

A - No Effect - Acceptable
 B - Minor Effect - Acceptable
 C - Moderate Effect - Questionable
 D - Severe effect - Not Recommended

Chemical	Material																											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Acetaldehyde	A	A	A	-	B	A	A	D	-	-	C	D	A	-	A	C	B	A	A	A	A	B	B	D	B	C	A	
Acetamide	-	B	A	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-	-	A	A	A	-	A	D	A	A	
Acetate Solv.	A	B	A	B	B	-	-	A	C	B	A	B	A	-	A	B	D	-	A	A	D	D	-	D	-	-	A	
Acetic Acid, Glacial	-	B	A	A	B	A	A	C	C	D	A	C	A	C	D	B	B	A	A	A	D	D	B	C	B	C	B	
Acetic Acid 20%	-	-	A	-	-	A	A	-	C	-	-	B	A	A	D	-	A	A	A	D	C	-	C	-	-	-	B	
Acetic Acid 80%	-	-	A	-	-	A	A	-	C	-	-	D	A	B	D	-	B	-	-	A	D	C	-	D	-	-	B	
Acetic Anhydride	-	B	A	B	B	A	A	C	C	D	C	A	A	A	D	B	A	A	A	A	C	C	-	C	B	C	A	
Acetic Anhydride	B	A	A	B	B	A	A	C	D	B	D	A	D	A	D	A	A	A	A	A	D	A	C	B	B	C	A	
Acetone	A	A	A	B	A	A	A	A	A	A	A	D	A	D	A	C	B	A	A	A	D	D	B	C	A	D	B	
Acetyl Chloride	-	C	A	-	-	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	
Acetylene	A	A	A	A	A	-	-	B	-	A	A	B	-	-	-	-	-	-	-	D	A	A	A	C	B	A	C	A
Acrylonitrile	A	A	C	-	B	-	B	A	-	C	-	-	-	-	-	-	-	-	-	B	A	A	A	C	D	-	-	A
Aluminum Chloride 20%	-	D	C	D	B	A	A	D	-	D	A	A	-	A	A	B	A	A	A	A	A	A	-	A	A	A	A	
Aluminum Chloride	C	D	C	-	D	C	A	C	-	D	B	A	A	A	D	-	A	A	A	A	A	A	C	A	-	-	-	A
Aluminum Fluoride	-	D	C	D	-	D	B	-	-	-	A	A	A	A	D	B	A	-	-	A	A	C	A	-	C	A	A	
Aluminum Hydroxide	-	A	A	A	A	-	-	A	-	D	A	A	A	A	A	-	-	-	-	A	A	A	-	A	-	A	A	
Alum Potassium Sulfate (ALUM), 10%	-	A	-	-	A	-	B	-	-	D	A	A	A	-	A	A	-	-	-	A	A	-	-	A	-	A	A	
Alum Potassium Sulfate (ALUM) 100%	-	D	A	B	B	-	B	C	-	-	A	A	A	A	D	B	A	-	-	A	A	A	-	A	-	A	A	
Aluminum Sulfate	-	C	C	A	A	A	A	C	C	D	A	A	A	A	A	B	A	A	A	A	A	-	A	A	A	A	A	
Amines	A	A	A	-	A	B	A	B	-	A	B	C	A	B	A	-	-	-	-	A	A	D	D	C	B	B	C	A
Ammonia 10%	-	-	A	-	-	A	A	-	-	-	-	A	A	A	A	-	A	A	-	A	A	-	A	-	A	-	-	B
Ammonia Anhydrous	A	B	A	A	B	B	A	D	-	D	B	A	A	A	A	B	A	B	C	A	D	B	B	B	A	A	D	A
Ammonia, Liquids	-	A	A	A	D	-	B	D	-	A	A	A	A	A	-	D	A	-	-	A	A	D	B	B	A	A	D	A
Ammonia, Nitrate	-	A	A	A	C	-	-	D	-	-	A	B	-	-	-	-	-	-	-	A	-	A	-	C	-	-	-	A
Ammonium Bifluoride	-	C	A	-	D	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Ammonium Carbonate	B	A	A	A	C	A	B	B	-	C	B	A	A	A	A	-	-	-	-	-	-	-	-	-	-	-	-	A
Ammonium Casenite	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Ammonium Chloride	C	A	C	A	C	A	A	D	C	D	D	A	A	A	A	B	A	A	A	A	A	A	C	A	A	A	A	A
Ammonium Hydroxide	A	A	A	A	C	A	A	D	D	A	C	A	A	A	A	B	A	A	A	A	B	B	B	A	A	C	A	A
Ammonium Nitrate	A	A	A	A	B	A	A	D	D	A	D	A	A	A	A	D	B	A	A	A	A	A	C	A	A	A	A	A
Ammonium Oxalate	-	A	A	A	-	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Ammonium Persulfate	-	A	A	A	C	A	A	A	-	D	A	A	A	A	D	-	-	-	-	-	-	-	-	-	-	-	-	A
Ammonium Phosphate, Dibasic	B	A	A	A	B	A	A	C	-	-	D	A	A	A	A	B	A	-	-	-	-	-	-	-	-	-	-	A
Ammonium Phosphate, Monobasic	-	A	A	A	B	A	A	D	-	-	A	A	A	A	B	A	-	-	-	-	-	-	-	-	-	-	-	A
Ammonium Phosphate, Tribasic	B	A	A	A	B	A	A	C	-	C	D	A	A	A	B	A	-	-	-	-	-	-	-	-	-	-	-	A
Ammonium Sulfate	C	A	B	A	B	A	A	B	C	C	C	A	A	A	D	B	A	A	A	A	D	A	B	A	A	A	A	A
