

Chemical Resistance Charts

- Ratings - Chemical Behavior**
- A - No effect**
 - B - Minor effect**
 - C - Moderate effect**
 - D - Severe effect; not recommended**
 - No data available

D A N G E R

Variations in chemical behavior during handling due to factors such as temperature, pressure and concentration can cause equipment to fail, even though it passed an initial test.

The information in this chart has been supplied to American-Marsh Pumps by other reputable sources and is to be used **ONLY** as a guide in selection equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.

Ratings of chemical behavior listed in this chart apply to a 48-hour exposure period; American-Marsh Pumps has no knowledge of possible effects beyond this period. American-Marsh Pumps does not warrant (neither express nor implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose.

CHEMICAL	Plastics					Elastomers					Metals					Non-Metals																																				
	ABS Plastic	Acetal (Delrin®)	CPVC	Epoxy	Hytrel®	LDPE	NORYL®	Nylon	Polycarbonate	Polypropylene	PPS (Ryton®)	PTFE (Teflon®)	PVC	PVDF (Kynar®)	Buna N (Nitrile)	EPDM	Hypalon®	Kel-F®	Natural Rubber	Neoprene	Silicone	Tygon®	Viton®	416 Stainless Steel	304 Stainless Steel	316 Stainless Steel	17-4 PH Stainless Steel	Aluminum	Copper	Brass	Bronze	Cast Iron	Ductile Iron/Cast Steel	CD ₄ MCu	Alloy 20	Hastelloy-B®	Hastelloy-C®	Titanium	Carbon Graphite	Ceramic Al ₂ O ₃	Ceramic Magnet											
Acetaldehyde	D	A	D	A	-	C	-	A	C ¹	A ¹	A	A	D	D	D	A	C	A	C	C	A	D	D	A ²	A	A	-	B	-	A	A	C	A ³	A ⁴	-	-	A ⁴	A	A	A	-	-										
Acetamide	-	A	-	A	-	A	-	A	D	A ¹	A	A	D	C	A	A	B	A	D	B	B	D	B	-	B	A	-	A	-	-	D	D	-	-	-	-	-	-	-	-	-	A	-	-								
Acetate Solvent	-	-	C	A	-	A	D	A	-	B ¹	A	A	D	A	C	A	C	A ¹	C	D	C	D	D	-	A	A	-	A	A	A	C	D	-	-	A	-	A	A	A	A	A	-	-									
Acetic Acid	D	D	C	C	-	A ²	A	D	B ¹	B	A	A	D	C	C	A	C	A	B	C	C	D	B	D	D	B	C ⁴	B	B	D	C	D	D	A ⁴	A	A ⁴	A	A	A	A	A	-	-									
Acetic Acid 20%	C	C	A	A ¹	-	A	A	D	A ¹	A	A	A	D	A	B	A	A	A	B	A	B	D	B	-	B	A	-	B	B	D	C	D	-	-	A	-	-	-	-	-	-	A	A	A								
Acetic Acid 80%	D	D	C	B ¹	-	D	A	D	B ¹	A	A	A	C	C	C	A	C	A	C	C	B	D	B	-	D	B	-	B	B	D	C	D	-	-	A	-	-	-	-	-	-	A	A	A								
Acetic Acid, Glacial	D	D	B ¹	B ¹	A ¹	D	A	B	B ¹	A ¹	A	A	D	A ¹	C	B	C	A ²	C	D	B	D	D	-	C	A	-	B	B	-	C	D	-	-	A	-	-	-	-	-	-	A	A	A								
Acetic Anhydride	C ¹	D	D	C	C	D	D	A ¹	D	B ¹	A	A	D	B ¹	D	B	A	A	C	A	C	D	D	D	B	A	A ¹	A ¹	B	D	C	D	D	A ⁵	B	A ⁵	A	A	A	A	A	-	-									
Acetone	D	A	D	B ¹	B	B ¹	D	A	D	A	A	D	D	D	D	A	C	A	C	C	D	D	D	A ⁵	A	A	A ⁵	A	A	A	A	A	A	A ⁵	A ⁵	A	A ⁵	A	A	A	A	-	-									
Acetyl Bromide	-	-	-	-	-	D	-	D	-	-	-	A	D	-	-	-	-	-	-	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
Acetyl Chloride (dry)	D	D	C	D	-	D	D	B	D	D	A	A	C	A ²	D	D	D	A	D	D	C	C	A	-	A	A	-	D	A	D	-	B	-	-	B	-	A	-	-	-	-	-	-	-								
Acetylene	-	A	C	A	A	D	-	A	D	A ¹	A	A	A ¹	A	B	A	B	A	B	B	B	A ¹	A	-	A	A	-	A	D	B	C	A	-	-	A	-	-	-	-	-	-	-	A	-	-							
Acrylonitrile	D	-	A	A	-	A	-	A ¹	D	A ¹	A	A	B ¹	A ¹	D	D	C	D	-	D	-	D	-	-	A ¹	A ¹	-	B ¹	A	-	A	-	A ¹	-	-	A ¹	-	B	-	B	-	-	-	-								
Adipic Acid	-	-	A ²	A	-	A	-	-	B ²	-	A	A ²	A ²	C	A ²	-	-	A ¹	C	-	A ²	A ²	-	A ¹	A ²	-	A	D	-	-	A	-	-	-	-	-	-	-	-	-	-	A ²	-	-								
Alcohols: Amyl	-	A	A ²	B	-	B ²	C	A ¹	B ¹	B ¹	A	A	A ²	A	B	A	A	B	A	D	A ²	B	-	A	A	-	B	A	A	A	B	-	-	A	-	-	-	-	-	-	-	-	A	A	-							
Benzyl	D	A	A	C	-	D	D	B ¹	-	A	A	A	D	A	D	B	C	A	D	C	-	D	A	-	B	B	-	B	B	-	A	B	-	-	A	-	-	-	-	-	-	-	-	-	A	-	-					
Butyl	A ¹	A	A ²	A	-	A	A	D	A ²	A	A	A	A ²	A	C	B	A	-	A	C	B	A ²	A	-	A	A	-	B	A	A	A	B	-	-	A	-	-	-	-	-	-	-	-	-	A	-	-					
Diacetone	-	A	-	A	-	B ¹	A	-	A	-	B ²	-	A	B ¹	A ¹	D	A	D	B ¹	D	D	B ¹	D	-	A	A	-	A ¹	-	A	A	A	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-					
Ethyl	B ¹	A ¹	B ¹	A ²	-	B	A ¹	A ¹	B ²	A	-	A	C	-	C	A	A	A	A	B	C	A	-	A	A	-	B	A	A	A	B	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-					
Hexyl	-	A	-	A	-	A	A	A	-	-	-	A	A ²	-	A	C	B	-	A	A	B	A ²	C	-	A	A	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Isobutyl	B	A	-	A	-	A ²	A ¹	D	A ²	A ²	-	A ²	A ¹	-	B	A	A	-	A	A	A ¹	A	-	A	A	-	B	-	-	-	A	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Isopropyl	-	A	C	A	-	A ²	A ¹	D	A ²	A ²	-	A ²	A ¹	-	B	A	A	-	A	B	A	A ¹	A	A ⁴	B	B	A ¹	B	B	-	A	A	A ²	A ²	A	A ⁴	A	B	A	A	A	-	-	-	-	-	-					
Methyl	D	A	A	B ¹	B	A ¹	A	B ¹	B ¹	A ²	A	A	A ¹	A	A	A	A ¹	A	A	A	A ¹	C	-	A	A	-	A ¹	B ¹	-	A	A	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-					
Octyl	A ¹	A	B ¹	A	-	A	A	A	-	-	-	-	-	-	B	A	B	-	B	B	-	B	-	-	A	-	A	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Propyl	B ¹	A	A	A	-	A ²	A ²	D	-	A	A	A	A ¹	A ²	B	A	A	-	A	A	A ¹	A	-	A	A	-	A	A	A	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Aluminum Chloride	A	-	A	A ¹	C	B ²	A	B ¹	A ¹	A	A	A	A ²	A	A	A	B	A	A	A	B	A ²	A	D	B	B	D	D	B	D	D	D	D	D	B ¹	A ⁴	A	B	A	A	-	-	-	-	-	-	-					
Aluminum Chloride 20%	-	C	A	B ¹	-	B	A ¹	D	A ¹	A	A	A	A ¹	A	A	A	B	A	A	A	B	A ¹	A	-	D	C ¹	-	D	-	D	D	D	-	-	C ¹	-	A	B	A	A	B	-	-	-	-	-	-	-				
Aluminum Fluoride	A	C	A	A ¹	-	A ²	A ¹	A ¹	-	A	A	A	A ²	A	A	A	A	-	B	A	B	A ²	A	-	D	D	-	B ¹	D	-	D	-	-	D	-	-	C	-	B	A	A	-	-	-	-	-	-	-	-			
Aluminum Hydroxide	B	A	A	B ¹	-	A ²	A	A ¹	B ¹	A	-	A	A ²	A	A	A	A ²	A ¹	D	A	-	A ²	A	-	A ¹	C ¹	-	B ¹	D	B	C	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Aluminum Nitrate	-	B ²	A	A ²	-	A ²	-	A ¹	A	A ²	-	A	B ²	A ²	A ²	A ²	A ²	A ¹	A ¹	A ¹	B ¹	B ²	A ²	A ⁴	A	A	A ²	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Aluminum Potassium Sulfate 10%	-	C	B	A ¹	-	A ²	A ²	D	A ¹	A	-	A	A ²	B	A	A	A	A	A	A	A	A ²	A	-	A	A	-	C	A ²	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Aluminum Potassium Sulfate 100%	-	C	B	A ¹	-	A ²	A ²	D	A ²	A	-	A	A ²	-	A	A	A	A	A	A	A	A ²	A	-	D	B ²	-	C	B	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Aluminum Sulfate	A ²	B ¹	A ²	A ²	B ¹	A ²	A ²	A ²	A	A	A	A ²	A	A	A	A	A	A	A	A	A	A ²	A	D	B	B ²	D	B ¹	A ²	B ¹	B	D	D	D	A ⁴	B	A ⁵	B	A	A	A	-	-	-	-	-	-	-				
Alums	-	-	A	A	D	A	-	A	-	A	-	A	-	-	A	A ¹	-	-	A	B	A ¹	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Amines	-	D	D	A ²	A ¹	C ¹	D	D	D	B ²	B	A ²	D	-	B	B	D	A	B	B	B	D	D	-	A	A	-	B	-	B ¹	D	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ammonia 10%	-	D	A	A ²	-	C ¹	A ¹	D	A	D	A ²	A	A	B ¹	A	A	D	A	D	A	-	B ¹	D	-	A	A	-	A ²	-	-	D	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ammonia Nitrate	-	C	B	A	-	A	A ¹	D	-	A	C	A	B	A	C	A	D	-	-	C	-	B	D	-	A	A	-	C	-	-	-	D	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia, anhydrous	D	D	A ¹	A	D	B ²	B ¹	A ¹	D	A	A ¹	A	A ²	A	B	A	D	A	D	A	C	A ²	D	A ⁵	A	A ²	A ⁵	A ¹	D	D	D	A	A ⁴	A ⁵	A	A ⁵	B	C	A	-	-	-	-	-	-	-	-	-	-	-		
Ammonia, liquid	-	D	A	A ¹	-	C ¹	-	B ¹	D	A ²	A ¹	A	A ¹	A	C	A	D	A	D	A	-	A ²	D	-	B ²	A ²	-	A	-	-	D	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ammonium Acetate	-	-	A	-	-	A	-	A	-																																											

