

Chemical resistance CPX Containers and Tanks Based on ISO/TR 7474: 1981

CPX Containers and Tanks are manufactured from PE-polyethylene with exceptional chemical resistance and durability.

Declaration is valid at temperatures 20 and 60°C in normal atmospheric pressure without external load or stress.

Contact Cipax for technical advice about chemicals missing in list or for formulations of different chemicals.

DEFINITIONS

S = Satisfactory

L=Limited

U=Unsatisfactory

X=Not specified

Sat. Sol.	saturated aqueous Solution, prepared at 20°C
Sol.	aqueous Solution at a concentration, higher than 10%, but not saturated
Dil. Sol.	Dilute aqueous solution at a concentration, equal to, or lower than, 10%
Work Sol.	aqueous Solution having the usual concentration for industrial use

CHEMICAL/PRODUCT	CONCENTRATION	TEMPERATURE	
		20°C	60°C
Kolumn1	Kolumn3	Kolumn9	Kolumn10
acetaldehyde	100%	L	U
acetic acid	10%	S	S
acetic acid	60%	S	L
acetic acid, glacial	> 96 %	L	U
acetic anhydride	100%	L	U
acetone	100%	L	U
acrylnitrile		S	S
acetylsilicacid		S	S
adipic acid	Sat. Sol.	S	S
after shave		U	U
aliphatic hydrocarbons		L	U
allyl acetate		S	L
allyl alcohol	96%	L	U
allyl chloride		L	U
aluminium chloride	Sat. Sol.	S	S
aluminium fluoride	Sat. Sol.	S	S
aluminium hydroxide	Sat. Sol.	S	S
aluminium nitrate	Sat. Sol.	S	S
aluminium oxychloride	Sat. Sol.	S	S
al/potassium sulphate	Sat. Sol.	S	S
aluminium sulphate	Sat. Sol.	S	S
alums	Sol.	S	S
aminobenzoic acid		S	S
ammonia, dry gas	100%	S	S
ammonia, liquid	100%	L	L
ammonia, aqueous	Dil. Sol.	S	S
ammonium acetate		S	S
ammonium carbonate	Sat. Sol.	S	S
ammonium chloride	Sat. Sol.	S	S
ammonium fluoride	Sol.	S	S
ammonium hexafluoro silicate	Sat. Sol.	S	S
ammonium hydrogen carbonate	Sat. Sol.	S	S
ammonium hydroxide	10%	S	S
ammonium hydroxide	30%	S	S
ammonium metaphosphate	Sat. Sol.	S	S
ammonium nitrate	Sat. Sol.	S	S

CHEMICAL/PRODUCT	CONCENTRATION	TEMPERATURE	
		20°C	60°C
ammonium oxalate	Sat. Sol.	S	S
ammonium phosphate	Sat. Sol.	S	S
ammonium persulphate	Sat. Sol.	S	S
ammonium sulphate	Sat. Sol.	S	S
ammonium sulphide	Sat. Sol.	S	S
ammonium thiocyanate	Sat. Sol.	S	S
amyl acetate	100%	U	U
amyl alcohol	100%	L	L
amyl chloride	100%	U	U
amyl phthalate		L	L
aniline	100%	U	U
anilinchlorohydrate		L	U
antimony III chloride	Sat. Sol.	S	S
antimony trichloride	Sol.	S	S
apple juice	Sol.	S	S
aqua regia	(HC1/HN03=3/1)	U	U
aromatic hydrocarbons		U	U
arsenic acid	Sat. Sol.	S	S
asorbic acid	10%	S	S
barium bromide	Sat. Sol.	S	S
barium carbonate	Sat. Sol.	S	S
barium chloride	Sat. Sol.	S	S
barium hydroxide	Sat. Sol.	S	S
barium sulphate	Sat. Sol.	S	S
barium sulphide	Sat. Sol.	S	S
beer		S	S
benzaldehyde	100%	L	U
benzene	100%	U	U
benzoic acid	Sat. Sol.	S	S
benzoylchloride		S	L
benzyl alcohol		S	L
benzylsulphonic acid	10%	S	S
bismuth carbonate	Sat. Sol.	S	S
bitumen		S	L
bleach lye	10%	S	S
borax	Sat. Sol.	S	S
boric acid	Sat. Sol.	S	S
boron trifluoride		S	S
brake fluid		L	U
brine		S	S
bromine, dry gas	100%	U	U
bromine, liquid	100%	U	U
bromoform	100%	U	U
butandiol	10%	S	S
butandiol	60%	S	S
butandiol	100%	S	S
butanol	100%	S	L
butter		S	S
butyl acetate	100%	S	L
butyl alcohol	100%	S	S
butyl chloride		S	X
butylene glycol	10%	S	S
butylene glycol	60%	S	S
butylene glycol	100%	S	S
butyric acid	100%	L	L
calcium arsenate		S	S
calcium benzoate		S	S
calcium bisulphide		S	S
calcium bromate	10%	S	S
calcium bromide	Sat. Sol.	S	S