Ammonium Thio-Sulfate	-	-	A	-	-	A	-	-	-	D	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Amyl-Acetate	B	A	A	C	B	A	A	C	-	-	C	D	A	D	B	D	D	A	A	A	D	D	D	D	D	D	D	A
Amyl Alcohol	-	A	A	-	B	A	A	A	-	-	A	A	C	A	B	A	-	-	-	-	-	-	-	-	-	-	-	A
Amyl Chloride	-	C	B	-	D	-	-	A	A	-	-	A	D	A	D	C	D	D	-	-	-	-	-	-	-	-	-	A
Aniline	B	A	A	A	C	C	B	C	-	-	C	D	A	D	C	C	B	A	A	A	D	D	C	D	B	D	A	A
Anti-Freeze	-	A	A	-	A	-	A	B	B	B	B	C	A	A	A	B	A	A	A	A	A	A	C	A	A	A	A	A
Antimony Plating 130° F	-	-	A	-	-	A	A	-	-	-	-	-	A	A	A	D	-	-	-	-	-	-	-	-	-	-	-	B
Antimony Trichloride	-	D	D	-	D	-	A	-	-	-	-	-	A	A	-	D	A	-	-	-	-	-	-	-	-	-	-	A
Aqua Regia (80%, HCl, 20%, HNO)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Arochlor 1248	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Aromatic Hydrocarbons	-	-	A	-	-	A	-	-	-	-	A	A	D	-	D	-	C	-	-	-	-	-	-	-	-	-	-	A
Arsenic Acid	B	A	A	-	D	-	-	D	B	D	D	A	A	A	A	B	A	-	-	-	-	-	-	-	-	-	-	A
Arsenic Plating 110° F	-	-	A	-	-	A	A	-	-	-	-	-	A	A	A	-	-	-	-	-	-	-	-	-	-	-	-	A
Asphalt	-	B	A	-	C	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Barium Carbonate	B	A	A	A	B	A	A	B	-	B	B	A	A	A	A	B	A	-	-	-	-	-	-	-	-	-	-	A
Barium Chloride	C	A	A	A	D	A	A	B	-	N	C	A	A	A	B	B	A	A	A	A	A	A	B	A	A	A	A	A
Barium Cyanide	-	-	A	-	-	-	-	C	-	-	-	-	-	-	-	B	-	-	-	-	-	-	-	-	-	-	-	A
Barium Hydroxide	B	C	A	A	D	B	B	B	-	C	C	A	A	A	A	B	A	A	A	A	A	A	C	A	A	A	A	A
Barium Nitrate	-	A	A	-	-	A	-	D	-	-	A	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Barium Sulfate	B	A	A	A	D	A	A	C	-	C	C	A	A	A	A	B	A	A	A	B	A	A	D	A	A	-	-	B
Barium Sulfide	B	A	A	-	D	-	-	C	-	C	C	A	A	A	A	B	A	-	-	-	-	-	-	-	-	-	-	A
Beer	A	A	A	-	A	A	A	B	D	D	A	A	A	A	D	B	D	-	-	-	-	-	-	-	-	-	-	A
Beet Sugar Liquids	A	A	A	-	A	-	-	A	B	A	-	-	A	A	A	-	-	-	-	-	-	-	-	-	-	-	-	A
Benzaldehyde	A	A	A	-	B	A	A	A	-	B	A	D	A	D	C	D	D	A	A	A	D	D	B	D	A	D	A	A
Benzene	B	A	A	A	B	A	B	A	B	A	B	C	D	A	D	A	D	A	A	A	A	D	-	D	D	D	A	A
Benzoic Acid	B	A	A	A	B	A	A	B	-	D	-	-	A	A	A	D	B	D	-	-	-	-	-	-	-	-	-	A
Benzol	-	A	A	-	B	A	A	B	A	-	-	D	A	D	A	-	-	-	-	-	-	-	-	-	-	-	-	A
Benzyl Alcohol	-	A	A	-	B	A	A	A	C	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Borax (Sodium Borate)	-	A	A	A	C	-	-	A	A	B	A	C	A	A	A	B	A	A	A	A	A	B	C	A	A	C	A	A
Boric Acid	B	A	A	A	B	A	A	B	C	D	-	-	A	A	A	A	B	A	-	-	-	-	-	-	-	-	-	A
BRASS PLATING																												
Regular Brass Bath 100° F	-	-	A	-	-	A	A	-	-	-	-	-	A	A	A	A	-	-	-	-	-	-	-	-	-	-	-	B
High Speed Brass Bath 110° F	-	-	A	-	-	A	A	-	-	-	-	-	A	A	A	A	-	-	-	-	-	-	-	-	-	-	-	B
Brewery Slop	-	-	A	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Bromine (Wet)	D	D	D	D	D	A	A	C	-	D	D	B	A	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C
BRONZE PLATING																												
Copper-Cadmium Bronze Bath R.T.	-	-	A	-	-	A	A	-	-	-	-	-	A	A	A	A	-	-	-	-	-	-	-	-	-	-	-	B
Copper-Tin Bronze Bath 160° F	-	-	A	-	-	A	A	-	-	-	-	-	D	A	A	A	-	-	-	-	-	-	-	-	-	-	-	C
Copper-Zinc Bronze Bath 100° F	-	-	A	-	-	A	A	-	-	-	-	-	-	A	A	A	A	-	-	-	-	-	-	-	-	-	-	B
Butadiene	A	A	A	-	A	-	-	C	A	C	C	A	A	-	A	-	-	-	-	B	A	A	A	A	A	-	-	A
Butanes	A	A	A	-	A	-	-	A	A	C	C	A	A	D	A	C	D	A	A	A	A	A	A	D	B	D	D	A
Butanol	-	A	A	-	A	-	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butter	B	B	A	-	A	-	-	D	-	D	-	-	-	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-