Chemical Resistance Charts

Ratings -

Chemical Behavior

- A - No effect
- B - Minor effect
- C - Moderate effect
- D - Severe effect; not recommended
- No data available

D A N G E R

Variations in chemical behavior during handling due to factors such as temperature, pressure and concentration can cause equipment to fail, even though it passed an initial test.

The information in this chart has been supplied to American-Marsh Pumps by other reputable sources and is to be used **ONLY** as a guide in selection equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.

Ratings of chemical behavior listed in this chart apply to a 48-hour exposure period; American-Marsh Pumps has no knowledge of possible effects beyond this period. American-Marsh Pumps does not warrant (neither express nor implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose.

CHEMICAL	Plastics											Elastomers							Metals							Non-Metals																						
	ABS Plastic	Acetal (Delrin®)	CPVC	Epoxy	Hyrel®	LDPE	NORYL®	Nylon	Polycarbonate	Polypropylene	PPS (Ryton®)	PTFE (Teflon®)	PVC	PVDF (Kynar®)	Buna N (Nitrile)	EPDM	Hypalon®	Kel-F®	Natural Rubber	Neoprene	Silicone	Tygon®	Viton®	416 Stainless Steel	304 Stainless Steel	316 Stainless Steel	17-4 PH Stainless Steel	Aluminum	Copper	Brass	Bronze	Cast Iron	Ductile Iron/Cast Steel	CD ₄ MCu	Alloy 20	Hastelloy-B®	Hastelloy-C®	Titanium	Carbon Graphite	Ceramic Al ₂ O ₃	Ceramic Magnet							
Amyl Alcohol	A ¹	A	A	B ²	A ¹	B ²	C	A ¹	-	B ¹	A	A	A ²	A	B	A	A	B	B	D	B	D	A ⁴	A	A	A ²	B	A	A ¹	A	B	A ⁴	A ²	A	A ⁴	A	B	A	A	-								
Amyl Chloride	D	A	C	A ¹	-	D	D	C ¹	-	D	-	A	D	A	D	D	D	A	D	D	D	C	B ¹	D	A ²	A ²	A ²	A ¹	A	-	A	A	A ¹	A ³	A ²	A ¹	A ¹	C	A	A	-							
Aniline	D	A	B ²	D	D	C	D	A ²	D	A ¹	-	A	C ¹	A ¹	D	B	D	A ²	D	D	B	D	A	-	A	B	-	C	D	D	C	C	-	-	A	-	B	C	A	A	-							
Aniline Hydrochloride	D	A ¹	D	D	-	D	-	D	D	D	-	A	B ²	A ²	D	B	-	-	A	D	D	D	A	D	D	D	D	D	B	D	D	D	D	D	B	C ⁴	D	A	D	-	-							
Antifreeze	B	D	A	A	-	A	D	D	-	D	-	A	-	A	A	-	-	A	C	C	B	A	-	-	A	-	A	-	A	A	-	A	-	A	-	-	-	-	-	-	-	-						
Antimony Trichloride	A ²	-	A ²	D	-	B ²	A ²	D	A ²	A	-	A	A ²	A	B	B ¹	-	-	-	-	-	-	A ²	-	D	D	-	D	-	D	A	-	-	-	B	-	-	-	B	-	B	-	-					
Aqua Regia(80% HCl, 20% HNO ₃)	D	D	C ¹	D	-	B ¹	D	D	D	B ¹	D	A	C ¹	A ²	D	C	C	A	D	D	D	D	B	-	D	D	-	D	D	D	D	-	-	D	-	C	A ¹	D	-	C	-	-						
Arochlor 1248	-	-	-	A ²	C ¹	C ¹	-	A ¹	-	D	-	A	-	-	C ¹	B	D	A ¹	D	D	B	-	A	-	B	B	-	A	-	A ¹	A	B	-	-	-	-	-	A	A ¹	-	-	-	-					
Aromatic Hydrocarbons	-	A	D	A	C ¹	C	D	-	D	-	D	-	D	-	D	D	D	-	D	D	A	-	A	-	-	C	-	A	-	C	A	-	-	A	-	-	-	-	-	-	-	-	-	-				
Arsenic Acid	A ²	D	A	A ²	-	B ²	A ¹	C ¹	A ¹	A	A	A	A ¹	A	A ²	A ²	A	-	B	A	A	B	A ²	-	A ²	A ²	-	D	A	D	B	D	-	-	A ¹	-	B	B	A	-	-	-	-					
Arsenic Salts	-	-	-	-	B ¹	B	-	A	-	-	-	-	A	-	-	-	-	-	-	-	-	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Asphalt	-	B ²	A ²	A	B ¹	A ¹	-	A	D	B ¹	A	A ¹	A ²	A	B	D	D	A	D	D	D	-	A	-	B	A	-	A	A	B ¹	A ¹	A	-	-	A	-	-	-	-	-	-	-	-	-	-			
Barium Carbonate	A ²	A	A ²	A ²	-	B ²	A ²	A ¹	A ²	A	A ²	A	A ²	A	A ²	A	-	A	-	-	-	A	-	-	B ¹	B	-	D	A	B ¹	B	A	-	-	B ¹	-	B	A	A	A	A	A	A	A				
Barium Chloride	A ²	A	A ¹	A ²	B ¹	A ¹	A	A	A	A	A	A	A ¹	A	A	A	A	A	A	A	B	A	-	A	A ¹	A ¹	-	D	B ¹	B ¹	C	A ¹	-	B	C ⁴	B	A	A	A	A	A	A	A	A				
Barium Cyanide	-	B	D	A	-	B	-	A ¹	-	D	-	A ¹	D	-	C	A	A	-	-	C	-	-	A	-	A ¹	A ²	-	C ¹	D	C ¹	C	C ¹	-	-	A ¹	-	A	-	-	-	-	-	-	-	-	-		
Barium Hydroxide	A ²	D	A ²	A ²	B ¹	B ²	A ²	A ¹	D	B	A	A	A ²	-	A	A	A	A	A	A	-	A	-	A	-	B ¹	B	-	D	D	D	-	-	B ¹	-	B	B	A	A	A	A	A	A	A				
Barium Nitrate	-	B ²	A	A ²	-	B ²	A	A ¹	D	A	-	A ¹	A	-	A ²	A	-	A	-	A	B	-	A	-	C ³	B ¹	B	-	B	B	D	D	A	A ¹	C ⁴	B	A ⁵	-	B	A	-	-	-	-				
Barium Sulfate	A ²	B ²	B ²	A ²	D	B ²	A ¹	A ¹	D	B ¹	A	A	B ¹	A	A	A	A	A	A	-	A	-	A	A ⁴	B ¹	A ²	B	B	C	B	A ⁴	A ⁴	B	A ⁴	A	B	A	A	A	A	A	A	A					
Barium Sulfide	2	A	A ²	B ²	-	B ²	A ²	A ¹	-	B	-	A	A ²	A	A	A	-	A	A	-	A	-	A	-	B ¹	B ²	-	D	D	D	D	-	-	A ¹	-	-	A	A	A	A	A	A	A					
Beer	A ²	A ¹	A ²	A ²	A ¹	A ²	A ¹	A ¹	A ²	A ¹	A ²	A	A ²	A	A	A	A	A	A	A	C	A	-	A	A	-	A	B	B	A ¹	D	-	-	A	-	A ¹	B	A	-	-	-	-	-	-				
Beet Sugar Liquides	B	B	A ²	A ¹	-	A ¹	A	A	-	A ¹	-	A ²	A	A	A	A	A	A	A	A	-	A	-	A	-	A	-	A	-	C	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Benzaldehyde	B	A	D	D	B	A ¹	B	A ¹	D	D	A	A ¹	D	A ²	D	A	D	A	D	D	D	D	D	A ⁴	B	B	A ⁴	B	B	-	A	A	A ⁴	A ⁵	A	A ⁴	-	A	A	A	A	A	A	A	A			
Benzene	D	A ¹	D	C	C	C ¹	D	A ¹	D	D	A	A	C ¹	A ²	D	D	D	B	D	D	D	C	A	A ⁴	B	B	A ⁴	B	B	-	A	A	A ⁴	A ⁴	A	A ⁴	B	A	A	A	A	A	A	A	A			
Benzene Sulfonic Acid	-	-	D	B	B	A ¹	A	D	D	D	A	A	A	-	D	D	-	-	A	A	D	B	A	-	B	B	-	D	-	-	-	-	-	-	-	A	-	B	B	A	A	-	-	-	-			
Benzoic Acid	-	B	A ¹	A ¹	D	A ¹	B	D	B ¹	B ¹	A ¹	A ²	A	A	D	D	D	A	D	B	B	A	A	A ⁴	B	B	A ⁴	B	-	B	D	D	A ⁴	B	C ⁴	B ¹	A	A	A	A	A	A	A	A	A			
Benzol	D	A	-	A ¹	C	C ¹	B	D	D	B	A	A	-	A	D	D	D	A	D	D	D	C ¹	A	-	A ¹	A ¹	-	B ¹	B	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Benzonitrile	-	-	-	-	-	-	-	-	A ¹	-	-	A ²	-	-	-	-	-	A ²	-	-	-	-	-	-	D	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Benzyl Chloride	D	A	-	-	-	-	D	A ²	-	C ¹	-	-	-	-	D	D	D	-	D	D	-	A ²	-	C ¹	B ¹	-	D	D	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Black Liquor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Bleaching Liquors	-	-	-	D	-	A ¹	-	C	-	A ¹	-	A	A ¹	-	D	A	A	-	D	B	B	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Borax (Sodium Borate)	-	B	A	A ¹	A ¹	A ²	A ¹	A	-	B	A	A	A ¹	A	B	A	A	A	A	A	B	-	A	-	-	A	A	-	B ¹	B	B	B	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Boric Acid	-	A	A	A ¹	A ¹	A ²	A ¹	B	-	A	A	A	A ²	A	A	A	A	A	D	A	A	A	A	A ²	B ²	A ¹	A ²	D	B	-	B	D	D	C ⁵	B ²	A ⁵	A	-	-	-	-	-	-	-	-	-	-	
Brewery Slop	-	B	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bromine	D	D	D	D	D	D	A ¹	D	C ¹	D	D	A	C ¹	A	D	D	D	A	D	D	B	A	D	D	D	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butadiene	-	A	A ¹	A ¹	-	D	D	C ¹	D	C	A ¹	A ²	C ¹	A	D	C	B	A	D	B	D	-	B	-	A	A ¹	-	A	C	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butane	B	A	C ¹	A ¹	-	C ¹	D	A ²	D	A ¹	A	A	C ¹	A	A	D	B	A	D	A	D	C	A	A ⁴	A ²	A ²	A ⁴	A	C	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Butanol (Butyl Alcohol)	-	A	A	D	B ¹	B ²	A	B ¹	B ¹	A ¹	A	A	C ¹	A	A	A	A ¹	A	A	C	B	A	-	A	A ¹	-	B	B	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Butter	B	A	-	A	-	-	-	-	-	-	-	-	-	-	A	A	B	-	D	B	B	B	A	-	C	A	-	A	-	-	D	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Buttermilk	B	A	A ¹	A ¹	-	A ¹	A	B ¹	A ¹	A ¹	-	A	A ¹	-	A	A ¹	-	A	D	A	B	A	-	A	-	A	-	A	-	-	D	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Butyl Amine	-	C ¹	-	B ²	-	C ¹	D	A ²	D	B ¹	D	A ²	D	A ¹	-	-	-	D	D	B ¹	D	D	-	-	-	-	A	-	A																			



