

**COOLGUARD™ HR CHEMICAL  
RESISTANCE GUIDE**

Concentration			Concentration		
A			B		
Acetic Acid	5%	A	Barium Carbonate		T
Acetic Acid	50%	X	Barium Hydroxide		T
Acetic Acid Glacial		X	Barium Sulfate		T
Acetic Anhydride		X	Benzene	<1%	B
Acetone		C	Benzene	25%	B
Alkyl Alcohol		T	Benzene	100%	7 DAYS
Alkyl Chloride		X	Benzoic Acid		T
Aluminum Chloride		T	Bismuth Carbonate		T
Aluminum Fluoride		T	Borax Solutions		T
Aluminum Sulfate		T	Boric Acid	10%	T
Ammonia Carbonate		T	Bromic Acid		X
Ammonium Chloride		T	Bromine Anhydrous		X
Ammonium Fluoride	20%	T	Butyl Acetate		X
Ammonium Hydroxide	30%	T	Butyl Alcohol		T
Ammonium Nitrate		T	Butyl Phenol		X
Ammonium Phosphate		T	Butyric Acid		X
Ammonium Sulfate		T	C		
Ammonium Sulfide		T	Calcium Bisulfate		T
Amyl Acetate		X	Calcium Carbonate		T
Amyl Alcohol		T	Calcium Chloride		T
Amyl Chloride		X	Calcium Hydroxide		T
Aniline		X	Calcium Hypochlorate		T
Animal Oil		T	Calcium Nitrate	50%	T
Antimony Chloride		A	Calcium Sulfate		A
Aqua Regia		X	Calcium Disulfide		X
ASTM Fuel A		A	Carbon Tetrachloride		C
ASTM Fuel B		A	Carbonic Acid		T
ASTM Fuel C		B	Castor Oil		T
ASTM Oil #1		T	Chlorine Gas		X
ASTM Oil #2		A	Chloroacetic Acid		X
ASTM Oil #3		T	Chlorobenzene		X
Asphalt		T	Chloroform		X
			Chlorosulfonic Acid		X
			Chrome Aluminum		T
			Chromic Acid 30%		X
			Chromium Trioxide		X
			Citric Acid		T
			Copper Chloride		T

A-Fluid has little to minor effect  
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 T- No test data, likely to have minor effect

Concentration	
Copper Nitrate	T
Copper Sulfate	T
Corn Oil	T
Cottonseed Oil	T
Crude Oil	T
Cyclohexane	T
Cyclohexanol	T
Cyclohexanone	X
D	
Dextrine	T
Dibutyl Phthalate	X
Diesel Fuel	A
Diethyl Ether	X
Diethyl Sebacate	X
Dimethylamine	X
Diethyl Ketone	X
Disodium Phosphate	T
E	
Epichlorohydrine	C
Ethyl Acetate	C
Ethyl Alcohol	B
Ethyl Bromide	C
Ethyl Chloride	C
Ethylene Dichloride	X
Ethylene Glycol	T
Ethylene Oxide	A

Concentration	
G	
Gallic Acid	X
Gasoline	<25% BTX A
Gasoline	>25% BTX A
Glucose	T
Glycerine	T
H	
Hexane	A
Hydraulic Fluid	X
Hydrazine	X
Hydrobromic Acid	X
Hydrochloric Acid	20% X
Hydrochloric Acid	37% X
Hydrocyanic Acid	T
Hydrofluoric Acid	20% X
Hydrofluoric Acid	75% X
Hydrofluosilic Acid	30% C
Hydrogen Peroxide	3% A
Hydrogen Peroxide	10% T
Hydrogen Sulfide	T
Hydroquinone	B
I	
Iso-Octane	A
Isopropyl Alcohol	A
J	
JP-4 Jet Fuel	A
Jet A	T
Jet B	T
K	
Kerosene	A

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Concentration		Concentration	
<b>L</b>		<b>P</b>	
Lactic Acid	X	Palmitic Acid	T
Lead Acetate	T	Perchlorethylene	<1% T
Linseed Oil	T	Perchloroethylene	100% C
Lubricating Oils	T	Phenol	C
<b>M</b>		Phenol Formaldehyde	X
Magnesium Carbonate	T	Phosphoric Acid	50% C
Magnesium Chloride	T	Phosphoric Acid	75% X
Magnesium Hydroxide	T	Phosphorous Yellow	X
Magnesium Nitrate	T	Phosphorous Pentoxide	X
Magnesium Sulfate	T	Photographic Solutions	T
Malic Acid	T	Phthalate Plasticizer	C
Mercuric Chloride	T	Pickling Solutions	X
Methyl Ethyl Keytone	C	Potassium Bicarbonate	T
Mineral Oil	T	Potassium Carbonate	T
Mineral Spirits	T	Potassium Chromate	40% T
<b>N</b>		Potassium Cyanide	T
Naptha	X	Potassium Dichromate	T
Napthalene	X	Potassium Hydroxide	T
Nitric Acid	10% X	Potassium Nitrate	T
Nitric Acid	50% X	Potassium Perchlorate	10% T
Nitric Acid	70% X	Potassium Permanganate	T
Nitrobenzene	X	Potassium Sulfate	A
<b>O</b>		Pyridine	X
Oleic Acid	T	<b>S</b>	
Oleum 25%	C	Salt Water	A
Oxalic Acid	T	Silicon Grease	T
		Silver Nitrate	T
		Skydrol Hydraulic Fluid	C
		Soap Solutions	A
		Sodium Acetate	A
		Sodium Bicarbonate	A
		Sodium Bisulfate	T
		Sodium Carbonate	T
		Sodium Chlorate	T
		Sodium Chloride	A
		Sodium Dichromate	20% T
		Sodium Dichromate	100% T
		Sodium Ferrocyanide	T
		Sodium Fluoride	T

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	Concentration	
Sodium Hydroxide	25%	T
Sodium Hydroxide	60%	A
Sodium Hypochlorite		T
Sodium Nitrate		T
Sodium Sulfate		T
Soybean Oil		A
Stannous Chloride		X
Stearic Acid		A
Styrene		X
Sulfuric Acid 10%		X
Sulfuric Acid 40%		X
Sulfuric Acid 98%		X
T		
Tannic Acid		X
Tartaric Acid		T
Tetrahydrofuran		X
Toluene	<1%	T
Toluene	25%	T
Toluene	100%	C
Transformer Oil		T
Triethanolamine		B
Trisodium Phosphate		T
Tung Oil		T
Turpentine		B
U		
Urea		T
V		
Vegetable Oil		A
W		
Water		A

	Concentration	
X		
Xylene	<1%	T
Xylene	25%	T
Xylene	100%	X
Z		
Zinc Chloride		T
Zinc Oxide		T

The data shown are the result of laboratory tests and are intended only as a guide. No performance warranty is intended or implied.

Ratings were determined by visual experimentation of coated fabric samples after contact with test fluid for 28 days at room temperature.

When considering Coolguard Membranes for a specific application, it is important to study other requirements such as permeability, service temperature, concentration, size to be contained, etc.

A sample of material should be tested in actual service before specification. When impractical, tests should be devised which simulate actual service conditions as closely as possible.

This table is presented and accepted at user's risk.

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