CHEMICAL/PRODUCT	CONCENTRATION	TEMPERATURE	
		20°C	60°C
calcium carbonate	Sat. Sol.	S	S
calcium chlorate	Sat. Sol.	S	S
calcium chloride	Sat. Sol.	S	S
calcium chromate	40%	S	S
calcium cyanide		S	S
calcium hydrosulphide	Sol.	S	S
calcium hydroxide	Sat. Sol.	S	S
calcium hypochloride	Sol.	S	S
calcium nitrate	Sat. Sol.	S	S
calcium oxide	Sat. Sol.	S	S
calcium perchlorate	1%	S	X
calcium permanganate	20%	S	S
calcium persulphate	Sol.	S	S
calcium sulphate	Sat. Sol.	S	S
camphor oil		U	U
carbon dioxide, dry gas	100%	S	S
carbon dioxide, wet		S	S
carbon disulphide	100%	U	U
carbonic acid		S	S
carbon monoxide	100%	S	S
carbon tetrachloride	100%	U	U
Castor oil	conc	S	S
chlorine, dry gas	100%	U	U
chlorine water	2% Sat. Sol.	L	L
chlorine, aqueous	Sat. Sol.	U	U
chlorobenzene	100%	U	U
chloroethanol	100%	S	S
chloroform	100%	U	U
chlorometane, gas	100%	L	X
chloropropene		U	U
chlorosulphonic acid	100%	U	U
chlorotoluene		U	U
chrome alum	Sol.	S	S
chromic acid	Sat. Sol.	S	S
chromium VI oxide	Sat. Sol.	S	S
Cider		S	S
citric acid	Sat. Sol.	S	S
citric acid	10%	S	S
citric acid	25%	S	S
coconut oil, alcoholic		S	S
coffee		S	S
copper II chloride	Sat. Sol.	S	S
copper II cyanide	Sat. Sol.	S	S
copper II fluoride	2%	S	S
copper II fluoride	Sat. Sol.	S	S
copper II nitrate	Sat. Sol.	S	S
copper II sulphate	Sat. Sol.	S	S
corn oil		S	S
cottonseed oil		S	S
crotonaldehyde	Sat. Sol.	L	X
cyclanone		S	S
cyclohexane		U	U
cyclohexanol	Sat. Sol.	L	U
cyclohexanol	100%	U	U
cyclohexanone	100%	U	U
decahydronaphthalene	100%	L	U
decane		U	U
detergents, synthetic		S	S
dextrin	Sol.	S	S
dextose	Sol.	S	S