Chemical Resistance Charts

Ratings -

Chemical Behavior

- A** - No effect
- B** - Minor effect
- C** - Moderate effect
- D** - Severe effect; not recommended
- No data available

DANGER

Variations in chemical behavior during handling due to factors such as temperature, pressure and concentration can cause equipment to fail, even though it passed an initial test.

The information in this chart has been supplied to American-Marsh Pumps by other reputable sources and is to be used **ONLY** as a guide in selection equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.

Ratings of chemical behavior listed in this chart apply to a 48-hour exposure period; American-Marsh Pumps has no knowledge of possible effects beyond this period. American-Marsh Pumps does not warrant (neither express nor implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose.

CHEMICAL	Plastics											Elastomers						Metals							Non-Metals																				
	ABS Plastic	Acetal (Delrin®)	CPVC	Epoxy	Hytrel®	LDPE	NORYL®	Nylon	Polycarbonate	Polypropylene	PPS (Ryton®)	PTFE (Teflon®)	PVC	PVDF (Kynar®)	Buna N (Nitrile)	EPDM	Hypalon®	Kel-F®	Natural Rubber	Neoprene	Silicone	Tygon®	Viton®	416 Stainless Steel	304 Stainless Steel	316 Stainless Steel	17-4 PH Stainless Steel	Aluminum	Copper	Brass	Bronze	Cast Iron	Ductile Iron/Cast Steel	CD ₄ MCu	Alloy 20	Hastelloy-B®	Hastelloy-C®	Titanium	Carbon Graphite	Ceramic Al ₂ O ₃	Ceramic Magnet				
Calcium Oxide	D	A	A	A	A	B ¹	A	B	-	A	A	A	B	A	A	A	A	-	B	A	A	C	B	-	A	A	-	C	-	-	D	-	-	-	A	-	A	A	-	-	-	-			
Calcium Sulfate	C	D	A ²	A ²	-	B ¹	A	D	A ²	A	A	B ²	A	A ²	A	A	A	B	B	-	-	A	A ⁴	B	B	A ²	C	-	-	-	-	A	-	A ⁴	B ¹	-	B	A	A	A	A	A			
Calgon	-	D	-	A	-	-	A	A	-	A	-	-	-	-	A	A	A	-	A	A	-	A	A	-	A	-	-	-	-	-	C	D	-	-	-	-	-	-	-	-	-	-			
Cane Juice	-	D	A ²	A	-	-	-	A	-	C ¹	-	A	A ¹	A ¹	A	A	A	-	A	A	A	A	-	-	A	A	-	B	-	-	A	A	-	-	-	-	-	-	-	-	-	-			
Carbolic Acid (Phenol)	D	D	B ¹	C	D	D	D	D	B	A	A	D	A ¹	D	B	D	B	D	D	B	A	D	B	A	-	B	B	-	A	D	B	D	-	-	-	C	-	A	A	A	A	-			
Carbon Bisulfide	-	A	D	A	C ¹	-	-	A	-	D	-	-	D	-	C	D	D	-	D	D	-	D	A	-	-	A	B	-	B	-	-	B	-	-	-	B	-	-	-	-	-	-			
Carbon Dioxide (dry)	B	A	A	A ¹	A ¹	A ¹	A ¹	-	A ²	A	A	A ²	A	A	B	B	A	B	B	B	-	B	-	-	A	A ¹	-	B ¹	-	B	A	D	-	-	-	A	-	A	A	A	-	-			
Carbon Dioxide (wet)	B	A	A	A ¹	-	A ¹	A ¹	A ¹	-	A ²	A	A	A ¹	A	A	B	B	A	B	B	B	-	B	-	-	A	A ¹	-	A ¹	-	-	A	D	-	-	-	A	-	A	A	A	A	-		
Carbon Disulfide	-	A ¹	D	C ¹	-	C ¹	D	B ¹	D	D	A	A	D	B ²	D	D	D	A	D	D	-	-	A ¹	-	A ¹	B	-	A	-	-	D	A	D	-	B	-	B	B	A	A	-	-			
Carbon Monoxide	-	A	A ²	A ¹	A	A ²	A ²	A ¹	-	A	-	A	A ²	B	A	A	C	A ¹	D	B	A ²	-	A	-	-	A	A	-	A	-	A	A	-	-	B	-	B	-	B	-	A	-			
Carbon Tetrachloride	D	B ¹	D	A ¹	D	D	D	D	D	A	A	D	A ²	D	D	D	A ¹	D	D	D	B	A	-	-	B	B	-	D	A	-	A ²	D	-	-	B	-	A ¹	A	A	A	A	A			
Carbon Tetrachloride (dry)	D	-	-	-	D	D	D	-	D	A ²	A	-	A ²	C ¹	B ¹	D	D	D	D	D	-	A ²	D	B	B ²	A ²	D	-	A ¹	B ²	-	A ²	A ⁴	B	A ²	B	A ²	A ²	A	A	A				
Carbon Tetrachloride (wet)	D	A ¹	D	-	-	D	-	-	D	A ²	A	-	A ²	D	D	D	A ¹	D	D	D	-	-	D	A ²	A ²	D	D	-	B ²	A ²	C	D	D	A	A ¹	B	A ²	A ²	A	A	-	-			
Carbonated Water	-	A	A	A	-	A	A	A	-	B	-	-	A	-	A	-	-	-	A	-	-	A	-	-	A	A	-	A	B	D	A	D	-	-	C	-	-	-	-	-	-	-			
Carbonic Acid	-	B ¹	A	A ²	D	B ²	A ¹	A ¹	A ¹	A	A	A	A ²	A	D	B	C	A	C	D	A	-	A	-	A ¹	A	-	B ¹	-	D	B	D	-	-	A	-	A ²	B ¹	A	A	-	-			
