	(CH ₃) ₂ CHOH	techn. grade	+	+	+
Isopropyl ether	[(CH ₃) ₂ CH] ₂ O	techn. grade	-	-	-
i-Propanol (i-Propyl alcohol)	(CH ₃) ₂ CHOH		+	+	+
Jam			+	+	+
Lactic acid, aqueous	CH ₃ .CHOH.COOH	any	+	+	+
Lactose (milk sugar)			+	+	+
Lanolin	(wool fat)		+		
Latex			+	+	
Lead acetate, aqueous	(CH ₃ .COO) ₂ Pb.3H ₂ O	any	+	+	+
Lead tetraethyl			+		
Lime (See Note 5)	CaO		+	+	+
Lime water			+	+	+
Linseed oil		techn. grade	+	+	+
Lithium bromide			+	+	+
Magnesium carbonate	MgCO ₃ , MgCO ₃ .3H ₂ O, MgCO ₃ .5H ₂ O				
	Magnesite		+	+	+
Magnesium chloride, aqueous	MgCl ₂ , MgCl ₂ .6H ₂ O		+	+	+
Magnesium hydroxide (See Note 5)	Mg(OH) ₂		+	+	+
Magnesium iodide	Mg I ₂	any	+	+	+
Magnesium sulphate (Epsom salts), aqueous	MgSO ₄ , MgSO ₄ .H ₂ O, MgSO ₄ 7H ₂ O	up to 100%	+	+	+
Maleic acid, aqueous	HO ₂ CCH=CHCO ₂ H		+	+	+
Malic acid, aqueous	HO ₂ CCH ₂ CH(OH)CO ₂ H	50%	+	+	+
Manganese sulphate	MnSO ₄		+		
Margarine			+	+	
Mash		as supplied	+	+	
Mayonnaise			+		
Mercury	Hg		+	+	
Metal soaps			+	+	+
Methacrylic acid	H ₂ C=C(CH ₃)CO ₂ H		+	+	
Methanol	CH ₃ OH	techn. grade	+	+	
Methoxybutanol	CH ₃ O(CH ₂) ₄ OH		+		
Methoxybutyl acetate (@Butoxyl)	CH ₃ CO ₂ (CH ₂) ₄ OCH ₃		+		
Methylamine, aqueous	CH ₃ NH ₂	32%	+		
Methylene chloride (dichloromethane)	CH ₂ Cl ₂		-	-	-
Methylisobutyl ketone	(CH ₃) ₂ CH.Ch ₂ .COCH ₃	techn. grade	+		
Methyl acetate (Acetic acid methyl ester)	CH ₃ CO ₂ CH ₃	techn. grade	+	+	
Methyl alcohol	CH ₃ OH		+	+	