CHEMICAL/PRODUCT	CONCENTRATION	TEMPERATURE	
		20°C	60°C
diacetone alcohol		L	L
diazo salts		S	S
dibutyl amine		U	U
dibutyl ether		U	U
dibutylphthalate		L	L
dichlorobenzene		U	U
dichloroethylene		U	U
dichloropropylene		U	U
diesel oil		S	U
diethyl ether	100%	U	U
diethyl ketone		L	U
diethylene glycol		S	S
diglycolic acid		S	S
diisobutylketone	100%	S	L
dimethyl amine	100%	U	U
dimethylformamid		S	L
dioctyl phthalate	100%	L	U
dipentene		U	U
disodium phosphate		S	S
Drano, plumbing cleaner		S	S
emulsions, photographic		S	S
ethandiol	100%	S	S
ethanol	40%	S	L
ethanol	96%	L	L
ethyl acetate	100%	L	U
ethyl acrylate	100%	U	U
ethyl alcohol	35%	S	S
ethyl alcohol	100%	S	S
ethyl benzene		U	U
ethyl chloride	100%	U	U
ethylene chloride	100%	U	U
ethylene diamine	100%	S	L
ethyl ether		U	U
ethylene glycol	100%	S	S
ethyl mercaptan		U	U
ferric chloride	Sat. Sol.	S	S
ferric nitrate	Sat. Sol.	S	S
ferric sulphate	Sat. Sol.	S	S
ferrous chloride	Sat. Sol.	S	S
ferrous sulphate	Sat. Sol.	S	S
fish Sol.ubles	Sol.	S	S
fluoroboric acid		S	S
fluorine gas	100%	L	U
fluorine gas, dry	100%	U	U
fluorine gas, wet	100%	U	U
fluorosilicic acid	40%	S	S
fluorosilicic acid	conc	S	L
formaldehyde	40%	S	S
formic acid	40%	S	S
formic acid	98 to 100 %	S	S
fructose sat	Sol.	S	S
fruit pulp	Sol.	S	S
furfural	100%	U	U
furfuryl alcohol	100%	L	U
gallic acid sat	Sol.	S	S
gasoline, petrol		L	U
gelatine		S	S
glucose	Sat. Sol.	S	S
glycerine	100%	S	S
glycerol	100%	S	S

CHEMICAL/PRODUCT	CONCENTRATION	TEMPERATURE	
		20°C	60°C
glycolic acid	30%	S	L
glycolic acid	Sol.	L	U
n-heptane	100%	U	U
hexachlorobenzene		U	U
hexachlorophene		U	U
hexamethylenetriamine	40%	S	X
hexane		S	L
hexanol, tertiary		S	S
hydrobromic acid	50%	S	S
hydrobromic acid	up to 100 %	S	S
hydrochloric acid	up to 36 %	S	S
hydrochloric acid	conc	S	S
hydrochlorous acid	conc	S	S
hydrocyanic acid	10%	S	S
hydrocyanic acid	Sat. Sol.	S	S
hydrofluoric acid	40%	S	S
hydrofluoric acid	60%	S	L
hydrogen	100%	S	S
hydrogen chloride, dry gas		S	S
hydrogen peroxide	30%	S	L
hydrogen peroxide	90%	S	U
hydrogen sulphide, gas	100%	S	S
hydroquinone	Sat. Sol.	S	S
hydroxylamine	up to 12 %	S	S
inks		S	S
iodine, in potassium	Sol.	L	U
iodine, in alcohol		U	U
iron II chloride	Sat. Sol.	S	S
iron II sulphate	Sat. Sol.	S	S
iron III chloride	Sat. Sol.	S	S
iron III nitrate	Sol.	S	S
iron III sulphate	Sat. Sol.	S	S
iso octane	100%	S	U
iso pentane		U	U
isopropanol		S	S
iso propyl amine		U	U
isopropyl ether	100%	L	U
kerosene		U	U
lactic acid	10%	S	S
lactic acid	28%	S	S
lactic acid	up to 100 %	S	S
latex		S	S
lead acetate	Dil. Sol.	S	S
lead acetate	Sat. Sol.	S	S
lead arsenate		S	S
lubricating oil		S	S
lySol.		U	U
magnesium carbonate	Sat. Sol.	S	S
magnesium chloride	Sat. Sol.	S	S
magnesium hydroxide	Sat. Sol.	S	S
magnesium nitrate	Sat. Sol.	S	S
magnesium sulphate	Sat. Sol.	S	S
maleic acid	Sat. Sol.	S	S
mercury		S	S
mercury I nitrate	Sol.	S	S
mercury II chloride	Sat. Sol.	S	S
mercury II cyanide	Sat. Sol.	S	S
mercury	100%	S	S
methyl alcohol	100%	S	L
methanol	100%	S	L