Catsup	B	B	A	A	-	-	A	A	-	A	-	-	A	-	A	A	-	-	-	A	-	-	A	-	-	A	A	-	D	D	-	A	D	-	-	C	-	-	-	-	-	-			
Chloric Acid	-	D	A	-	-	-	D	D	-	-	-	A	A ²	-	-	-	-	A	-	-	-	-	-	-	D	C ¹	-	D	D	D	D	D	-	-	A ¹	-	A ²	-	D	-	-	-	-		
Chlorinated Glue	-	D	-	A	-	-	-	-	-	-	-	-	-	-	B	B	-	-	-	D	-	-	A	-	-	A	-	-	-	-	A	D	-	-	A	-	-	-	-	-	-	-	-		
Chlorine Water	-	D	A ²	A ²	-	B ¹	C ¹	C ¹	-	D	D	A	A ²	B	D	C	C	A	C	D	D	-	A	D	C	C	D	D	D	D	B	-	-	-	A ²	D	A ²	A	A	A	A	A			
Chlorine, Anhydrous Liquid	-	A ¹	D	C ¹	-	D	B ¹	D	C	D	D	A	D	A ¹	D	B	C	B ²	C	D	D	B	A	C ¹	C	D	-	D	D	D	-	-	D	-	-	D	D	A	-	-	-	-	C		
Chlorine (dry)	-	D	D	D	D	D	B ¹	D	-	D	D	A	D	A	B	A	D	D	C	D	B	A	D	A ¹	B	D	C ¹	A	D	B	D	A ¹	A ⁵	A	A ⁵	A ²	D	A	-	-	-	-			
Chloroacetic Acid	-	D	D	C ¹	D	D	-	D	D	C ¹	A	A	B ¹	A ¹	D	B	-	A ²	D	D	D	A	D	D	B ¹	A ¹	-	D	D	D	C	D	D	D	D	D	B ¹	A ⁴	A ¹	A ¹	A	-	-		
Chlorobenzene (Mono)	D	D	D	C ¹	D	C ¹	D	D	D	C ¹	A	B	D	A ¹	D	D	D	A ¹	D	D	D	A	A	A ⁴	A	B	A ¹	A	B	B	C	B	A ⁴	A ⁴	A	A ⁵	A	B	A	A	A	A			
Chlorobromomethane	-	-	-	-	-	A	-	C	-	A	-	A	D	-	D	B	D	-	D	D	-	A	-	-	-	-	-	-	-	B	-	B	-	-	-	-	-	-	-	-	-	-	-		
Chloroform	D	A	D	C ¹	D	C ¹	D	A	D	C ¹	A	A ¹	D	A	D	D	D	B ¹	D	D	B	A	A ⁴	A	A ¹	B ¹	A	B ¹	B	A	A ⁴	A ²	A	A ⁴	A ¹	A ²	A	A	A	A	A	A			
Chlorosulfonic Acid	-	D	D	C ¹	D	D	D	D	C ¹	D	D	A	D	D	D	D	D	A ²	D	D	D	C	D	D	D	D	B	D	C	D	B	D	D	A ⁴	A ¹	D	A ⁵	A ¹	A	A	A	A	-		
Chocolate Syrup	-	A	-	A	-	-	A	A	A	A ²	-	A	-	-	A	A	-	-	D	A	-	-	A	-	-	A	A	-	-	-	-	D	-	-	D	-	-	-	-	-	-	-	-	-	
Chromic Acid 5%	B	D	A	D	D	D	A ¹	D	B	D	A	A	A ²	A	D	A	B	A	B	D	C	B	A	D	B	A	D	C	D	D	B ¹	D	D	-	D	D	B	A	A	A	A	A	-	-	
Chromic Acid 10%	B	D	A ²	D	D	D	A ¹	D	B	D	A	A	A ²	A	D	C	C	A	D	D	C	C	B	D	B	B	D	D	D	D	D	D	D	-	D	D	-	D	D	B	A	A	A	-	
Chromic Acid 30%	B	D	A ¹	D	D	D	D	D	C	D	B	A	A ¹	A ²	D	B	C	A	D	D	C	B	A	D	B ²	B ²	D	D	D	D	D	D	D	-	D	D	-	D	D	A	A	A	-	-	
Chromic Acid 50%	D	D	D	D	D	D	D	D	D	D	A ¹	A	D	A ²	D	B	C	A ²	D	D	C	B	A	D	C	B ²	D	D	D	D	D	D	D	-	D	D	-	D	D	B	A ²	A ¹	A	A	
Chromium Salts	-	-	-	-	B ¹	B	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cider	-	A	-	A	B ¹	B	A	A	A	A	-	-	A	-	A	A	-	-	-	A	B ¹	-	A	-	A	A	-	B	-	-	A	D	-	-	A	-	-	-	-	-	-	-	-	A	
Citric Acid	D	B ¹	B ²	A ¹	A ¹	D	A ¹	A ¹	A ¹	A	A	A	B ²	A	A	A	C	A ²	A	A	A	-	A	-	-	B ¹	A ²	-	C	D	D	C	D	-	-	B	-	A	A ²	A	A	A	-	-	
Citric Oils	-	B	-	A	-	-	A	-	-	A	-	-	-	-	A	B	-	-	-	D	-	-	A	-	A	A	-	C	-	-	A	D	-	-	D	-	-	-	-	-	-	-	-	-	
Clorox® (Bleach)	B	D	A	D	-	-	A	A	-	D	D	A	A	A	D	B	B	D	D	B	-	B	A	-	A	A	-	A	-	-	-	D	-	-	D	-	-	A	-	-	-	-	-	-	
Coffee	-	A	A	A	-	-	A	A	-	A	-	-	-	-	A	A	A	-	A	A	-	A	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Copper Chloride	A	A	A	A	A ¹	-	A	D	-	A	A	A	A ¹	A	A	A	C	A	C	A	A ¹	A	A	-	D	D	-	-	-	D	-	-	-	-	-	D	-	-	D	-	-	-	-	-	-
Copper Cyanide	-	A	A	B ¹	-	B ²	A ¹	D	D	A	A	A	A ²	A	A	A	C	-	A	A	A	-	A	-	-	B	B	-	D	-	D	D	A	-	-	B	-	A ¹	B	A	A	A	-		
Copper Fluoborate	-	B	A ¹	A	-	-	-	-	-	-	-	-	-	-	B	-	-	-	-	A	-	-	A	-	D	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Copper Nitrate	-	A	A	A ¹	-	B ²	A ¹	D	D	A	A	A	A ²	A	A	-	-	A	C	A	-	B	A	A ⁴	A	A ²	-	D	D	D	D	D	D	A ⁴	A	D	B ²	B	A	A	A	A	-	-	
Copper Sulfate 5%	-	D	A	A	A ¹	A ²	A ¹	D	A ¹	A	A	A	A ²	A	A	A	C	A	C	A	A	-	A	-	A ¹	B	B	A ²	D	B	D	B	D	D	A ⁴	A	A ⁴	A	A	A	A	A	-	-	
Copper Sulfate >5%	-	D	A	A	A ¹	A ²	A ¹	D	A ¹	A	A	A	A ²	A	A	A	C	A	C	A	A	-	A	-	-	B	B	A ²	D	-	D	D	D	A ⁴	B	A ⁴	A	A	A	A	-	-	-	-	