Buttermilk	C	A	A	A	A	-	-	D	-																			

A - No Effect - Acceptable
 B - Minor Effect - Acceptable
 C - Moderate Effect - Questionable
 D - Severe effect - Not Recommended

Chemical	Material																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
CADMIUM PLATING																													
Cyanide Bath 90° F	-	-	A	-	-	A	A	-	-	-	-	A	A	A	A	-	-	-	-	C	A	A	-	A	-	-	B		
Fluoborate Bath 100° F	-	-	A	-	-	D	A	-	-	-	-	A	A	A	A	D	-	-	-	D	A	B	-	A	-	-	B		
Calcium Bisulfate	C	D	A	-	D	-	-	D	D	-	-	A	A	-	A	-	-	-	-	-	A	A	C	C	-	A	A		
Calcium Bisulfide	-	-	B	-	C	A	A	C	-	-	-	A	A	A	A	B	A	-	A	-	A	A	A	-	A	D	-	A	
Calcium Bisulfite	-	D	A	-	C	A	A	C	-	-	-	A	A	A	A	-	-	-	-	A	A	A	-	A	-	-	-		
Calcium Carbonate	B	A	A	A	C	A	A	C	-	D	-	A	A	A	A	B	A	-	A	A	A	A	-	A	-	A	A		
Calcium Chlorate	-	C	A	-	-	-	B	C	-	-	-	A	A	-	A	A	-	-	A	-	A	-	-	A	-	-	A		
Calcium Chloride	C	A	D	C	C	A	A	B	-	C	-	A	A	A	A	B	A	A	A	A	A	A	B	D	A	A	A		
Calcium Hydroxide	B	A	A	-	C	A	A	B	-	-	-	A	A	A	A	B	A	-	A	A	A	A	C	A	A	A	A		
Calcium Hypochlorite	D	A	C	C	C	A	B	D	-	D	-	D	A	A	D	B	A	-	A	A	A	B	C	D	A	C	A		
Calcium Sulfate	B	A	A	A	B	A	B	B	-	-	-	A	A	A	A	B	A	A	A	A	A	A	-	D	-	-	C	A	
Calgon	-	A	A	-	-	-	-	C	-	D	-	-	-	A	-	-	A	-	A	A	A	A	-	A	-	-	-	A	
Cane Juice	-	A	A	-	B	-	-	B	C	A	-	-	-	A	-	-	D	-	A	A	-	A	-	A	-	-	A	A	
Carbolic Acid (See Phenol)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Carbon Bisulfide	B	A	A	A	A	-	-	C	-	B	-	D	-	-	A	-	D	-	A	A	A	D	-	D	D	D	A		
Carbon Dioxide (Wet)	-	A	A	-	C	-	A	C	C	C	-	-	-	-	-	-	-	-	-	A	A	-	-	-	-	-	-		
Carbon Disulfide	-	B	A	-	C	-	-	C	C	B	C	D	A	D	A	D	D	A	A	B	A	D	-	D	D	D	A		
Carbon Monoxide	-	A	A	-	A	-	-	-	-	-	-	-	A	-	B	A	B	A	-	A	A	A	B	B	A	C	A		
Carbon Tetrachloride	B	C	B	A	C	A	A	C	A	C	D	C	A	D	A	D	D	C	A	A	A	C	C	D	-	D	C		
Carbonated Water	B	A	A	A	A	-	-	B	-	D	-	-	A	-	A	-	A	-	A	A	A	A	-	A	A	-	-	A	
Carbonic	B	A	B	A	A	-	A	B	-	D	-	A	A	A	A	B	A	-	A	A	A	B	B	A	A	A	A		
Catsup	-	A	A	A	D	-	-	C	-	D	-	-	A	-	A	A	-	A	-	A	A	A	-	C	-	-	-	A	
Chloracetic Acid	D	D	D	D	C	A	A	D	-	D	-	-	A	A	-	D	D	D	-	A	A	A	D	-	D	B	D	B	
Chloric Acid	-	D	D	-	-	-	-	-	-	-	-	D	A	-	-	-	-	-	-	-	-	-	D	-	D	-	-	D	
Chlorinated Glue	-	A	A	-	D	-	-	C	-	-	-	-	C	C	-	-	-	-	-	-	A	A	C	-	D	B	D	A	
Chlorine, Anhydrous Liquid	-	D	D	D	D	D	A	D	-	C	-	D	A	A	C	D	D	C	A	D	A	D	-	D	B	D	B		
Chlorine (Dry)	B	A	A	-	D	D	A	A	B	A	A	-	-	-	-	-	-	C	A	A	D	-	-	D	-	D	D		
Chlorine Water	D	-	D	-	D	A	B	D	D	D	-	A	A	C	D	-	D	C	C	A	A	D	C	D	-	-	-		
Chlorobenzene (Mono)	A	A	A	-	B	-	A	B	-	B	C	D	A	C	A	D	D	A	A	A	A	A	D	-	D	D	D	A	
Chlorosulfonic Acid	D	D	-	D	D	A	B	D	-	-	D	C	A	D	D	D	D	D	-	C	D	D	D	D	D	D	D	C	
Chlorox (Bleach)	-	A	A	-	C	-	A	A	-	D	C	A	A	A	A	D	-	D	C	A	A	A	C	-	B	B	D	A	
Chocolate Syrup	-	A	A	-	A	-	-	-	-	D	-	-	-	A	A	-	A	-	-	A	A	A	-	A	-	-	-	A	
Chromic Acid 5%	-	A	A	B	C	A	A	D	D	D	-	-	A	-	C	D	B	A	A	D	C	A	D	C	D	A	B	B	
Chromic Acid 10%	-	B	-	-	-	A	A	-	D	-	-	-	A	A	A	D	-	A	-	-	A	A	D	-	D	-	-	C	
Chromic Acid 30%	-	B	-	-	-	A	A	-	D	-	-	-	A	A	D	D	-	A	-	-	A	A	D	-	D	-	-	D	
Chromic Acid 50%	C	B	B	-	C	A	A	D	D	D	-	B	A	D	D	C	B	B	D	A	A	D	-	D	A	D	C		