Substance	Formula	Concentration	Chemical Resistance of Vulcathene		
			20°C	60°C	80°C
Methyl benzene	$C_6H_5CH_3$		-	-	
Methyl bromide (Bromomethane), gaseous	CH_3Br	techn. grade	-	-	-
Methyl chloride (Chloromethane), gaseous	CH_3Cl	techn. grade	-	-	-
Methyl cyclohexane	$C_6H_{11}CH_3$		-	-	-
Methyl ethyl ketone	$C_2H_5.CO.CH_3$	techn. grade	+		
Methyl glycol			+	+	
4-Methyl pentanol-2	$(CH_3)_2CHCH_2CH(OH)CH_3$		+		
Methyl propyl ketone	$CH_3COCH_2CH_2CH_3$		+		
Methyl salicylate (Salicyclic acid methyl ester)	$2-(HO)C_6H_4CO_2CH_3$		+		
Methyl sulphuric acid	CH_3OSO_2OH	50%	+	+	
Milk			+	+	+
Mineral water			+	+	+
Molasses			+	+	
Molasses wort			+	+	
Monochloroacetic acid	$ClCH_2CO_2H$		+	+	
Monochloroacetic acid ethyl ester	$ClCH_2CO_2C_2H_5$		+	+	
Monochloroacetic acid methyl ester	$ClCH_2CO_2CH_3$		+	+	
Morpholine	$NHCH_2CH_2OCH_2CH_2$		+	+	
Mustard			+	+	+
Must			+	+	+
Nail varnish remover	(see note 4)				
Nickel chloride	$NiCl_2, NiCl_2 \cdot 6H_2O$		+	+	+
Nickel nitrate	$Ni(NO_3)_2 \cdot 6H_2O$		+	+	+
Nickel sulphate, aqueous	$NiSO_4, NiSO_4 \cdot 6H_2O$		+	+	+
Nicotinic acid	C_6H_4NCOOH	any	+	+	+
Nitric acid	HNO_3	25%	+	-	-
2,2',2''-Nitrilotriethanol (Triethanolamine),	$(HOCH_2CH_2)_3N$		+	+	
Nitrobenzene	$C_6H_5NO_2$		+	+	
Nitrocellulose			+		
o-Nitrotoluene	$CH_3 \cdot C_6H_4NO_2$		+	-	
Nonyl alcohol (nonanol)	$CH_3(CH_2)_8OH$		+		
Nut oil			+		
Octyl cresol	$CH_3(CH_2)_7C_6H_3(CH_2)OH$	techn. grade		-	
Oleic acid	$CH_3(CH_2)_7CH:CH(CH_2)_7COOH,$ 9-Octadecanoic acid		+	-	
Olive oil			+	+	+
Orange juice			+	+	+
Oxalic acid, aqueous	$(COOH)_2 \cdot 2H_2O$	any	+	+	+
Oxygen	O_2		+	+	
Ozone	O_3	50 ppm	+	*	
Palmitic acid	$CH_3 \cdot (CH_2)_{14} \cdot COOH$		+	+	
Palmityl alcohol			+	+	
Palm nut oil			+	+	
Paraformaldehyde	$(CH_2O)_n$		+		
Peanut oil		techn. grade	+	+	
Pentanol	$CH_3(CH_2)_4OH$		+		
Perchloric acid, aqueous	$HClO_4$	20%	+	+	
Phenol (Carbolic acid)	C_6H_5OH		+	+	
Phenyl ethyl alcohol	$C_6H_5CH_2CH_2OH$		+		

Classification:

+ = Resistant

* = Likely to be resistant

- = Not resistant

□ = No data available

Substance	Formula	Concentration	Chemical Resistance of Vulcathene		
			20°C	60°C	80°C
Phenyl hydrazine hydrochloride	C ₆ H ₅ NHNH ₂ .HCl		+		
Phenyl sulphonate (Sodium dodecyl benzene sulphonate)	C ₁₂ H ₂₅ C ₆ H ₄ SO ₃ Na		+	+	
Phosgene, liquid		100%	-		
Phosphoric acid, aqueous	H ₃ PO ₄	50%	+	+	+
Phosphoric acid, aqueous		80%...95%	+		
Phosphorus oxychloride	POCl ₃		+		
Phosphorus pentoxide	P ₂ O ₅	100%	+		
Phosphorus trichloride	PCl ₃		+		
Phthalic acid, aqueous	C ₆ H ₄ -1, 2-(CO ₂ H) ₂	50%	+	+	
Phthalic acid dibutyl ester (Dibutyl phthalate)	C ₆ H ₄ (COOC ₄ H ₉) ₂	techn. grade	+		
Picric acid, aqueous	(O ₂ N) ₃ C ₆ H ₂ OH	1%	+		
Pineapple juice			+	+	
Pine needle oil			+	+	
Polyglycols			+	+	
Potassium aluminium sulphate, aqueous	KAl(SO ₄) ₂ . 12H ₂ O	any	+	+	+
Potassium bicarbonate, aqueous	KHCO ₂	saturated	+	+	+
Potassium bicromate, aqueous	K ₂ Cr ₂ O ₇	any	+	+	+
Potassium bisulphate, aqueous	KHSO ₄	saturated	+	+	+
Potassium <i>meta</i> bisulphate, aqueous	K ₂ S ₂ O ₅	saturated	+	+	+
Potassium borate, aqueous	KBO ₂	1%	+	+	+
Potassium bromate, aqueous	KBrO ₃	up to 10%	+	+	+
Potassium bromide, aqueous	KBr	any	+	+	+
Potassium carbonate	K ₂ CO ₃ , K ₂ CO ₃ . 1½H ₂ O, Potash	any	+	+	+
Potassium chlorate, aqueous	KClO ₃	any	+	+	+
Potassium chloride, aqueous	KCl	any	+	+	+
Potassium chromate, aqueous	K ₂ CrO ₄	40%	+	+	+
Potassium chromic sulphate (Chrome alum), aqueous	KCr(SO ₄) ₂ . 12H ₂ O		+	+	+
Potassium cyanide, aqueous	KCN	any	+	+	+
Potassium dichromate, aqueous	K ₂ Cr ₂ O ₇	saturated	+	+	+
Potassium ferricyanide, aqueous	K ₃ Fe(CN) ₆	any	+	+	+
Potassium ferrocyanide, aqueous	K ₄ Fe(CN) ₆ . 3H ₂ O	saturated	+	+	+
Potassium fluoride, aqueous	KF	any	+	+	+
Potassium hexacyanoferrate, aqueous	K ₃ Fe(CN) ₆ or K ₄ Fe(CN) ₆ . 3H ₂ O	any	+	+	+
Potassium hydrogen carbonate, aqueous	KHCO ₃	saturated	+	+	+
Potassium hydrogen sulphate, aqueous	KHSO ₄	saturated	+	+	+
Potassium hydrogen sulphate, aqueous	K ₂ S ₂ O ₅	saturated	+	+	+
Potassium hydroxide, aqueous	KOH	any	+	+	+
Potassium iodide, aqueous	KI	any	+	+	+
Potassium nitrate, aqueous	KNO ₃	any	+	+	+
Potassium perchlorate, aqueous	KClO ₄	1%	+	+	
Potassium permanganate, aqueous	KMnO ₄	up to 6%	+		
Potassium persulphate, aqueous	K ₂ S ₂ O ₈	any	+	+	+
Potassium phosphate, aqueous	K ₂ PO ₄	saturated	+	+	+
Potassium sulphate, aqueous	K ₂ SO ₄	any	+	+	+
Potassium sulphide, aqueous	K ₂ S	saturated	+	+	
Potassium sulphite, aqueous	K ₂ SO ₃ .2H ₂ O	saturated	+	+	+
Potassium thiosulphate, aqueous	K ₂ S ₂ O ₃ .H ₂ O	saturated	+	+	+
Propanol (Propyl alcohol)	CH ₃ CH ₂ CHOH	techn. grade	+	+	
i-Propanol (i-Propyl alcohol)	(CH ₃) ₂ CHOH	techn. grade	+	+	
n-Propanol (n-Propyl alcohol)	CH ₃ CH ₂ CH ₂ OH	techn. grade	+	+	
Propargyl alcohol, aqueous	HC≡CCH ₂ OH	7%	+	+	

Classification:

⊕ = Resistant

* = Likely to be resistant

- = Not resistant

□ = No data available

Substance	Formula	Concentration	Chemical Resistance of Vulcathene		
			20°C	60°C	80°C
Propionic acid, aqueous	CH ₃ CH ₂ COOH	any	+	+	
Propylene dichloride	CH ₂ Cl CH Cl	100%	-	-	-
Propylene glycol	CH ₂ (CH ₂ OH) ₂ , Propane-1, 2-diol, CH ₃ CH(OH).CH ₂ OH, Propane-1,3-diol		+	+	+
Pyridine	C ₅ H ₅ N		*	*	
Quinine	C ₂₀ H ₂₄ N ₂ O ₂		+	+	
Rubber dispersions (latex)			+	+	
Salicylic acid	HOC ₆ H ₄ COOH		+	+	
Salt brines		saturated	+	+	
Sauerkraut (pickled cabbage)			+	+	+
Sea water			+	+	+
Silicic acid, aqueous	H ₂ SiO ₃	any	+	+	
Silicone emulsion		as supplied commercially			
Silicone oil		technical	+	+	+
Silver nitrate, aqueous	Ag NO ₃	any	+	+	+
Soap solution, aqueous		any	+	+	+
Soda (Sodium carbonate), aqueous		any	+	+	+
Sodium acetate, aqueous	CH ₃ .COONa, CH ₃ .COONa.3H ₂ O	any	+	+	+
Sodium aluminium sulphate	Na Al(SO ₄) ₂ .12H ₂ O		+	+	+
Sodium benzoate, aqueous	C ₆ H ₅ . COONa	any	+	+	+
Sodium bicarbonate, aqueous	NaHCO ₃	saturated	+	+	+
Sodium bisulphate, aqueous	NaHSO ₄ . H ₂ O	saturated	+	+	+
Sodium bisulphite, aqueous	Na ₂ S ₂ O ₅	saturated	+	+	+
Sodium borate	Na ₂ B ₄ O ₇		+	+	+
Sodium bromide	NaBr		+	+	+
Sodium carbonate, aqueous	Na ₂ CO ₃ , Na ₂ CO ₃ 10H ₂ O, Soda	any	+	+	+
Sodium chlorate, aqueous	NaClO ₃	saturated	+	+	
Sodium chloride, aqueous	NaCl	any	+	+	+
Sodium chlorite, aqueous	NaClO ₂	50%	+	+	
Sodium chromate	Na ₂ CrO ₄		+	+	+
Sodium cyanide	NaCN		+	+	+
Sodium dichromate	Na ₂ Cr ₂ O ₇ . 2H ₂ O		+	+	+
Sodium dodecylbenzenesulphonate	C ₁₂ H ₂₅ C ₆ H ₄ SO ₃ Na		+	+	+
Sodium ferricyanide	Na ₃ Fe(CN) ₆ H ₂ O		+	+	+
Sodium fluoride	NaF		+	+	+
Sodium hexacyanoferrate (III) (sodium ferrocyanide), aqueous	Na ₃ Fe(CN) ₆ . H ₂ O		+	+	+
Sodium hexacyanoferrate (II)	Na ₄ Fe(CN) ₆ . 3H ₂ O		+	+	+
Sodium hexametaphosphate, aqueous	(NaPO ₃) ₆	saturated	+	+	+
Sodium hydrogen carbonate, aqueous	Na HCO ₃		+	+	+
Sodium hydrogen sulphate, aqueous	NaHSO ₄	saturated	+	+	+
Sodium hydrogen sulphite, aqueous	NaHSO ₃	saturated	+	+	+
Sodium hydroxide, aqueous	NaOH	saturated	+	+	+
Sodium hydroxide, solid			+	+	
Sodium hypochlorite, aqueous with ≥ 5% active chlorine	NaOCl		-	-	-
Sodium nitrate, aqueous	NaNO ₃	any	+	+	+
Sodium perborate, aqueous	NaBO ₃ . 4H ₂ O				
Sodium phosphate(s)	Na ₂ HPO ₄ , NaPO ₄ . 12H ₂ O NaH ₂ PO ₄ , Na ₄ P ₂ O ₇ . 10H ₂ O	any	+	+	+
Sodium silicate, aqueous	A waterglass, NaO. x SiO ₂ where x = 3 to 5	any	+	+	+
Sodium sulphate, aqueous	Na ₂ SO ₄ , Na ₂ SO ₄ . 10H ₂ O, Glauber's salt	cold saturated	+	+	+
Sodium sulphide, aqueous		saturated	+	+	