Chemical Resistance Charts

Ratings -

Chemical Behavior

- A - No effect
- B - Minor effect
- C - Moderate effect
- D - Severe effect; not recommended
- No data available

D A N G E R

Variations in chemical behavior during handling due to factors such as temperature, pressure and concentration can cause equipment to fail, even though it passed an initial test.

The information in this chart has been supplied to American-Marsh Pumps by other reputable sources and is to be used **ONLY** as a guide in selection equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.

Ratings of chemical behavior listed in this chart apply to a 48-hour exposure period; American-Marsh Pumps has no knowledge of possible effects beyond this period. American-Marsh Pumps does not warrant (neither express nor implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose.

CHEMICAL	Plastics										Elastomers							Metals								Non-Metals																									
	ABS Plastic	Acetal (Delrin®)	CPVC	Epoxy	Hytrell®	LDPE	NORYL®	Nylon	Polycarbonate	Polypropylene	PPS (Ryton®)	PTFE (Teflon®)	PVC	PVDF (Kynar®)	Buna N (Nitrile)	EPDM	Hypalon®	Kel-F®	Natural Rubber	Neoprene	Silicone	Tygon®	Viton®	416 Stainless Steel	304 Stainless Steel	316 Stainless Steel	17-4 PH Stainless Steel	Aluminum	Copper	Brass	Bronze	Cast Iron	Ductile Iron/Cast Steel	CD ₄ MCu	Alloy 20	Hastelloy-B®	Hastelloy-C®	Titanium	Carbon Graphite	Ceramic Al ₂ O ₃	Ceramic Magnet										
Glue, P.V.A.	-	A	A	A	A	A ¹	-	A ¹	-	-	-	A	C	-	A	A	A	-	A	A	C	B	-	A ¹	A ²	-	A	B	-	A	A	-	A	-	A	-	A	A	A	-	A	A	-	A							
Glycerin	C	A	A	A	A	A ¹	A	A ¹	A ²	A	A	A	A	A	A	A	A	A	A	A	A	A	A	-	A ²	A	-	A	A	B	A	A	-	A	-	A	-	A	A	A	A	A	-	A							
Glycolic Acid	B	A	A	A	-	A ²	-	-	-	A	A	B	B	A	A	A	B	D	A	A	A	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Gold Monocyanide	-	A	A	A	-	-	-	-	-	-	D	-	A	-	A	-	-	-	A	-	A	A	-	A	-	-	-	-	-	-	D	-	-	A	-	-	-	-	-	-	-	-	-	-							
Grape Juice	B	A	A	A	-	B	-	A	-	-	-	A	A	A	A	A	-	D	D	A	B	A	-	A	-	A	-	-	-	A	D	-	-	C	-	-	-	-	-	-	-	-	-	-							
Grease	-	D	-	A	-	-	-	-	-	-	-	A	A	A	A	D	-	-	D	D	A	A	-	-	-	A	-	-	A	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-							
Heptane	D	A	A	A	-	B ¹	B	A	B	C ²	A	A	C ¹	A	A	D	B	A	D	B	D	B	A	A ⁴	A	A	A ⁴	A	A	A	A	A	A	A	A ⁴	A ⁴	A	A ⁴	A	A	A	A	-	-							
Hexane	D	A	B ¹	A	A	D	B	B	D	B ¹	A	A	B ¹	A	A	D	B	A	D	B	D	D	A	-	A	A	-	A	A	A	A	A	A	-	-	A	-	A	A	A	A	A	-	A							
Honey	-	A	-	A	-	B	-	A	A ¹	A	-	A	A	A	A	A	-	-	A	-	A	A	A	-	A	-	A	-	A	A	A	-	-	A	-	-	A	-	-	-	-	-	-	-	-						
Hydraulic Oil (Petro)	-	B	-	A	-	C	-	A ¹	-	D	D	A	A	A	A	D	A	-	D	A	B	A	A	-	A	A	-	A	A	A	A	A	A	A	A	A	-	-	A	-	-	-	-	-	B	-					
Hydraulic Oil (Synthetic)	-	-	-	A	-	A	-	A ¹	-	D	-	A	A	A	D	A	A	-	D	A	B	A	A	-	A	A	-	A	A	A	A	-	-	-	A	-	-	-	A	-	-	-	-	-	B	-					
Hydrazine	-	B	D	A	C	-	-	-	D	C	-	C	-	A	B	A	B	-	C	B	B	-	A	-	A	A	-	-	A	-	-	D	-	-	D	-	-	-	-	-	-	-	-	-	-	-					
Hydrobromic Acid 20%	-	C	A	B ¹	-	B ²	B	D	-	A ²	-	-	B ²	A	D	A	A	A	A	D	D	B	A	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	D	A	A	A	-	A						
Hydrobromic Acid 100%	B	D	A ²	D	-	B ¹	D	D	D	A ²	A	A	B ¹	A	D	A	A	A	D	D	B	A	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	A	A	-	A					
Hydrochloric Acid 20%	A	C	A ²	A ¹	B	A ²	A	D	B ¹	B ²	A	A	A ²	A	-	A	A	A	A	C	D	A ¹	A	D	D	D	D	D	-	D	D	D	D	A ²	A ¹	D	A	C	A	A	-	-	-	-	-	-	-				
Hydrochloric Acid 37%	A	C	A ²	A	C	B ²	A	D	D	C	A	A	B	A	B	C	B	A	A	B	B	A ¹	A	D	D	D	D	D	-	D	D	D	D	D	A ²	B	D	A	C	A	A	-	-	-	-	-	-	-			
Hydrochloric Acid 100%	A	C	A	-	-	A	D	D	B ¹	A ¹	A	D	A	D	D	D	A	D	D	D	A ¹	A	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	A	A	A	-	-	-					
Hydrochloric Acid, Dry Gas	-	-	A	A	-	A ²	A	A ¹	-	B	A	A	A ²	A	-	-	-	A	-	-	-	-	-	D	D	D	D	D	D	D	A	-	D	D	D	D	D	A	C	A	A	-	-	-	-	-	-	-			
Hydrocyanic Acid	B	B	A	A	C	A ²	A ¹	B	-	A	B	A	B	A	B	B	A	-	B	B	C	B	A	-	B ¹	A	-	A	D	D	A	D	-	-	D	-	-	D	-	A	B	A	-	-	-	-	-				
Hydrocyanic Acid (Gas 10%)	-	C	A	-	-	-	C	-	B ¹	A	-	A	-	A	-	B	A	-	-	B	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Hydrofluoric Acid 20%	C	D	C ¹	A	-	A ²	C ¹	C ¹	D	A ²	A	A	B	A	D	D	B	B	B ¹	B	D	C	A	D	D	D	D	D	B	-	B ²	D	D	D	D	D	D	D	D	D	D	B	D	A	-	B					
Hydrofluoric Acid 50%	C	D	C ¹	C ²	D	A ¹	D	D	D	A ²	A	A	B ¹	A	D	D	B	B	B ¹	D	D	C	B	D	D	D	D	D	B	-	B ²	D	D	D	D	D	D	D	D	D	D	B	D	A	-	B					
Hydrofluoric Acid 75%	C	D	C ¹	B ¹	D	C ¹	D	D	D	C ¹	B	A	C	A	D	C	B	B	D	D	D	C	B	D	D	D	D	D	B	-	B ¹	D	D	D	D	D	D	D	D	D	D	B	D	A	C	B					
Hydrofluoric Acid 100%	D	D	C ¹	-	D	-	D	D	D	C ²	D	A	C	A	D	D	B	A	D	D	D	D	B	D	B ¹	B ¹	D	D	B	-	B ¹	D	D	D	D	D	D	D	D	D	D	B	D	-	-	B					
Hydrofluosilicic Acid 20%	-	B	A	C ¹	-	B ²	D	D	-	A	A	A	A ²	A	A	B	A	A	B	D	A	A	-	C ²	B ¹	-	D	B	-	B ²	D	-	-	D	-	-	D	-	B	D	A	-	-	-	-	-					
Hydrofluosilicic Acid 100%	-	A	-	C ¹	-	B ¹	B ²	D	-	A	A ¹	A	B ¹	A ¹	B	A	B	B	A	B	D	D	A	-	D	D	-	D	-	B ²	D	-	-	D	-	-	D	-	B	D	A	-	-	-	-	-	-				
Hydrogen Gas	-	-	A ²	-	A	A ²	A ¹	A ²	A ²	A	A	A	A ²	A	A	A	B	B	A	C	A	A	-	A	A	-	A	A	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-				
Hydrogen Peroxide 10%	A	D	A	C ¹	-	A	A ²	C ¹	A ²	A	A	A	A ¹	A	D	A	D	B	A	D	A	B	A	D	B ²	B	D	A	D	-	B ¹	C	D	A ⁴	C	D	A	A	C	-	-	-	-	-	-	-	-				
Hydrogen Peroxide 30%	-	D	A	B	-	C ²	A ²	D	A ²	B ¹	A ¹	A	A ¹	A	D	B	D	B	C	D	B	B	A	D	B ²	B	D	A	D	-	B ¹	B	D	A ⁴	B	D	A	A	B ¹	C	-	-	-	-	-	-	-	-			
Hydrogen Peroxide 50%	-	D	A	-	-	C ²	-	D	A ²	B ¹	-	A	A ¹	A ¹	D	B	D	A	C	D	B	B	A	D	B ²	A ²	A ¹	A	D	-	B ¹	-	D	A ⁴	B	D	A	A	C	-	-	-	-	-	-	-	-	-			
Hydrogen Peroxide 100%	A	D	A	A	-	C ²	A	D	A	B ¹	C	A	A	A ¹	D	D	D	B	C	D	B	B	A	D	B ²	A ²	-	A	D	D	B ¹	B	D	-	D	D	A	B	C	A	A	-	-	-	-	-	-	-	-		
Hydrogen Sulfide (aqua)	B	C	A	A	-	A	A ¹	C ¹	A	A ¹	A	A	B ¹	A	D	B	D	A ¹	C	A	C	A	D	D	C	A	D	B	-	A	D	A ¹	A ⁵	D	A ³	A	B	A	A	A	-	-	-	-	-	-	-	-			
Hydrogen Sulfide (dry)	-	-	A	A	A	A	-	C ¹	-	A ¹	A	A	A ²	A	D	B	B	B	C	A	C	D	D	C	A	D	B	D	D	B	D	A ¹	A ⁵	D	A ³	A	A	A	-	-	-	-	-	-	-	-	-	-			
Hydroquinone	D	A	A	-	-	A	-	D	-	A	-	A	B	-	D	D	D	-	A	-	-	B	-	B	B	-	B	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Hydroxyacetic Acid 70%	-	A	A	A	-	-	-	-	-	-	-	A	D	A	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Ink	A	B	-	A	-	-	-	C	-	-	-	A	C	A	A	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Iodine	D	D	D	C	B	A ¹	C ¹	A	-	C	D	A	A	A ²	B	B	D	A	D	D	-	-	A	-	D	D	-	A	D	-	A	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Iodine (in alcohol)	-	D	-	-	-	B	-	C	-	-	-	-	-	A	A	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Iodoform	-	-	-	-	-	-	-	-	-	-	-	-	C	A	C	D	A	-	-	B	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isooctane	-	-	-	A ²	A	B	D	A ¹	B ¹	A ²	A	A	A	A ²	A ²	D	-	-	A ¹	A ¹	B ¹	D	A ¹	A ¹	-	A ¹	A ¹	-	A ¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl Acetate	-	D	-	A	C	B ¹	-	B ¹	D	B ¹	-	A	D	D	D	B	D	-	D	D	-	D	-	D	-	D																									

Chemical Resistance Charts

- Ratings -**
Chemical Behavior
A - No effect
B - Minor effect
C - Moderate effect
D - Severe effect; not recommended
- No data available

DANGER

Variations in chemical behavior during handling due to factors such as temperature, pressure and concentration can cause equipment to fail, even though it passed an initial test.

The information in this chart has been supplied to American-Marsh Pumps by other reputable sources and is to be used **ONLY** as a guide in selection equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.

Ratings of chemical behavior listed in this chart apply to a 48-hour exposure period; American-Marsh Pumps has no knowledge of possible effects beyond this period. American-Marsh Pumps does not warrant (neither express nor implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose.