CHEMICAL/PRODUCT	CONCENTRATION	TEMPERATURE	
		20°C	60°C
methyl benzoic acid	Sat. Sol.	U	U
methyl bromide	100%	U	U
methyl chloride	100%	U	U
methylcyclohexane		L	U
methylene chloride		U	U
methoxybutanol	100%	S	L
milk		S	S
milk of magnesia		S	L
mineral oils		L	U
molasses	work conc	S	S
motor oil		S	L
naphtha		L	U
naphthalene		U	U
nickel chloride	Sat. Sol.	S	S
nickel nitrate	Sat. Sol.	S	S
nickel sulphate	Sat. Sol.	S	S
nicotine	Dil. Sol.	S	S
nicotinic acid	Dil. Sol.	L	L
nitric acid	25%	S	S
nitric acid	50%	S	L
nitric acid	70%	S	L
nitric acid	95%	U	U
nitric acid	100%	U	U
nitrobenzene	100%	U	U
nitroethane	100%	S	U
nitromethane	100%	S	X
nitrotoluene		U	U
n-octane		S	S
octyl alcohol		S	U
oils and fats		L	U
oleic acid	100%	L	U
oleum (H2SO4 + 10% SO3)		U	U
oleum (H2SO4 + 50% SO3)		U	U
olive oil		S	U
orthophosphoric acid	50%	S	S
orthophosphoric acid	95%	S	L
oxalic acid	Sat. Sol.	S	S
oxygen	100%	S	S
ozone	100%	U	U
paraffin oil		S	L
n-pentane		U	U
pentane-2		U	U
perchloroethylene		U	U
perchloric acid	20%	S	S
perchloric acid	50%	S	L
perchloric acid	70%	S	U
phenol	Sol.	L	U
phosphine	100%	S	S
phosphoric acid	up to 25 %	S	S
phosphoric acid	25 to 50 %	S	S
phosphoric III chloride	100%	S	L
phosphorous pentoxide	100%	S	S
phosphorous trichloride	100%	S	L
photographic Sol.utions		S	S
phtalic acid	50%	S	S
picric acid	Sat. Sol.	S	L
plating Sol.utions		S	S
pluming cleaner, Drano		S	S
potassium acetate		S	S
potassium aluminium sulphate	Sat. Sol.	S	S

CHEMICAL/PRODUCT	CONCENTRATION	TEMPERATURE	
		20°C	60°C
potassium benzoate		S	S
potassium bicarbonate	Sat. Sol.	S	S
potassium borate	Sat. Sol.	S	S
potassium bromate	Sat. Sol.	S	S
potassium bromide	Sat. Sol.	S	S
potassium carbonate	Sat. Sol.	S	S
potassium chlorate	Sat. Sol.	S	S
potassium chloride	Sat. Sol.	S	S
potassium chromate	Sat. Sol.	S	S
potassium cyanide	Sol.	S	S
potassium dichromate	Sat. Sol.	S	S
potassium fluoride	Sat. Sol.	S	S
potassium hexacyano			
- ferrate II	Sat. Sol.	S	S
- ferrate III	Sat. Sol.	S	S
potassium hexafluoro silicate	Sat. Sol.	S	S
potassium hydrogen carbonate	Sat. Sol.	S	S
potassium hydrogen sulphate	Sat. Sol.	S	S
potassium hydroxide	10%	S	S
potassium hydroxide	Sol.	S	S
potassium hypochlorite	Sol.	S	L
potassium iodate	10%	S	S
potassium iodide	Sat. Sol.	S	S
potassium nitrate	Sat. Sol.	S	S
potassium orthophosphate	Sat. Sol.	S	S
potassium oxalate	Sat. Sol.	S	S
potassium perchlorate	Sat. Sol.	S	S
potassium permanganate	20%	S	S
potassium persulphate	Sat. Sol.	S	S
potassium phosphate	Sat. Sol.	S	S
potassium sulphate	Sat. Sol.	S	S
potassium sulphide	Sol.	S	S
potassium sulphite	Sat. Sol.	S	S
potassium thiocyanate	Sat. Sol.	S	S
potassium thiosulphate	Sat. Sol.	S	S
propargyl alcohol		S	S
n-propyl alcohol		S	S
propionic acid	50%	S	S
propylene dichloride	100%	U	U
propylene glycol		S	S
quinol	Sat. Sol.	S	S
resorcinol	Sat. Sol.	S	S
salicylic acid	Sat. Sol.	S	S
sea water		S	S
selenic acid		S	S
silicon oil		S	S
silver acetate	Sat. Sol.	S	S
silver cyanide	Sat. Sol.	S	S
silver nitrate	Sat. Sol.	S	S
soap Sol.ution	100%	S	S
sodium acetate	Sat. Sol.	S	S
sodium antimonate	Sat. Sol.	S	S
sodium arsenite	Sat. Sol.	S	S
sodium benzoate	Sat. Sol.	S	S
sodium bicarbonate	Sat. Sol.	S	S
sodium bisulphate	Sat. Sol.	S	S
sodium bisulphite	Sat. Sol.	S	S
sodium borate	Sat. Sol.	S	S
sodium bromide	Sat. Sol.	S	S
sodium carbonate	Sat. Sol.	S	S