CHROMIUM PLATING																													
Chromic-Sulfuric Bath 130° F	-	-	C	-	-	A	A	-	-	-	-	-	A	A	D	D	-	A	-	-	A	C	D	-	D	-	-	D	
Fluosilicate Bath 95° F	-	-	C	-	-	C	A	-	-	-	-	-	A	A	D	D	-	A	-	-	B	C	D	-	D	-	-	D	
Fluoride Bath 130° F	-	-	D	-	-	C	A	-	-	-	-	-	A	A	D	D	-	A	-	-	B	C	D	-	D	-	-	D	
Black Chrome Bath 115° F	-	-	C	-	-	A	A	-	-	-	-	-	A	A	D	D	-	A	-	-	A	C	D	-	D	-	-	D	
Barrel Chrome Bath 95° F	-	-	D	-	-	C	A	-	-	-	-	-	A	A	D	D	-	A	-	-	A	C	D	-	D	-	-	D	
Cider	-	A	A	A	B	-	-	A	-	D	-	-	A	-	A	-	B	-	-	-	A	A	A	-	A	-	-	A	
Citric Acid	-	A	A	A	C	A	A	D	C	D	-	-	A	A	A	C	B	B	-	A	A	A	D	C	A	A	-	A	
Citric Oils	-	A	A	-	C	-	-	B	-	-	-	-	-	A	-	-	A	-	A	A	A	A	C	D	-	-	-	A	
Coffee	A	A	A	A	A	-	-	B	-	C	-	-	-	A	A	A	-	A	-	A	A	A	-	A	-	-	-	A	
Copper Chloride	C	D	D	B	D	A	A	D	-	D	-	-	A	A	A	D	B	A	A	-	A	A	-	A	A	A	A	A	
Copper Cyanide	-	A	A	A	D	A	A	C	-	D	-	-	A	A	A	A	B	A	A	A	A	B	B	-	A	A	A	C	
Copper Fluoborate	-	D	D	-	D	-	B	D	-	D	-	-	A	A	-	-	A	-	-	A	-	A	B	-	A	-	-	A	
Copper Nitrate	B	A	A	B	D	A	A	D	-	-	-	-	A	A	-	A	D	B	A	-	A	A	-	A	-	-	-	A	
COPPER PLATING (Cyanide)																													
Copper Strike Bath 120° F	-	-	-	-	A	A	A	-	-	-	-	-	A	A	-	-	-	-	-	-	C	B	-	-	A	-	-	-	
Rochelle Salt Bath 150° F	-	-	A	-	-	A	A	-	-	-	-	D	A	A	A	-	A	-	-	-	D	A	A	-	B	-	-	C	
High Speed Bath 180° F	-	-	A	-	-	A	A	-	-	-	-	D	A	A	A	-	A	-	-	-	D	A	A	-	B	-	-	C	
COPPER PLATING (Acid)																													
Copper Sulfate Bath R.T.	-	-	D	-	-	A	A	-	-	-	-	-	A	A	A	D	-	A	-	-	-	D	A	A	-	A	-	-	D
Copper Fluoborate Bath 120° F	-	-	D	-	-	D	A	-	-	-	-	-	A	A	A	D	-	A	-	-	-	D	A	B	-	C	-	-	D
COPPER (Misc.)																													
Copper Pyrophosphate 140° F	-	-	A	-	-	A	A	-	-	-	-	-	A	A	A	A	-	A	-	-	-	B	A	A	-	A	-	-	B
Copper (Electroless) 140° F	-	-	-	-	-	-	-	D	-	-	-	-	A	A	A	A	-	A	-	-	-	D	A	D	-	D	-	-	B
Copper Sulfate, (5% Solution)	-	A	A	A	D	A	A	D	D	D	-	-	A	A	A	D	B	A	A	A	A	A	A	C	A	-	-	C	A
Copper Sulfate	B	B	-	-	-	A	A	C	D	-	-	-	A	A	A	C	-	A	-	-	-	A	B	B	-	A	-	-	A
Cream	-	A	A	-	A	-	-	C	-	D	-	-	-	-	A	A	-	A	-	-	-	A	A	A	-	C	-	-	A
Cresols	-	A	A	-	B	-	-	D	C	-	-	-	-	-	-	D	C	A	A	A	A	A	D	D	D	D	D	A	
Cresylic Acid	B	A	A	-	C	A	B	C	-	-	-	-	B	A	-	D	C	-	-	A	A	A	D	-	D	D	D	A	
Cyclohexane	-	A	-	-	A	A	-	A	-	-	-	-	-	-	D	-	-	-	-	-	-	-	-	C	-	D	-	-	A
Cyanic Acid	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Detergents	-	A	A	-	A	-	-	A	-	-	-	-	A	A	-	A	B	A	A	A	A	A	A	-	B	A	C	A	
Diacetone Alcohol	-	A	A	-	A	A	A	C	-	A	D	-	A	A	-	D	-	-	-	-	-	A	A	D	D	-	D	A	A
Dichlorethane	-	A	A	-	-	-	A	-	-	-	-	-	D	A	-	A	D	-	-	-	-	C	-	-	D	-	-	A	
Diesel Fuel	A	A	A	-	A	-	-	A	-	A	A	-	-	D	-	-	D	A	A	A	A	A	A	-	D	D	D	A	
Diethylamine	A	A	-	-	A	-	-	A	-	-	-	-	D	A	B	-	-	C	-	-	-	A	A	D	B	-	B	C	A
Diethylene Glycol	-	A	-	-	-	-	A	-	-	-	-	-	-	A	A	B	-	-	-	-	-	A	A	A	C	A	A	A	
Diphenyl Oxide	-	A	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	D	-	D	D	A	
Dyes	-	A	A	-	B	-	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Epsom Salts(Magnesium Sulfate)	B	A	A	A	A	A																							

A - No Effect - Acceptable
B - Minor Effect - Acceptable
C - Moderate Effect - Questionable