CHEMICAL	Plastics					Elastomers					Metals					Non-Metals																												
	ABS Plastic	Acetal (Delrin®)	CPVC	Epoxy	Hytrel®	LDPE	NORYL®	Nylon	Polycarbonate	Polypropylene	PPS (Ryton®)	PTFE (Teflon®)	PVC	PVDF (Kynar®)	Buna N (Nitrile)	EPDM	Hypalon®	Kel-F®	Natural Rubber	Neoprene	Silicone	Tygon®	Viton®	416 Stainless Steel	304 Stainless Steel	316 Stainless Steel	17-4 PH Stainless Steel	Aluminum	Copper	Brass	Bronze	Cast Iron	Ductile Iron/Cast Steel	CD ₄ M/Cu	Alloy 20	Hastelloy-B®	Hastelloy-C®	Titanium	Carbon Graphite	Ceramic Al ₂ O ₃	Ceramic Magnet			
Nickel Chloride	A	A	A	A	-	A	A ¹	C ¹	A ²	A	A	A	A	A	A ¹	A ¹	A	A	A	B	A	B	A	D	D	C	D	D	-	D	B ¹	D	D	-	D	A ⁴	B	A	A	A	-			
Nickel Nitrate	A	A	A ²	A ¹	-	A	A ²	A ¹	D	A ²	-	A ²	A	A ²	A ¹	A ²	D	A ²	A ²	A ²	-	A ²	A ²	A ²	A ²	B	B ¹	-	D	-	A ²	C	D	A ⁴	-	D	B ²	-	A	A	-			
Nickel Sulfate	B	A	A	A	-	A	A ¹	A ¹	A	A	-	A	A	A	A ¹	A ¹	A	A	B	A	A	A	A	A ⁴	B	B ¹	-	D	-	D	B	D	D	A ⁴	C	-	B	B	A	A	-			
Nitric Acid (≤1% Acid)	-	-	-	-	-	-	-	-	-	C	C	A	D	-	-	-	-	-	C	A	-	D	-	-	C	A	-	D	-	-	-	-	-	D	-	A	-	-	-	-	-			
Nitric Acid (≤15% H ₂ SO ₄)	-	-	-	-	-	-	-	-	-	C	C	A	D	-	-	-	-	-	C	A	-	D	-	-	C	C	-	D	-	-	-	-	-	A	-	D	-	A	A	-	-			
Nitric Acid (≤15% HNO ₃)	-	-	-	-	-	-	-	-	-	C	C	A	D	-	-	-	-	-	C	A	-	D	-	-	C	D	-	D	-	-	-	-	-	C	-	D	-	A	C	-	-			
Nitric Acid (5-10%)	B	D	A	A ¹	C	B	A	D	A	A	B ¹	A	A ¹	A ¹	D	A ¹	B	A ¹	D	B	C	D	A	-	A	A	-	A	C	D	A ¹	D	D	-	D	-	A ¹	A ¹	A	A	-			
Nitric Acid (20%)	B	D	A ²	B ¹	D	C	B ²	D	B ¹	A ²	C	A	A ¹	A ¹	D	A ¹	D	A ¹	D	D	D	D	A	A ²	A	A ²	D	D	D	A ¹	D	D	A ⁵	D	D	A ¹	A ¹	A	A	-				
Nitric Acid (50%)	C	D	B ¹	D	D	B ¹	B ²	D	B	B	C	A	B ¹	A ¹	D	D	D	A	D	D	D	A	A ²	A ²	A ¹	-	D	D	A ¹	D	D	A ⁵	D	D	A ¹	A ¹	D	A	C	-				
Nitric Acid (Concentrated)	D	D	D	D	D	C ¹	B ¹	D	C ¹	D	C	A	B ¹	A ¹	D	D	D	A ¹	D	D	D	A	D	A ¹	A ¹	D	D	D	A ²	D	D	D	D	D	B ¹	A ¹	D	A	C	-				
Nitrobenzene	D	C	D	C ¹	D	C ¹	D	B ¹	D	B ¹	A ²	A	D	A ¹	D	B ¹	D	A ¹	D	D	D	D	B	A ⁴	B	B	-	B	B	-	A	C	A ⁵	A ⁵	C	D	D	A	B	-				
Nitrogen Fertilizer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Nitromethane	D	A	-	-	C	A	D	B ¹	D	B ²	A ²	A	B ²	A ²	D	B ²	-	A	B ¹	D	D	B ²	D	-	A	A ¹	-	A	A	-	-	-	-	-	-	-	-	-	-	-	A ²	-		
Nitrous Acid	D	-	A	D	-	-	-	-	-	A	-	A	A	B	-	A	-	B	C	D	-	A	B	-	B	B ²	-	D	C	D	B	-	-	-	A	-	D	-	-	-	-	-		
Nitrous Oxide	-	-	-	-	-	C	-	C	-	D	-	A	A	D	-	A	-	-	A	A	-	A	B	-	B	B	-	B	B	B	D	-	-	-	B	-	B	-	C	-	-			
Oils:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Aniline	D	D	-	A	D	-	D	A	-	A	-	A	D	A	D	B	D	-	D	D	D	C	-	A	A	-	D	D	D	A	A	-	-	A	-	A	-	B	D	-	-			
Anise	-	D	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	-	-	-	-	-	A	-	-	-	-	-	A	-	-	A	-	-	-	-	-	-			
Bay	-	D	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	-	-	A	-	-	A	-	-	-	-	-	A	-	-	A	-	-	-	-	-	-			
Bone	-	D	-	A	-	-	-	-	-	A	-	A	-	A	A	-	-	-	D	-	A	A	-	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Castor	A	A	C	A	B ¹	-	-	A	-	A	-	A	A	A	B	B	A	-	A	A	A	A	A	-	A	A	-	A	A	-	-	-	-	-	A	-	-	-	-	-	-	-		
Cinnamon	-	D	-	A	-	D	-	-	D	D	-	A	D	-	-	-	-	-	-	C	-	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Citric	D	A	-	A	-	A	A	A	A	A	-	A	B	A	D	B	-	-	-	D	-	D	A	-	A	A	-	A	-	B	-	D	-	-	D	-	A	-	-	-	-			
Clove	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	A	-	A	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Coconut	A	A	A ¹	A	-	A	-	-	-	A ¹	-	A	A ¹	A	A	D	C	-	D	C	A	A	A	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Cod Liver	A	B	A ¹	A	-	-	-	-	-	A ¹	-	A	A ¹	A	A	A	B	-	D	B	B	-	A	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Corn	B	A	-	A	A	A	A	-	A ²	-	A	B	A	D	C	B	-	D	A	A	B	B	A ⁵	A	A	A ⁵	A	B	-	-	-	-	-	A	A ⁵	A ⁵	C	A ⁵	A	-	-			
Cottonseed	A	A	A	A ¹	A ¹	A	A	B	-	A	A	B ²	A	A	D	B	A ²	D	C	A	B	A	-	A	A	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-			
Creosote	-	D	-	A	D	C	D	D	-	C	-	A	C	-	D	D	D	A	D	C	D	-	A	-	B	B	-	B	-	-	-	-	-	-	-	-	-	C	-	B	A	A		
Diesel Fuel (20,30,40,50)	-	D	-	A ¹	A ¹	A	D	A	-	A ¹	A	A	B	A	A	D	B	A ¹	D	B	D	A	A	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Fuel (1,2,3,5A, 6)	D	D	-	A ¹	A	B	A ¹	A	B	B	A	A	A ²	B	D	D	A	D	D	C	A	B	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Ginger	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Hydraulic Oil (Petro)	-	B	-	A	-	C	-	A ¹	-	D	D	A	A	A	D	A	-	D	A	B	A	A	-	A	A	-	A	A	-	A	A	A	-	-	-	-	-	-	-	-	-	B	-	
Hydraulic Oil (Synthetic)	-	-	-	A	-	A	-	A ¹	-	D	-	A	A	A	D	A	A	-	D	A	B	A	A	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B	-
Lemon	C	D	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	-	-	A	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Linseed	-	A	C	A	B ¹	A	A ¹	A ¹	-	A	B	A	A ²	A	A	D	C	-	D	D	A	A	A	-	A	A	-	B	B	B	A	-	-	-	-	-	-	-	-	-	-	-	-	
Mineral	A	A	A	A	A	B ¹	A ¹	A	B	A	A	A	B	A	A	D	B	A	D	B	C	B	A	-	A	A	-	A	B	A	A	-	-	-	-	-	-	-	-	-	-	-	-	
Olive	A	A	C	A	-	A ¹	A ²	A ¹	A ²	A	-	A ¹	C	-	D	D	B	-	D	B	D	B	A	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Orange	-	D	-	A	-	C ¹	-	-	-	C ¹	A	-	-	-	-	-	-	-	-	C	D	-	A	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Palm	A	A	A	A	-	A	-	-	-	-	-	A	A	A	A	A	-	-	-	D	-	-	A	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Peanut	-	A	C	A	-	A	-	-	-	D	-	A	A ¹	A	A	D	B	-	D	B	A	A	A	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Peppermint	D	D	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Pine	D	A	A	A	-	D	-	A	A	B	-	A	D	A	D	D	D	-	D	D	D	D	A	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rapeseed	-	A	A	A	-	D	-	-	-	D	-	A	-	A	D	A	D	-	D	B	D	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rosin	-	-	-	A	-	B ²	-	A ¹	-	A ²	-	A	C ¹	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sesame Seed	A	D	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	-	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Silicone	A	A	A	A	A	A	A ¹	A ¹	-	A	A ¹	A	A	A	A	A	-	-	D	C	A	A	-	A	A	-	A	-	-	-														

Chemical Resistance Charts

Ratings -

Chemical Behavior

- A - No effect
- B - Minor effect
- C - Moderate effect
- D - Severe effect; not recommended
- No data available

DANGER

Variations in chemical behavior during handling due to factors such as temperature, pressure and concentration can cause equipment to fail, even though it passed an initial test.

The information in this chart has been supplied to American-Marsh Pumps by other reputable sources and is to be used **ONLY** as a guide in selection equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.

Ratings of chemical behavior listed in this chart apply to a 48-hour exposure period; American-Marsh Pumps has no knowledge of possible effects beyond this period. American-Marsh Pumps does not warrant (neither express nor implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose.

