

Chemical Resistance of Velstone Laboratory Tops

There are thousands of known chemicals. It is not practical to assess chemical resistance of Velstone Laboratory Tops against all chemicals. It is recommended to test a piece of Velstone for a specific use. The reactivity with chemicals depends upon the concentration of the chemical, temperature of the chemical and the exposure time. The following is a list of some substances commonly encountered in school, college laboratories and in households. The effect they may have on Velstone Laboratory Tops in case of accidental spillage or short time exposure is listed.

The effect of the chemicals in lists A, B, & C can be removed and the surface appearance restored by cleaning with household cleaners and water or abrasive cleaning powder (AJAX or similar) and Scotch-Brite pad.

The effect of the chemicals in list D can be removed and the surface appearance restored by sanding.

LIST A: Minimal or No effect.

acetylsalicylic acid	dutch metal leaf	phenolphthalein
acid alcohol	ethanamide	pheoxyethanoic acid
agar	ethanedioic acid	phenylammonium chloride
alkylbenzene hydrocarbon	ethanediol (1,2-)	phenylbenzoate(prepared)
aluminium powder coarse	ethanol	phenylethanol (2-)
aluminium powder fine	ethanoyl chloride	phenylethanone
aluminium ammonium sulphate	ethoxyethane	phenylethene
aluminium carbonate	ethoxyethanol (2-)	phenylhydroxybenzoate-2
aluminium chloride anhydrous	ethyl benzoate	phenylmethanol
aluminium chloride-6-water	ethyl ethanoate	phenylpropanal(3)
aluminium nitrate-9-water	ethyl methanoate	phenylpropanoic acid (3-)
aluminium oxide - calcined	ethylaminobenzoate 4	phosphoric acid crystals
aluminium potassium sulphate	ethylammonium hydrochloride	phosphorus yellow
aluminium sulphate-n6-water	fehlings solution no.1	phosphorus pentachloride
amberlyst resin acidic	fehlings solution no.2	polyvinylalcohol
amberlyst resin basic	glucose	potassium bromate (v)
aminopenicillanic acid(6)	guar gum	potassium bromide
ammonium bromide	heptane	potassium carbonate
ammonium carbonate powder	hexane	potassium chlorate (v) ar
ammonium cerium (iv) sulphate	hexanol-1	potassium chloride
ammonium chloride	hexene-1	potassium dihydrogen phosphate
ammonium copper (ii) chloride	hydrogen-gas	potassium ethandioate
ammonium dichromate (vi)	hydrogen peroxide	potassium ethanoate
ammonium ethanedioate	hydrogen sulphide-aqueous	potassium hydrogen carbonate
ammonium ethanoate	hydroxibenzoic acid-2	potassium hydrogen ethanedioate
ammonium iodide	hydroxybutanedioic acid (2)	potassium hydrogen phosphate
ammonium iron (ii) sulphate-6-water	hydroxy-dinitrobenzoic acid (2-3,5)	potassium iodate (v)
ammonium iron (iii) sulphate	hydroxyl ammonium chloride	potassium iodate (vii)
ammonium metavanadate	hydroxypropane 1,2,3-	potassium iodide
ammonium methanoate	indicator papers-blue	potassium manganate (vii)
ammonium molybdate	indicator papers-la	potassium nitrate
ammonium nickel (ii) sulphate	indicator papers-red	potassium nitrite
ammonium nitrate	indicator papers-si	potassium peroxodisulphate (vi)
ammonium peroxodisulphate (vi)	indicator papers-uni	potassium sodium tartrate
ammonium sulphate	iodine soln in ki	potassium sulphate
ammonium sulphide	iodine water	potassium thiocyanate
ammonium thiocyanate	iodobutane	propandiol-1-2
anti-bumping granules	iodoethane	propanol-1
aspartic acid	iodomethane	propanol-2