D - Severe effect - Not Recommended

Chemical	Material																											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Ethylene Chloride	-	A	A	-	C	B	B	A	-	C	C	D	A	D	-	-	D	A	A	A	A	D	D	D	C	D	A	
Ethylene Dichloride	-	A	A	-	D	A	B	C	-	C	D	A	D	A	D	A	C	A	A	A	D	D	D	C	D	A	A	
Ethylene Glycol	-	A	A	-	A	-	A	B	B	B	C	A	A	A	A	B	A	A	A	A	A	C	A	A	A	A	A	
Ethylene Oxide	-	-	A	-	A	-	-	A	-	-	-	D	A	A	A	-	-	-	A	A	D	D	D	D	C	D	A	
Fatty Acids	-	A	A	-	B	A	A	C	-	D	-	A	A	B	A	B	A	-	A	A	A	C	C	B	C	C	A	
Ferric Chloride	-	D	D	D	D	A	B	D	D	D	-	A	A	A	D	B	A	A	A	A	D	C	C	B	A	A	A	
Ferric Nitrate	-	A	A	A	D	A	A	D	-	-	-	A	A	A	D	B	A	A	A	A	A	D	A	A	A	A	A	
Ferric Sulfate	-	A	C	A	D	A	A	D	D	D	-	A	A	A	A	-	A	A	C	A	A	B	C	A	-	A	A	
Ferrous Chloride	-	D	D	-	D	A	B	C	-	D	-	A	A	A	D	B	A	A	A	A	A	B	C	A	-	A	A	
Ferrous Sulfate	B	A	C	-	D	A	B	C	-	D	D	A	A	A	D	B	A	A	A	A	B	-	A	-	A	-	A	
Fluoric Acid	-	D	B	-	D	A	D	-	D	-	-	A	A	A	B	C	B	A	-	A	D	A	B	-	A	-	A	
Fluorine	D	D	D	-	D	D	A	D	-	D	D	C	C	-	D	C	-	-	D	-	-	-	-	-	-	-	D	
Fluosilicic Acid	-	-	B	-	D	D	B	-	-	D	-	A	A	A	D	B	A	-	A	D	B	A	-	A	-	-	C	
Formaldehyde 40%	-	-	A	-	-	A	A	-	-	-	-	B	A	A	D	-	A	A	-	A	D	B	B	A	-	-	A	
Formaldehyde	A	A	A	-	A	A	B	A	B	D	A	A	A	D	A	B	A	A	A	A	A	C	B	D	B	C	A	
Formic Acid	C	A	B	B	D	C	A	C	C	D	D	D	A	A	D	B	A	A	A	B	D	C	D	A	C	B		
Freon 11	A	-	A	-	B	-	-	B	-	C	B	B	A	D	A	C	-	A	A	A	C	C	D	D	D	A	A	
Freon 12 (wet)	-	-	D	-	B	-	-	B	-	-	-	B	A	D	A	C	A	A	A	A	A	D	B	B	D	A	A	
Freon 22	-	-	A	-	B	-	-	B	-	-	-	D	-	B	A	-	-	A	A	A	D	D	A	A	A	A	A	
Freon 113	-	-	A	-	B	-	-	B	-	-	-	C	-	-	A	-	-	A	A	A	C	A	D	A	-	D	A	
Freon T.F.	-	-	A	-	B	-	-	B	-	-	-	B	-	D	A	-	D	A	A	B	A	D	A	D	A	D	A	
Fruit Juice	A	A	A	A	B	-	-	B	-	D	D	A	D	A	A	B	A	-	A	A	A	A	-	A	-	-	A	
Fuel Oils	A	A	A	-	A	A	A	B	-	C	B	A	A	A	A	D	B	A	A	A	A	C	B	D	D	D	A	
Furan Resin	-	A	A	-	A	-	-	A	-	A	A	-	A	-	-	-	-	A	-	A	A	D	-	D	-	D	A	
Furfural	A	A	A	-	A	-	B	A	-	-	A	D	A	D	A	D	D	A	A	A	D	D	D	D	B	D	A	
Gallic Acid	B	A	A	-	A	-	A	A	-	D	D	A	A	-	A	-	-	-	-	-	B	A	-	-	-	-	-	
Gasoline	A	A	A	A	A	D	A	A	-	A	A	C	A	D	A	D	C	A	A	A	A	D	D	C	D	A	A	
Gelatin	A	A	A	A	A	-	A	A	C	D	D	A	A	A	A	-	A	-	A	A	A	A	D	-	A	A	A	
Glucose	A	-	A	-	A	-	-	A	A	B	B	A	A	B	A	B	A	-	A	A	A	B	A	A	A	A	A	
Glue P.V.A.	B	B	A	-	B	A	-	A	-	-	A	A	A	-	A	-	-	-	A	A	A	A	-	A	-	-	A	
Glycerine	A	A	A	A	A	A	A	A	B	B	B	A	A	A	A	-	A	-	A	A	A	B	A	A	A	A	A	
Cycolic Acid	-	-	-	-	-	-	A	-	-	-	-	-	A	-	B	A	A	A	-	A	A	-	A	-	-	-	A	
Gold Monocyanide	-	-	A	-	-	-	-	A	-	D	-	-	-	-	-	-	-	-	A	A	A	A	-	A	-	-	A	
GOLD PLATING																												
Cyanide 150° F	-	-	A	-	-	A	A	C	-	-	-	D	A	A	A	-	A	-	-	B	A	A	-	A	-	-	D	
Neutral 75° F	-	-	C	-	-	A	A	-	-	-	-	A	A	A	A	-	A	-	-	A	A	A	-	A	-	-	A	
Acid 75° F	-	-	C	-	-	A	A	-	-	-	-	A	A	A	A	-	A	-	-	A	A	A	-	A	-	-	A	
Indium Sulfamate Plating R.T.	-	-	C	-	-	A	A	-	-	-	-	A	A	A	D	-	A	-	-	A	A	A	-	A	-	-	A	
Grape Juice	-	A	A	-	B	-	-	B	-	D	-	A	-	A	-	B	-	-	A	A	A	A	-	A	-	-	A	
Grease	A	A	A	-	A	-	-	B	-	A	-	A	-	A	-	A	-	-	A	A	A	A	-	D	-	-	A	
Heptane	A	-	A	-	A	-	-	A	-	-	B	A	A	D	A	D	D	A	A	A	A	-	B	D	-	-	A	
Hexane	A	A	A	-	A	-	-	A	B	-	-	B	C	A	D	A	-	C	A	A	A	A	B	B	D	D	A	
Hexyl Alcohol	-	A	A	-	A	A	A	C	-	A	A	-	A	A	-	A	-	A	A	A	A	D	B	A	A	A	A	