CHEMICAL	Plastics						Elastomers						Metals					Non-Metals																																				
	ABS Plastic	Acetal (Delrin®)	CPVC	Epoxy	Hytrel®	LDPE	NORYL®	Nylon	Polycarbonate	Polypropylene	PPS (Ryton®)	PTFE (Teflon®)	PVC	PVDF (Kynar®)	Buna N (Nitrile)	EPDM	Hypalon®	Kel-F®	Natural Rubber	Neoprene	Silicone	Tygon®	Viton®	416 Stainless Steel	304 Stainless Steel	316 Stainless Steel	17-4 PH Stainless Steel	Aluminum	Copper	Brass	Bronze	Cast Iron	Ductile Iron/Cast Steel	CD ₄ MCu	Alloy 20	Hastelloy-B®	Hastelloy-C®	Titanium	Carbon Graphite	Ceramic Al ₂ O ₃	Ceramic Magnet													
Rum	-	A	A	A	-	-	A	A	-	A	-	-	A	-	A	A	A	-	A	A	-	A	-	A	A	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
Rust Inhibitors	-	A	-	A	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	C	-	-	-	-	A	-	A	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Salad Dressings	-	A	-	A	-	-	A	A	-	A	-	-	-	-	A	-	-	-	-	-	-	-	A	-	A	-	B	-	-	-	C	-	-	B	-	-	-	-	-	-	-	-	-	-	-	-								
Salicylic Acid	A	D	-	-	-	B ²	-	A ¹	A ¹	A ¹	-	A ²	B ¹	A	B	A	A	A ¹	A	-	-	B ¹	A ¹	-	B ²	B ²	-	B ²	A	-	A	-	-	B	-	-	A ²	A ¹	A ²	-	-	-	-	-	-									
Salt Brine (NaCl saturated)	-	-	A ²	A	A ¹	A	A	A	A	A	A	A ²	A	A	A	A	A ²	-	A	A ²	A ¹	-	A ²	-	B ¹	A ²	-	B ¹	B	-	B ²	D	-	-	B	-	A ²	A ²	A ²	-	-	-	-	-	-	-								
Sea Water	-	A	A	A	A	A ²	A ¹	A ²	A ²	A	A	A	A ²	A	A ²	A ²	A ²	A	A	A ¹	B ²	A ¹	-	A	-	C	C	-	B	B	D	A	D	-	-	A	-	A	A	A	-	-	-	-	-	-								
Shellac (Bleached)	-	A	-	A	-	A ¹	-	A ¹	-	A	-	-	-	-	A ²	A ²	A	-	A ¹	B ²	-	-	-	A	-	A	-	A	A	B	A	A	-	-	A	-	-	-	-	-	-	-	-	-	-	-								
Shellac (Orange)	-	A	-	A	-	A ¹	-	A ¹	-	A	-	-	-	-	A	A	-	-	D	D	-	-	-	A	-	A	-	A	A	B	A	A	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-							
Silicone	D	A	A	A	-	A ¹	A ¹	A ²	A	A ¹	A	A	A	A	A	A	-	C	A	C	-	-	-	A	-	A	-	A	A	-	-	A	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-							
Silver Bromide	-	C	-	A	-	A	A	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	D	D	-	D	-	D	-	D	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-							
Silver Nitrate	B	A	A ¹	A	-	A	A	A ¹	A ²	A ¹	A	A	A ¹	A	B	A	A	A	A	A	B	A	A	A ⁴	B	B	-	D	-	-	B	C	D	B ⁴	C	C ⁴	A	A	A	-	-	-	-	-	-	-	-	-						
Soap Solutions	A	A	A	A	A	D	A ¹	A ¹	A ¹	A	A	A	A ¹	A	A	A	-	B	B	A	B	A	-	A	A ¹	-	C	A	B	B	A	-	-	A	-	-	A	A	A	A	A	A	A	A	A	A	A							
Soda Ash (see Sodium Carbonate)	B	A	A	C	B	B	A	B	A	A	A	A	A	A	A ¹	A ²	A	-	A	A ¹	A	-	A	-	A	-	D	-	-	B	B	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-							
Sodium Acetate	B	B	A	A	-	A	A ¹	B ¹	A ¹	A	A	B	A ¹	A	B	A	-	A	A	B	D	-	D	A ⁴	B	B ¹	A ⁴	B	A	B	B	A	B	A ⁴	A ⁴	A	A ⁴	A	A	A	A	A	A	A	A	A	-	-						
Sodium Aluminate	-	B	-	A	-	-	A	A ¹	-	-	A	A	-	-	A	A	A	-	B	A	-	-	-	-	A	-	A	-	-	-	-	A	A	C ⁴	-	B	-	B	A	A	-	-	-	-	-	-	-	-	-					
Sodium Benzoate	A	-	A ²	A ²	-	A ²	-	B ¹	A ²	A ²	-	A ²	B ²	A ²	A	B	-	A	A ¹	-	B ¹	A ¹	-	-	-	-	A ¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Sodium Bicarbonate	A	A	A ²	A	-	A ²	A	A ²	A	A ²	A	A	A ²	A	A ¹	A ²	A	A	A	A	B	A	-	A	-	A	-	D	B	D	A	C	C ⁴	A ⁴	A	-	B ¹	A ²	A	A	A	A	A	A	A	A	A	A	A					
Sodium Bisulfate	A	B	A ²	A	C	A ²	A ¹	A ¹	A ¹	A	A	A	A ²	A	B ²	A ²	A	A ²	A	A	B	A	A	A ³	D	C	D	B	D	B	D	A ²	D	D	A ⁴	C	A ⁴	C	A ⁴	B ²	A	A	A	A	A	A	A	-	-					
Sodium Bisulfite	A	C	A ²	A	B	A ²	A ²	C ¹	A ¹	A	A	A	A ²	A	A ²	A ²	A	-	A	A	B	A	D	B ¹	B ¹	D	D	B	-	B ¹	D	D	A ⁴	B	-	B	A	A	A	A	A	A	A	A	A	A	-	-						
Sodium Borate (Borax)	A	-	A ²	A	B	A ²	A ¹	A ¹	A ¹	A ²	A	A	A ²	A	A ¹	A	-	A	A	-	-	-	-	B ²	B	-	C	B	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Sodium Bromide	B	A	A ²	A	-	A ²	A ²	B ¹	-	-	-	A ²	B ²	A ²	-	A	B	A ¹	A ¹	A ¹	-	B ²	A ¹	-	D	C	C	D	D	-	A	C	D	-	B	-	-	-	A ¹	A ²	-	-	-	-	-	-	-	-	-					
Sodium Carbonate	B	A ¹	A ²	C ¹	-	B ²	A	B ¹	A ²	A	A	A	A ²	A	A ²	A	A	A	A	A	B	A	A	A	B	A	-	A	-	D	A	B	A ²	B	C ⁴	-	B	-	-	A	A ¹	A	A	A	A	A	A	A						
Sodium Chlorate	A	A	A ¹	A	-	B ²	A ¹	D	A ¹	A	A	A	A ¹	A	B	A	A	-	A	C	B	A	-	A	B ¹	-	C ¹	B	-	B ¹	-	D	-	B	-	B ¹	A	C	A	-	-	-	-	-	-	-	-	-	-	-				
Sodium Chloride	A	A ¹	A ²	A	A	A ²	-	A ¹	A ²	A	A	A	A ²	A	A	A	A	A	A	A	B	A	-	B	B	-	C	B	D	B	D	B ²	A ⁴	B	-	A	A	A	A	A	A	A	A	A	A	A	A	-	-					
Sodium Chromate	-	D	-	C	-	-	A	C	A ²	-	A	A	-	A	-	C	A	B	A	-	-	-	-	-	B ¹	B	-	B	B	-	B	A	-	-	B	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-				
Sodium Cyanide	A	A	A ²	A	B	A ²	A ¹	A ¹	-	A	A	A	A ²	A	A ²	A	A	A	A	A ¹	A	-	A ²	-	A ¹	B ¹	A ¹	D	D	D	D	A	A ⁴	A ⁴	A	A ²	A	A	A	A	A	A	A	A	A	A	A	A	-	-				
Sodium Ferrocyanide	-	A	A	A	-	A	A	-	-	A	-	A	A	A	A	B	-	B	A	-	A	A	A	-	B	B	-	A	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sodium Fluoride	A	-	A ²	A	-	A ²	A ²	B	-	A	-	A ¹	A ²	A	A ¹	A	B	-	A	-	D	A	D	D	D	B	D	-	A	C	D	-	C	A ⁴	A	A	A	A	A	A	A	A	A	A	A	A	A	A	-	-				
Sodium Hydrosulfite	-	-	C	-	-	-	-	A	-	-	-	-	A	C	B	B	-	C	B	C	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Sodium Hydroxide (20%)	B	A	A	A ²	B	D	A	A	A ²	A	A	A	A	A	A	B	A	A	A ¹	B ²	A ²	A ¹	B ¹	A ⁴	B	B ²	A ²	D	A ²	B	B	A ²	-	A ⁵	A ²	A ⁴	B	A ¹	A ²	A	-	-	-	-	-	-	-	-	-	-				
Sodium Hydroxide (50%)	A	A	A	A	C	D	A	A	D	A	A	A	D	A ¹	B ¹	A	B	A ¹	B ²	A ¹	A ¹	B ¹	-	B	B ¹	A ²	D	B	D	C	D	A ²	A ⁵	B ²	A ⁴	C	B	-	-	-	-	-	-	-	-	-	-	-	-	-				
Sodium Hydroxide (80%)	A	D	A	A ¹	-	D	A	C	D	A	A	A ¹	A	D	D	B ¹	A ²	A	A ¹	B ¹	A ¹	A ¹	B ¹	-	C	B ¹	-	D	D	C	D	-	A ⁵	D	A ⁴	A ¹	D	A ²	A	C	A	C	-	-	-	-	-	-	-	-	-	-	-	
Sodium Hypochlorite (100%)	-	D	C ²	D	D	B ²	A	D	-	B	A	A	B	A	D	B ¹	B	A	C	C	B	-	A ¹	D	D	D	D	D	-	D	C	D	D	D	D	D	D	D	B	C	C	A	A	-	-	-	-	-	-	-	-	-		
Sodium Hypochlorite (<20%)	B	D	A	C	A	A	A	D	C	A	A	A	A	A	B	B	A	A	C	C	B	C	A	D	C	C	D	D	-	D	C	D	D	D	D	D	D	A	C	B	A	A	A	A	A	A	A	-	-	-	-	-	-	
Sodium Hyposulfate	-	-	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sodium Metaphosphate	-	B	A ¹	A	-	A ¹	-	A ¹	-	A ¹	-	A	A	A	A	B	-	A	B	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sodium Metasilicate	-	D	A	A	-	-	-	-	-	A	-	-	-	-	A	A ¹	B	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium Nitrate	-	A	A	A	-	A ²	A ¹	A ¹	-	A	A	A	A ²	A																																								

Chemical Resistance Charts

- Ratings - Chemical Behavior**
- A** - No effect
 - B** - Minor effect
 - C** - Moderate effect
 - D** - Severe effect; not recommended
 - No data available

DANGER

Variations in chemical behavior during handling due to factors such as temperature, pressure and concentration can cause equipment to fail, even though it passed an initial test.

The information in this chart has been supplied to American-Marsh Pumps by other reputable sources and is to be used **ONLY** as a guide in selection equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.

Ratings of chemical behavior listed in this chart apply to a 48-hour exposure period; American-Marsh Pumps has no knowledge of possible effects beyond this period. American-Marsh Pumps does not warrant (neither express nor implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose.