aspirin tablets	iodomethylpropane (2-2)	propanone
barium	iron filings coarse	propantriol-1-2,3
barium bromide	iron filings fine	pyrrole
barium carbonate	iron reduced by hydrogen	salicylaldehyde
barium chloride-2-water	iron (ii) carbonate	silica gell
barium diphenylamine sulphonate (4)	iron (ii) ethanedioate	silicon fused
barium hydroxide-8-water	iron (ii) ethanoate	silicon (iv) chloride
barium nitrate	iron (ii) sulphate	silicon (iv) oxide
barium peroxide	iron (ii) sulphide	silver foil
barium sulphate	iron (ii) chloride	silver chloride
barium thiosulphate	iron (ii) chloride-anhydrous	silver nitrate
benzene	iron (ii) nitrate	soap
benzenedicarboxylic acid 1,2	iron (ii) oxide	soda lime large
benzenedicarboxylic 1,2	iron (ii) sulphate-monsels	soda lime small
benzenediol -1-4	iron (ii) sulphate-technical	sodium benzene caboxylate
benzenetriol 1,2,3	iron nail	sodium benzene sulphonate
benzoic acid	iron sulphate tablets	sodium bismuthate
bismuth (iii) chloride	ketchup	sodium bromate
bismuth nitrate	l-ascorbic acid	sodium bromide
blood	lead foil-0.15mm	sodium carbonate a.r.
boric acid	lead shot	sodium carbonate-10 water
bromosuccinamide	lead (ii) 2,3-hydroxybutanedioate	sodium carbonate-anhydrous
buffer tablets ph 4	lead (ii) bromide	sodium chloride
buffer tablets ph 7	lead (ii) carbonate	sodium chloride-rock salt
buffer tablets ph 9	lead (ii) chloride	sodium cobalt nitrite
butandioic acid	lead (ii) ethanoate	sodium dihydrogen
butanoic acid	lead (ii) nitrate	sodium diphenylamine sulphonate (4)
butanol-1-	lead (ii) oxide	sodium ethanedioate
butanol-2-	lead (ii) sulphide	sodium ethanoate-3water
butanone	lead (iv) oxide	sodium ethanoate anhydrous
cadmium sulphate	lead tetroxide (tri)	sodium ethanoate -fused
caffeine	limonene	sodium fluoride
calcium turnings	liquid paraffin	sodium hydrogen carbonate
calcium bromide	lithium chloride	sodium hydrogen orthophosphate
calcium carbide	litmus solid	sodium hydrogen sulphate a.r.
calcium carbonate	litmus solution	sodium hydrogen sulphate-1-water
calcium chloride	lycopodium powder	sodium hydrogen sulphite
calcium chloride-6-water	magnesium powder	sodium hydroxybenzoate (2)
calcium ethanedioate	magnesium ribbon	sodium iodate
calcium ethanoate	magnesium carbonate-light	sodium iodide
calcium flouride	magnesium chloride	sodium meta bisulphate
calcium hydride 85.9%	magnesium chloride-anhydrous	sodium methanoate
calcium hydroxide	magnesium hydroxide	sodium nitrate
calcium methanoate	magnesium nitrate	sodium nitrite
calcium nitrate-4-water	magnesium oxide heavy	sodium nitroprusside
calcium oxide	magnesium oxide light	sodium sesqui-carbonate
calcium sulphate-2-water	magnesium sulphate	sodium silicate
calcium sulphide	magnesium sulphate	sodium stearate
camphor	manganese (iv) oxide	sodium sulphate anhydrous
carbon disulphide	manganese carbonate	sodium sulphate -10-water
castor oil	manganese chloride	sodium sulphide
cedarwood oil	manganese ethandioate	sodium sulphite anhydrous
cement	manganese ethanoate	sodium sulphite-7-water
chloroacetic acid	manganese sulphate	sodium tetra borate
chromium (iii) chloride	marble chips large	sodium tetraoxodisulphate
chromium (iii) potassium sulphate	marble chips small	sodium thiosulphate
chromium (iii) sulphate	mercury (ii) chloride	soy sauce
cigarette (Nicotine)	mercury (ii) nitrate	starch
cobalt (ii) chloride-6-water	mercury (ii) oxide	steel
cobalt sulphate-7-water	methanol	strontium carbonate
coffee	methyl benzoate	strontium chloride

copper foil 0.1 mm	methyl hydroxybenzoate	strontium nitrate
copper powder	methylaminophenolsulphate 4	sucrose
copper turnings	methylammonium chloride	sugar
copper (i) chloride	methylbenzene	sulphur roll
copper (i) oxide	methylbutane(2-)	sulphur dioxide-aqueous
copper (ii) bromide	methylbutanol (2-2)	sulphur dioxide-gas
copper (ii) carbonate	methylbutylethanoate (3-)	talcum
copper (ii) chloride-2-water	methylmethanoate	tea
copper (ii) chromate (vi)	methylpropanol(2-1)	tetra chloro methane
copper (ii) ethanedioate	methylpropanol(2-2)	tetra ethyl orthosilicate
copper (ii) ethanoate	milk	thiourea
copper (ii) nitrate	mineral oil	thymol
copper (ii) oxide-powder	molybdenum trioxide	tin foil
copper (ii) oxide-wire form	mustard	tin granulated
copper (ii) sulphate-5-water	naphthol (2-)	tin (ii) chloride
copper ore	needles hypodermic	tin (ii) oxide
crown ether 18-6	nickel metal foil	tin (iv) chloride anhyd.
cyclohexane	nickel (ii) carbonate	tin (iv)chloride-5-water
cyclohexanol	nickel (ii) chloride	tin (iv) oxide
cyclohexene	nickel (ii) methanoate	tolunesulphonicacid-na salt
d.n.p. soln (2,4)	nickel (ii) sulphate	trichloro acetic acid
decanediol chloride	octanoic acid	triethanolamine
devarda's alloy	octanol-1	tungsten metal powder
diaminoethane (1,2,-)	octanol 2	universal indicator
diaminoethanetetra acetic acid	oleic acid	universal indicator f.r.
diaminohexane (1,6-)	oxygen gas	urea
dibutylbenzene-1'2-dicarboxylate	paraffin	vanadium pentoxide
dichloroethane	pentanal	vaseline
dichloroethanoic acid	pentane	vinegar
dichloromethane	pentanol-1	water
dichlorophenolindophenol	pentanol-2	yeast dried
didodecanoylperoxide	pentanone-3	zinc foil
diethylaminomethylcoumarin (7-4)	perspex	zinc granulated
diethylethandioate	petroleum crude	zinc powder
dihydroxybenzene (1,2-)	petroleum ether 40/60	zinc bromide
dihydroxybutanedioic acid (2,3)	petroleum ether 80/100	zinc carbonate
dimethyldichlorosilane	petroleum jelly	zinc chloride
dimethylethandioate	petroleum unleaded	zinc ethanoate
dimethylglyoxime	ph10 buffer	zinc nitrate
dinitrophenylhydrazine (2,4-)	ph4 buffer	zinc oxide
diphenylamine	ph7 buffer	zinc sulphate
dodecan-1-ol	phenantroline (1,10)	zinc sulphide