Honey	-	A	A	-	A	-	-	A	-	A	-	A	-	A	A	-	A	-	A	A	A	A	-	A	A	-	A	
Hydraulic Oils (Petroleum)	A	A	A	-	A	-	-	B	-	A	A	-	A	-	A	-	D	-	A	A	A	A	-	B	D	D	A	
Hydraulic Oils (Synthetic)	-	A	A	-	A	-	-	A	-	A	-	-	-	-	A	-	D	-	A	A	A	C	D	-	-	-	A	
Hydrazine	-	A	A	-	-	-	-	-	-	C	-	-	-	-	-	-	-	-	A	-	A	B	D	B	A	C	A	
Hydrobromic Acid 20%	-	-	D	-	-	A	A	-	-	-	-	A	A	A	D	-	A	-	-	B	A	D	-	C	-	-	B	
Hydrobromic Acid	D	D	D	D	D	A	A	D	-	D	D	A	A	C	D	B	B	-	A	A	D	D	D	A	A	A	A	
Hydrochloric Acid, (Dry Gas)	D	C	A	-	D	-	-	A	-	-	-	D	A	A	-	-	-	-	-	A	-	-	-	-	-	-	A	
Hydrochloric Acid (20%)	-	D	D	D	D	C	B	D	-	D	-	A	A	A	D	A	A	D	A	A	C	-	C	A	C	A	A	
Hydrochloric Acid (37%)	-	D	D	D	D	C	B	D	-	D	-	-	A	A	D	A	A	D	A	C	A	C	C	C	C	D	A	
Hydrochloric Acid 100%	-	D	D	-	D	D	C	D	-	D	-	-	A	A	-	D	A	-	-	A	C	C	D	-	C	-	A	A
Hydrocyanic Acid	A	A	A	C	A	A	A	D	D	-	C	A	A	A	A	B	A	-	A	A	A	C	-	B	-	-	A	A
Hydrocyanic Acid (Gas 10%)	-	D	D	-	-	-	-	-	-	-	-	A	A	-	-	-	-	-	-	-	-	-	C	A	C	A	A	
Hydrofluoric Acid (20%) 1	-	D	D	D	D	D	B	D	-	D	-	D	A	A	D	C	A	C	B	C	A	D	-	C	A	C	B	
Hydrofluoric Acid (75%)	-	C	D	-	D	D	C	D	-	D	-	-	C	A	D	D	C	B	C	D	D	A	D	D	C	C	C	
Hydrofluoric Acid 100%	D	D	D	-	D	D	B	D	-	D	D	C	A	-	-	D	-	C	D	D	-	D	-	D	-	D	A	
Hydrofluosilicic Acid (20%)	-	D	D	-	D	D	B	A	-	D	-	D	A	B	D	-	A	-	A	D	A	B	-	B	A	A	C	
Hydrofluosilicic Acid	-	D	D	-	C	-	C	D	-	-	-	-	A	-	-	-	-	-	-	-	-	-	D	A	-	-	-	
Hydrogen Gas	A	A	A	-	A	-	-	A	-	B	B	A	A	-	-	-	-	-	-	-	A	-	-	-	-	-	A	
Hydrogen Peroxide 10%	-	C	C	-	A	C	A	D	D	D	-	A	A	-	B	A	-	B	A	A	-	A	-	D	-	-	C	D
Hydrogen Peroxide 30%	-	-	B	-	-	B	A	-	D	-	-	-	A	A	-	B	-	A	C	-	-	A	D	-	C	-	-	B
Hydrogen Peroxide	-	A	B	A	A	B	A	A	D	D	D	D	A	A	B	B	B	A	C	-	A	A	D	C	D	C	C	A
Hydrogen Sulfide, Aqueous Solution	-	A	A	C	C	A	A	D	C	D	-	A	A	A	B	B	A	A	A	A	B	C	-	B	A	D	A	A
Hydrogen Sulfide (Dry)	A	C	A	-	D	-	A	D	C	B	B	A	A	-	B	-	-	-	A	-	A	-	-	-	-	-	A	A
Hydroxyacetic Acid (70%)	-	-	-	-	D	B	-	-	-	-	-	-	A	-	-	-	-	-	-	A	A	A	-	A	-	-	A	A
Ink	A	A	A	-	C	-	-	C	-	D	D	-	-	B	A	B	-	-	-	A	A	A	A	-	A	-	-	A
Iodine	-	D	D	D	D	A	B	D	-	D	-	D	A	A	D	D	D	-	D	A	A	B	-	D	B	D	A	
Iodine (In Alcohol)	-	-	B	-	-	D	A	-	-	-	-	D	A	C	D	-	B	-	-	-	A	A	D	-	D	-	-	-
Iodoform	B	D	A	-	A	-	-	C	-	-	C	B	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	
IRON PLATING																												
Ferrous Chloride Bath 190° F	-	-	D	-	-	A	D	-	-	-	-	D	A	A	D	-	C	-	-	A	A	B	-	D	-	-	D	
Ferrous Sulfate Bath 150° F	-	-	C	-	-	A	A	-	-	-	-	D	A	A	D	-	A	-	-	-	A	A	A	-	B	-	-	D
Ferrous Am. Sulfate Bath 150° F	-	-	C	-	-	A	A	-	-	-	-	D	A	A	D	-	A	-	-	-	A	A	A	-	B	-	-	D
Sulfate-Chloride Bath 160° F	-	-	D	-	-	A	D	-	-	-	-	D	A	A	D	-	A	-	-	-	A	A	B	-	C	-	-	D
Fluoborate Bath 145° F	-	-	D	-	-	D	B	-	-	-	-	D	A	A	D	-	A	-	-	-	D	A	B	-	C	-	-	D
Sulfamate 140° F	-	-	D	-	-	A	B	-	-	-	-	A	A	A	D	-	A	-	-	-	A	A	-	A	-	-	-	A
Isobutyl Alcohol	-	A	A	-	B	A	A	A	C	-	A	-	-	A	A	-	-	-	A	A	A	C	B	A	A	A	A	A
Isopropyl Alcohol	-	A	A	-	B																							

A - No Effect - Acceptable
B - Minor Effect - Acceptable
C - Moderate Effect - Questionable
D - Severe effect - Not Recommended

Chemical	Material																												