CHEMICAL	Plastics						Elastomers						Metals						Non-Metals																								
	ABS Plastic	Acetal (Delrin®)	CPVC	Epoxy	Hytrel®	LDPE	NORYL®	Nylon	Polycarbonate	Polypropylene	PPS (Ryton®)	PTFE (Teflon®)	PVC	PVDF (Kynar®)	Buna N (Nitrile)	EPDM	Hypalon®	Kel-F®	Natural Rubber	Neoprene	Silicone	Tygon®	Viton®	416 Stainless Steel	304 Stainless Steel	316 Stainless Steel	17-4 PH Stainless Steel	Aluminum	Copper	Brass	Bronze	Cast Iron	Ductile Iron/Cast Steel	CD ₄ MCu	Alloy 20	Hastelloy-B®	Hastelloy-C®	Titanium	Carbon Graphite	Ceramic Al ₂ O ₃	Ceramic Magnet		
Styrene	-	A	D	A	D	-	A	A ¹	D	-	-	A	D	-	D	D	D	-	D	D	-	B	A ¹	A	A	A ¹	A	B	A	A	A	A ²	A ⁴	A	A ¹	D	-	A	-	-			
Sugar (Liquids)	B	A	-	A	-	-	A ²	A ¹	-	A	-	A	-	-	A	A	A	-	A	A	B	A	-	A	A	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-		
Sulfate (Liquors)	-	D	B	A	-	A ²	-	B ¹	-	A	-	A	B	A	A ²	A	B	-	B	B	-	A ¹	-	B	B	-	D	D	-	B	C	-	-	D	-	B	-	A	-	-	-		
Sulfur Chloride	-	B	C ¹	C	-	C ¹	A	A ¹	-	C ¹	-	A	C ¹	A ¹	D	D	-	A	D	D	C	C	A	A ¹	D	D	D	D	B	D	B	D	A ⁴	A ⁵	D	A ⁴	A	D	D	-	-		
Sulfur Dioxide	D	B	A ²	A	C	B ¹	A	C ¹	-	A ¹	A	A	A ¹	A	D	A ²	C	A	-	B	C	A	-	D	A ¹	-	B	B	D	B	-	-	-	B	-	C	A	A	-	-			
Sulfur Dioxide (dry)	-	B	A ²	A ¹	C	A ¹	A	A	B ¹	A ¹	A ¹	A	A	A ²	A	D	A ²	-	A	C	D	B	C	A	-	D	A	-	B	A	D	B	A	-	-	A	-	B	A	-	-		
Sulfur Hexafluoride	-	-	-	-	-	B	-	B	-	-	-	-	B	-	B	B	-	D	A	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sulfur Trioxide	-	-	A	A	-	-	D	D	-	C	-	A	A	-	D	C ²	D	-	C	D	B	A	A	-	A	C	-	A	-	D	C	B	-	-	A	-	-	-	-	B	-	-	
Sulfur Trioxide (dry)	-	D	A	A	-	C ¹	D	A ¹	-	D	-	A	A ¹	C ¹	D	C ¹	-	-	-	D	B	C	A	-	D	A	-	A	B	A	B	A	-	-	B	-	-	-	-	D	-	-	
Sulfuric Acid (<10%)	B	D	A	A ¹	A	A ¹	A	C ¹	A	A	A ¹	A	A	A ¹	A	A	A	A ¹	A	A	A	A ¹	B ²	C	B	A	D	D	B	D	-	B	C	D	-	D	-	B ¹	D	A ¹	A	-	
Sulfuric Acid (10-75%)	B	D	A	A ¹	-	A ¹	A	D	B ¹	A ¹	A	A	A ¹	A	B ¹	B ²	B	A	C	B ¹	D	-	A ²	D	D	D	D	-	-	B	D	D	-	A ²	-	B ¹	D	A ¹	A	-			
Sulfuric Acid (75-100%)	-	-	C	C ¹	C	B ¹	A	D	D	C ¹	A ¹	A	D	A	C	B ¹	C	A	D	D	D	D	A ¹	D	C	D	D	D	D	-	B	D	D	A ²	A ²	A ⁴	B ¹	D	C ¹	A	A		
Sulfuric Acid (cold concentrated)	-	-	D	D	B	C	A	D	-	A ²	A ¹	A	D	A	D	C	C	A	D	D	D	D	A ²	D	C	B	D	B	-	-	B	D	-	-	A ²	-	A ¹	D	D	-	-		
Sulfuric Acid (hot concentrated)	-	-	D	D	-	D	D	D	D	D	D	A	D	C	D	D	D	A	D	D	D	D	A ²	D	D	C	D	D	-	-	B	D	-	-	D	-	D	-	D	D	A	-	
Sulfurous Acid	-	C	A ²	A	-	B ²	A	D	-	A	A	A	A ²	A	B ¹	B	A	A	B	C	D	B	A	D	B ¹	B	-	B ¹	D	-	B	D	D	-	D	D	B	A	A	-	-		
Sulfuryl Chloride	-	A	-	A	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Tallow	-	A	-	A	-	C	A	A ¹	-	A ²	-	A	-	-	A	A	C	-	-	B	-	-	A	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-		
Tannic Acid	-	B	A ¹	A	A	B ²	A ²	C ¹	C	A	A	A	A ¹	B	A	A	A	A	A	A	B	B	A	-	B ¹	A	-	C	A	B	B	C	-	-	A	-	B ¹	A	A	A	A		
Tanning Liquors	-	B	A ¹	A	-	A ¹	A ²	A ¹	-	A ¹	-	A	A ¹	-	B ¹	B	B	-	C	A	B	B	A	-	A ²	A ²	-	A	-	-	A ²	-	-	-	A	-	B	A	A	-	-		
Tartaric Acid	-	B	A ¹	A	C	A ¹	A ¹	B ²	-	A	A	A	A ¹	B	A	B	A	A ²	A	A ²	A	B	A	-	C ²	C ²	-	B ¹	A	D	B ¹	C	D	A ⁴	A	A ⁴	B	A ¹	A	A	A		
Tetrachloroethane	-	A	C	A	-	-	D	C ¹	-	C	-	A	C	A	D	D	D	A	D	D	-	A	-	B	A	-	C	A	-	-	A	-	-	-	-	-	-	-	-	-	-	-	
Tetrachloroethylene	-	A	D	-	-	B	D	A ¹	D	D	-	A	D	-	D	D	D	A	D	D	D	-	A	-	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tetrahydrofuran	-	A	D	A	B	C ¹	D	A	D	C ²	A	A	D	B ¹	D	D	D	A ¹	D	D	D	-	D	-	-	A	A	-	-	-	-	A	-	-	-	D	-	A	B	A	A	-	
Tin Salts	-	-	-	-	-	-	-	-	-	-	-	A	A	A	A	B	A	-	A	-	B	A	A	-	-	D	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Toluene (Toluol)	D	C ¹	D	B ¹	B	C ¹	D	A ¹	D	C ¹	A	A	D	A ¹	D	D	D	B ²	D	D	D	C	A ⁴	A	A	A ⁴	A	A	A	A	A	A ⁴	A ⁴	A	A	A	A	A	A	A	A		
Tomato Juice	B	B	-	A	-	A ¹	A	A ¹	A ¹	A	A	A	A	A	A	A	-	A	-	A	-	-	A	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-		
Trichloroacetic Acid	-	-	-	D	-	A	-	C	D	A	A	A	B	B	-	B	-	A	C	D	D	C	C	-	D	C	-	C	D	-	-	D	-	-	-	-	-	B	D	A	A	-	
Trichloroethane	-	A	-	A	-	-	D	C ¹	D	C	-	A	C	A	D	D	D	A	D	D	D	-	A	-	B	B	-	D	-	A	B	-	-	A	-	-	-	-	-	-	-	-	-
Trichloroethylene	D	D	C ¹	C	D	D	C ¹	-	C ¹	A ¹	A	D	B	D	D	D	A	D	D	D	-	A	-	B	B	-	D	A ¹	-	B	C	A ⁴	A ⁴	A ⁴	A ⁴	A	A	A	A	A	A	A	-
Trichloropropane	D	A	-	A	-	-	D	-	-	-	-	A ¹	-	-	D	-	-	A	D	A	-	D	A	-	A	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tricresylphosphate	B	C	D	A	-	B ¹	A	A ²	-	A ¹	-	A	D	D	D	A	D	-	B	C	C	D	A ²	-	B	B	-	D	B	-	A ²	B	-	-	-	-	-	-	-	-	-	-	
Triethylamine	-	D	A	A	-	-	B	A ¹	-	D	-	A	B	A ²	C	A	-	A	B	A	-	A	D	-	A	A	-	-	A ¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trisodium Phosphate	B ¹	A	A	A	A	A	A	A	-	A	A	A	A	A	A	A	-	-	A	A	A	A	A	-	B	B	-	D	B ¹	-	A	-	-	-	-	-	-	-	-	-	-	-	-
Turpentine	D	A ²	A	B	-	D	D	B	D	D	A	D	A	-	-	D	D	A	D	D	B	A	-	A	-	A	-	A	B	D	A	-	-	-	-	-	C	-	B	B	A	A	
Urea	B	A	A	-	-	A	A	A	D	A	A	A	D	A	B	A	-	-	-	B	B	B	A	-	B	B	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Uric Acid	-	-	-	-	-	B	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	B	B	-	D	A	-	B	D	-	-	-	-	-	-	-	-	-	-	
Urine	-	A	A	A	-	A ²	A ²	B	-	A	-	A ¹	A	A	A ¹	A ¹	-	-	D	D	-	-	A ¹	-	A	A	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Varnish	-	A	-	A	-	A	D	A	-	A	-	A	D	-	B	D	D	A	D	D	D	A	-	A	A	-	A	B	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegatable Juice	B	A	-	A	-	-	A	A	-	-	-	A	-	-	A ²	A	-	-	-	-	B	A	A	-	A	A	-	D	A	A	D	-	-	-	-	-	-	-	-	-	-	-	-
Vinegar	A	B	A	A	-	A	A ¹	A	A ²	A	A	A	B	B	B	A	A	A	B	A	B	A	A ¹	A	-	A	-	D	B	D	A	D	-	-	-	-	-	-	-	-	-	-	-
Vinyl Acetate	-	-	D	A ¹	-	A	-	-	-	B ¹	-	A ²	D	A ²	D	B ²	A ²	-	D	D	D	D	A ¹	-	B	B	-	A ¹	B	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vinyl Chloride	D	-	D	-	-	-	-	A ¹	-	-	-	A ²	D	B ¹	D	C	-	-	C	D	-	D	A ¹	-	B ²	A ¹	-	B ²	B	-	A ²	B	-	-	-	-	-	-	-	-	-	-	
Water, Deionized	-	A	A ²	-	-	-	A ²	1	-	A ²	A	A ²	A ²	A ²	A ¹	A ¹	A ²	A ¹	A	A	-	A ²	A ¹	-	A ¹	A ²	-	A ²	B	A	-	-	-	-	-	-	-	-	-	-	-		
Water, Acid, Mine	B	A ¹	A	A	-	A ²	-	A	B ²	A	A	B	A	A	A	A	-	A	B	C	B	-	A	-	B	B	-	D	D	A	D	-	-	-	-	-	-	-	-	-	-	-	
Water, Distilled	B	B	A	A	-	A ²	A	A ¹	A ²	A	A	A	A ²	A	A	A	-	A	A	C	B	A	-	A	-	A	-	A	-	A	B	A	D	-	-	-	-						