CHEMICAL/PRODUCT	CONCENTRATION	TEMPERATURE	
		20°C	60°C
sodium chlorate	Sat. Sol.	S	S
sodium chloride	Sat. Sol.	S	S
sodium chlorite	Sat. Sol.	L	L
sodium cyanide	Sat. Sol.	S	S
sodium dichromate	Sat. Sol.	S	S
sodium fluoride	Sat. Sol.	S	S
sodium hexafluoro silicate	Sat. Sol.	S	S
sod hydrogen carbonate	Sat. Sol.	S	S
sod hydrogen sulphate	Sat. Sol.	S	S
sod hydrogen sulphite	Sol.	S	S
sodium hydroxide	40%	S	S
sodium hydroxide	Sol.	S	S
sodium hypochloride		L	U
sodium hypochlorite	15%	L	U
sodium iodate	10%	S	S
sodium iodide	Sat. Sol.	S	S
sodium nitrate	Sat. Sol.	S	S
sodium nitrite	Sat. Sol.	S	S
sodium ortophosphate	Sat. Sol.	S	S
sodium oxalate	Sat. Sol.	S	S
sodium phosphate	Sat. Sol.	S	S
sodium silicate	Sol.	S	S
sodium sulphate	Sat. Sol.	S	S
sodium sulphide	Sat. Sol.	S	S
sodium sulphite	Sat. Sol.	S	S
sodium thiocyanate	Sat. Sol.	S	S
stannic chloride	Sat. Sol.	S	S
stannous chloride	Sat. Sol.	S	S
starch Sol.ution	Sat. Sol.	S	S
stearic acid	Sat. Sol.	S	L
styrene	Sol.	L	U
sulphur dioxide, dry	100%	S	S
sulphur trioxide	100%	U	U
sulphur acid	10 to 50 %	S	S
sulphuric acid	10%	S	S
sulphuric acid	50%	S	S
sulphuric acid	70%	S	L
sulphuric acid	80%	S	U
sulphuric acid	98%	L	U
sulphuric acid, fuming		U	U
sulphurous acid	30%	S	S
sulphurous acid	Sol.	S	S
tallow		S	L
tannic acid	Sol.	S	S
tartaric acid	Sol.	S	S
tartaric acid	Sat. Sol.	S	S
tetrachloroethylene	100%	U	U
tetrachloromethane	100%	U	U
tetradecane		U	U
tetrahydrofuran		U	U
tetrahydronaphthalene	100%	L	U
thionyl chloride	100%	U	U
tin II chloride	Sat. Sol.	S	S
tin IV chloride	Sol.	S	S
titanium tetrachloride	Sat. Sol.	U	U
toluene	100%	U	U
tribromomethane		U	U
trichloroacetaldehyde		S	X
trichlorobenzene		U	U
trichloroethylene	100%	U	U

CHEMICAL/PRODUCT	CONCENTRATION	TEMPERATURE	
		20°C	60°C
triethanolamine	100%	S	X
triethanolamine	Sol.	S	L
triethylene glycol		S	S
trisodium phosphate	Sat. Sol.	S	S
turpentine		U	U
urea	up to 30 %	S	S
urea	Sol.	S	S
urine		S	S
vanilla extract		S	S
vaseline		S	L
vegetable oils		S	L
vinegar		S	S
water		S	S
wetting agents		S	S
wines and spirits		S	S
xylene	100%	U	U
yeast	Sol.	S	S
zinc bromide	Sat. Sol.	S	S
zinc carbonate	Sat. Sol.	S	S
zinc chloride	Sat. Sol.	S	S
zinc nitrate	Sat. Sol.	S	S
zinc oxide	Sat. Sol.	S	S
zinc stearate	Sat. Sol.	S	S
zinc sulphate	Sat. Sol.	S	S

Apart from the content, there are many other factors, that combined can have influence on the tank. Hence, this document should be used as guidance - not a warranty for things that is beyond our control. Strong flows, pressure, UV radiation, impurities in the content are factors that individually or combined can have an impact on the tank. Remember to always put the security of your application first