	303 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	Titanium	Hastelloy C	Cast Bronze	Brass	Cast Iron	Carbon Steel	PVC	Teflon	Noryl	Nylon	Polyethylene	Polypropylene	Ryton	Carbon	Ceramic	Viton(R)*	Buna N	Silicon	Neoprene	Ethylene Propylene	Natural Rubber	Epoxy		
Lacquers	A	A	A	-	A	-	-	A	C	C	C	-	-	C	A	-	A	-	A	A	D	D	-	D	-	D	A		
Lacquer Thinners	-	-	A	-	-	-	A	A	-	C	-	-	C	A	D	A	-	B	-	-	A	-	D	-	D	A	-		
Lactic Acid	A	A	B	C	C	A	A	D	-	D	D	A	A	A	C	B	A	A	A	B	B	-	D	A	B	A	A		
Lard	B	A	A	A	A	-	-	A	-	A	C	A	-	-	A	-	A	-	A	A	A	A	C	B	-	D	A		
Latex	-	A	A	-	A	-	-	A	-	-	-	-	-	A	A	B	-	-	-	A	A	A	C	B	-	D	A		
Lead Acetate	B	A	A	-	D	A	A	C	-	D	A	A	A	A	B	A	B	A	-	A	D	B	-	D	A	A	A		
Lead Fluoroborate Plating	-	-	C	-	-	D	A	-	-	-	-	A	A	A	D	-	A	-	-	D	A	B	-	C	-	-	A		
Lead Sulfamate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	B	C	A	D	C	A	A		
Ligroin	-	-	A	-	-	-	-	A	-	-	-	-	-	D	-	-	D	-	-	A	A	A	-	B	A	D	A		
Lime	-	A	A	-	C	A	-	A	-	A	-	A	-	A	-	-	-	-	A	A	A	C	B	D	-	A	A		
Lubricants	-	A	A	-	A	A	B	-	-	-	-	A	A	-	A	-	A	A	A	A	A	C	D	-	D	A	A		
Magnesium Carbonate	-	A	A	A	-	-	B	-	-	-	-	A	-	A	-	B	A	-	-	A	-	A	-	A	A	-	A		
Magnesium Chloride	B	B	B	A	D	A	A	B	C	D	C	A	A	A	A	B	A	A	-	A	A	A	-	A	A	A	A		
Magnesium Hydroxide	A	A	A	-	D	A	A	C	B	B	B	A	A	A	A	B	A	A	A	A	A	B	-	B	-	C	A		
Magnesium Nitrate	-	A	A	A	-	A	A	-	-	-	-	A	A	A	A	B	A	-	-	A	A	A	-	A	-	-	A		
Magnesium Oxide	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	-	A	-	-	A		
Magnesium Sulfate	B	B	A	-	B	A	B	B	B	C	B	A	A	A	A	B	A	A	A	A	A	A	-	A	D	C	A		
Maleic Acid	C	A	A	A	B	A	A	C	-	-	B	A	A	A	A	-	C	-	-	A	A	A	D	-	A	D	A		
Maleic Anhydride	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	D	-	D	-	D	A		
Malic Acid	B	A	A	-	C	-	A	D	-	-	D	A	A	-	A	-	-	-	-	A	C	-	-	A	-	-	A		
Mash	-	A	A	-	-	-	-	A	-	-	-	-	-	A	-	-	-	-	-	A	A	-	A	-	-	-	A		
Mayonnaise	A	A	A	-	D	-	-	D	-	D	D	-	A	A	A	-	A	-	A	A	A	A	-	-	-	-	A		
Melamine	-	D	D	-	-	-	-	D	-	-	-	-	-	-	-	-	-	-	-	A	A	-	C	-	-	-	A		
Mercuric Chloride (Dilute Solution)	D	D	D	D	D	A	B	D	D	D	D	A	A	A	A	B	A	-	A	A	A	-	A	A	A	A	A		
Mercuric Cyanide	A	A	A	-	D	A	-	D	-	-	D	A	A	A	-	B	A	-	A	A	-	A	-	-	-	-	A		
Mercury	A	A	A	A	C	C	A	D	D	A	A	A	A	A	A	B	A	-	-	A	A	A	-	A	-	A	A		
Methanol (See Alcohol Methyl)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Methyl Acetate	A	-	A	-	A	-	A	A	-	B	-	A	-	-	-	-	-	-	-	A	A	D	D	B	B	D	-		
Methyl Acetone	A	-	A	-	A	-	-	A	-	A	A	-	A	D	-	-	-	-	-	A	D	D	-	D	-	-	C		
Methyl Alcohol 10%	A	-	A	-	C	-	A	C	-	B	A	A	-	A	-	A	-	-	-	-	-	-	-	-	-	-	A		
Methyl Alcohol	-	A	A	A	B	A	A	A	C	A	A	B	A	A	A	B	A	-	-	A	C	B	-	A	A	A	A		
Methyl Bromide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	B	-	D	D	B		
Methyl Butyl Ketone	-	-	A	-	A	-	-	-	-	-	-	-	-	D	-	-	-	-	-	A	A	D	C	D	A	D	B		
Methyl Cellosolve	-	-	-	-	A	-	-	A	-	-	-	-	-	C	-	-	-	-	-	A	A	D	D	-	D	B	D	C	
Methyl Chloride	-	C	A	-	D	A	A	A	-	-	-	D	A	D	A	D	D	-	-	A	A	D	D	D	D	C	D	A	
Methyl Dichloride	-	-	-	-	-	-	-	-	-	-	-	-	-	D	-	-	-	-	-	A	A	A	D	-	D	D	A		
Methyl Ethyl Ketone	-	A	A	-	A	A	A	A	-	-	-	D	A	D	A	D	A	A	A	A	A	D	D	C	D	A	D	B	
Methyl Isobutyl Ketone	-	-	A	-	-	A	A	-	-	-	-	D	A	D	A	-	C	A	A	A	D	D	C	D	C	D	B		