Substance	Formula	Concentration	Chemical Resistance of Vulcathene		
			20°C	60°C	80°C
Sodium sulphite, aqueous	Na ₂ SO ₃ , Na ₂ SO ₃ ·9H ₂ O	40%	+	+	+
Sodium tetraborate (Borax), aqueous	Na ₂ B ₄ O ₇ ·10H ₂ O, Borax	saturated	+	+	+
Sodium thiosulphate, aqueous	Na ₂ S ₂ O ₃ , Na ₂ S ₂ O ₃ ·5H ₂ O	saturated	+	+	+
Soft soap			+	+	+
Soya bean oil			+		
Spermaceti			+		
Stannic chloride, aqueous	SnCl ₄ , SnCl ₄ ·5H ₂ O	saturated	+	+	+
Stannous chloride, aqueous	SnCl ₂ , SnCl ₂ ·2H ₂ O	any	+	+	+
Starch, aqueous	C ₆ H ₁₀ O ₅	any	+	+	+
Starch gum		18%	+	+	+
Starch syrup			+	+	+
Stearic acid (See Note 2)	CH ₃ ·(CH ₂) ₁₆ ·COOH		+		
Styrene	C ₆ H ₅ CHCH ₂		+		
Succinic acid, aqueous	HOOC(CH ₂) ₂ COOH	50%	+	+	
Sugar syrup			+	+	+
Sulphuric acid, aqueous	H ₂ SO ₄	up to 50%	+	+	
Sulphuric acid, aqueous		80%	+	*	
Sulphuric acid, aqueous		98%	*	-	
Sulphur (See Note 2)	S ₈		+	+	+
Sulphurous acid	H ₂ SO ₃		+	+	
Sulphuryl chloride (sulphonyl chloride)	SO ₂ Cl ₂	techn. grade	-	-	-
Sulphur dioxide, aqueous	SO ₂	any	+	+	
Sulphur dioxide, gaseous			+	+	
Sulphur trioxide	SO ₃		-	-	-
Tallow		techn. grade	+	+	
Tannic acid (tannin), aqueous		10%	+	+	
Tanning extracts, vegetable		as supplied	+	*	
Tartaric acid, aqueous	(CHOH·COOH) ₂	any	+	+	
Tetrachloroethane	CHCl ₂ ·CHCl ₂		-	-	-
Tetrachloromethane (Carbon tetrachloride)	CCl ₄	techn. grade	-	-	-
Tetrahydrofuran	CH ₂ (CH ₂)·CH ₂ O └──────────┘	techn. grade		-	-
Tetrahydronaphtalene	C ₆ H ₄ CH ₂ CH ₂ CH ₂ CH ₂ └──────────┘	techn. grade	-	-	-
Thioglycolic acid	HSCH ₂ CO ₂ H		+	+	
Thionyl chloride	SOCl ₂		-	-	-
Thiophene	S(CH) ₃ CH └────────┘			-	-
Toluene	C ₆ H ₅ ·CH ₃	techn. grade	-	-	-
Toluic acids (methyl benzoic acids)	CH ₃ ·C ₆ H ₄ COOH	saturated	*		
Tomato juice			+	+	+
Tributyl phosphate	(C ₄ H ₉) ₃ PO ₄		+	+	
Trichloroacetaldehyde (chloral)	CCl ₃ CHO	techn. grade	+	+	
Trichloroacetic acid	CCl ₃ COOH	techn. grade	+		
Trichloroethylene	CHCl: CCl ₂	techn. grade	-	-	-
Tricesyl phosphate	(CH ₃ ·C ₆ H ₄) ₃ PO ₄		+		
Triethanolamine	(HO CH ₂ CH ₂) ₃ N		+		
Triethanolamine (2,2'2"- Nitrioltriethanol), aqueous		saturated	+		
Triethylene glycol	HOCH ₂ CH ₂ OCH ₂ CH ₂ OCH ₂ CH ₂ OH		+	+	

Substance	Formula	Concentration	Chemical Resistance of Vulcathene		
			20°C	60°C	80°C
Trioctyl phosphate	$(C_8H_{17})_3PO_4$		+		
Trisodium phosphate	$Na_3PO_4 \cdot 12H_2O$		+	+	+
Tri-β-chloroethylphosphate	$(ClCH_2CH_2O)_3PO$		+		
Turpentine oil		techn. grade	-	-	-
*Tween 20 and 80			+	+	
Urea, aqueous	$NH_2 \cdot CO \cdot NH_2$	up to 33%	+	+	+
Uric acid (See note 2)	$C_5H_4N_4O_3$		+		
Urine			+	+	
Vaseline		techn. grade	+	*	
Vinegar (wine vinegar)		as supplied commercially	+	+	
Vinylidene chloride (1,1 - Dichloroethylene)	CH_2CCl_2	techn. grade	-	-	-
Vinyl acetate	$CH_3COO \cdot CH_2$		+	*	
Viscose spinning solutions			+	+	
Vitamin C			+		
Vitamin preparations, dry (powder)			+		
Walnut oil			+		
Washing up liquids		usual	+	+	
Water, distilled	H_2O		+	+	+
Whey			+	+	+
Whisky			+		
White spirit		techn. grade	-	-	-
Wine			+	+	
Wine vinegar (table vinegar)		as supplied	+		
Xylene	$C_6H_4(CH_3)_2$		-	-	-
Yeast			+		
Zinc carbonate (See note 5)	$ZnCO_3 \cdot 2ZnO \cdot 3H_2O$		+	+	+
Zinc chloride, aqueous	$ZnCl_2$	any	+	+	
Zinc oxide (See note 5)	ZnO		+	+	+
Zinc stearate	$[CH_3(CH_2)_{16}CO_2]_2Zn$		+	+	+
Zinc sulphate, aqueous	$ZnSO_4 \cdot 7H_2O$	any	+	+	+