LIST B: Superficial surface stain or chalking or whitening.

acid blue 40	congo red	phosphoric acid (v)
alkaline 2-naphthol	fast sulphon black f	phosphorus (iii) chloride
aminobenzoic acid (2-)	fluorescein sodium salt	potassium chromate (vi)
aminobutandioic acid	food colouring	potassium dichromate (vi)
aminoethanoic acid	graphite powder	potassium hexacyanoferrate (ii)
amino-hydroxybenzene (4-1)	hydroiodic acid	potassium hexacyanoferrate (iii)
aminophthaloylhydrazine (3-)	iodine	procion red mx5b
ammonia/ammonium chloride buffer	methnoic acid	rhodamine b
bromine in cyclohexane	methyl orange	sodium chromate
bromine in trichloroethane	methyl orange-screened solution	sodium dichromate
bromine water	methyl red	sodium hypochlorite solution
bromomethylpropane (2-2)	methylene blue	sulphanilic acid
bromophenol blue	ninhydrin	trichloroethane (1,1,1,)
bromothymol blue	patton & reeders reagent	trichloroethylene
charcoal activated	phenol red	trichloromethane
chlorine-gas	phenylammonium chloride stain	

LIST C: Some effect.

aminosulphonic acid	dimethylbenzene	nitric acid
ammonia solution	direct red 23	pencil lead
benzaldehyde	disperse yellow 7	phenylalanine
benzenediamine 1,3	durazol red 2b	phenylamine
benzenediamine 1,4	erichrome black	phosphorous acid crystals
benzoyl chloride	ethanal	phosphorus red
benzyl chloride	ethanoic acid	phosphorus (v) oxide
bromobenzene	ethanoic anhydride	potassium metal
bromobutane (1-)	ethyl amine	propanal
bromobutane (2-)	hair dyes	propandioic acid
bromocresol green	hydrochloric acid	propionic acid
butanal	ink	sodium metal
butylamine	lipstick	sodium hydroxide flake
chlorine-aqueous	lithium metal	sodium hydroxide pearl
chloromethyl propane (2-2)	mercaptoacetic acid	sodium hydroxide pellet
cresol-m	methanal	sodium hydroxide powder
cresol-p	methylmethylpropenoate (2)	sulphuric acid
cyclohexanone	methylpentanone (4-2)	triethylamine
diethylamine	nail polish remover	urine

LIST D: Considerable Effect.

bromine	nitrobenzene	potassium hydroxide
chlorobenzene	nitrophenol (2-)	sulphur dichloride (di)
chlorbutane (1-)	nitrophenol (4-)	thionyl chloride
chlorbutane (2-)	phenol	

Fire Properties

Velstone has been awarded the Certificate of Royal Institute of Health & Hygiene annually since 1994.

Velstone is one of the very few Solid surface brands to hold both BS476 PART 6 Class 0 and Part 7 Class 1 Fire Ratings Certificate.

If you wish to carry out your own tests for specific Chemicals please do not hesitate to contact us and we will send you an appropriate size Velstone sample for testing.

Notes:

The effect of chemicals is normally determined by a combination of visual Inspection, change in weight, reduction in hardness and changes in flexural properties. The effect of chemicals can be, none, superficial on the surface (colour change, stain, whitening or chalking), deeper penetration and softening. The damage is considered permanent if the material has softened or flexural properties have diminished or the surface of the Laboratory top can not be restored. The ratings are for accidental spillage or short period of exposure or contact. It is recommended that the spillage should be cleaned immediately using recommended methods and long term contact be avoided.