Methyl Isopropyl Ketone	-	-	A	-	-	-	-	-	-	-	-	-	-	D	A	-	-	-	-	A	A	D	B	D	B	C	D	B	
Methyl Methacrylate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	D	D	-	D	D	A		
Methylamine	A	-	A	-	A	-	-	D	-	B	B	-	-	B	-	-	-	-	-	A	A	-	B	-	-	-	-	A	
Methylene Chloride	A	A	A	-	A	A	A	C	-	B	D	A	D	D	D	D	D	-	-	A	A	B	D	-	D	D	A		
Milk	A	A	A	A	A	-	-	C	C	D	D	A	-	A	A	B	A	-	-	A	A	A	B	A	A	A	A	A	
Molasses	A	A	A	A	A	-	-	A	B	A	A	A	-	B	A	B	A	-	-	A	A	A	A	-	A	-	-	A	
Mustard	A	A	A	A	B	-	-	B	-	C	B	A	-	B	A	-	A	-	-	A	A	B	C	C	-	-	-	A	
Naptha	A	A	A	A	A	A	A	B	-	B	B	A	A	D	A	D	A	A	A	A	A	B	D	D	D	D	A	A	
Napthalene	B	A	B	-	B	A	A	C	-	B	A	D	A	D	-	D	B	A	A	A	C	D	-	D	D	D	A	A	
Nickel Chloride	-	A	B	-	D	A	A	D	-	D	-	A	A	A	A	B	A	-	-	A	A	A	-	A	A	A	A	A	
NICKEL PLATING																													
Watts Type 115-160° F	-	-	C	-	-	A	A	-	-	-	-	D	A	A	A	-	A	-	-	A	A	A	-	A	-	-	D		
High Chloride 130-160° F	-	-	C	-	-	A	A	-	-	-	-	D	A	A	D	-	A	-	-	-	A	A	A	-	B	-	-	D	
Fluoroborate 100-170° F	-	-	C	-	-	D	A	D	-	-	-	D	A	A	D	-	A	-	-	-	D	A	B	-	C	-	-	D	
Sulfamate 100-140° F	-	-	C	-	-	A	A	-	-	-	-	-	A	A	A	-	A	-	-	-	A	A	A	-	-	-	-	A	
Electroless 200 ° F	-	-	-	-	-	-	-	-	-	-	-	D	A	D	D	-	D	-	-	-	A	A	D	-	D	-	-	B	
Nickel Sulfate	B	A	B	-	D	A	B	C	C	D	D	A	A	A	A	B	A	-	-	A	A	A	-	A	A	C	A	A	
Nitric Acid (10% Solution)	A	A	A	A	D	A	A	D	-	D	D	A	A	A	D	B	A	C	C	B	A	D	-	D	B	D	A	A	
Nitric Acid (20% Solution)	-	A	A	A	D	A	A	D	-	D	-	A	A	A	D	B	A	C	D	C	A	D	-	D	D	D	B	B	
Nitric Acid (50% Solution)	-	A	A	A	D	A	A	D	-	D	-	A	A	A	D	C	D	C	D	A	A	D	-	D	D	D	D	D	
Nitric Acid (Concentrated Solution)	-	D	B	A	B	A	B	D	D	D	-	D	A	D	D	D	D	C	D	A	B	D	-	D	D	D	D	D	
Nitrobenzene	B	A	B	-	C	A	B	D	-	B	B	D	A	D	C	D	C	B	A	A	A	D	D	D	D	D	B	B	
OILS																													
Aniline	-	A	A	-	C	A	D	A	-	A	-	D	A	D	C	-	A	-	-	A	A	A	D	-	D	B	D	A	
Anise	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	-	-	D	-	-	-	A	
Bay	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	-	D	-	-	-	A	
Bone	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	-	D	-	-	-	A	
Castor	-	A	A	-	A	-	-	A	-	A	-	A	-	-	-	-	-	-	-	A	A	A	-	A	B	A	A	A	
Cinnamon	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	D	-	D	-	-	-	A	
Citric	-	A	A	-	-	-	-	D	-	D	-	-	-	-	-	-	-	-	-	A	A	A	-	D	-	-	-	A	
Clove	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	B	-	A	-	-	-	-	A	
Coconut	-	A	A	-	B	-	-	A	-	A	-	-	-	-	-	-	-	-	-	A	A	A	-	A	A	D	A	A	
Cod Liver	-	A	A	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	-	B	A	D	A	A	
Corn	-	A	A	A	B	-	-	B	-	A	-	-	-	-	-	-	-	-	-	A	A	A	-	D	C	D	A	A	
Cotton Seed	B	A	A	A	B	-	-	B	-	A	C	A	A	-	A	-	A	-	-	A	A	A	-	D	C	D	A	A	
Cresote	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	-	A	A	A	-	-	D	A
Diesel Fuel (2D,3D,4D,5D)	-	A	A	-	A	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	-	D	D	D	A	
Fuel (1,2,3,5A,5B,6)	-	A	A	-	A	A	A	-	-	-	-	A	A	D	-	-	-	-	-	-	A	A	B	-	D	D	D	A	
Ginger	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	-	A	-	-	-	A
Hydraulic (See Hydraulic)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lemon	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	-	D	-	-	A	
Linseed	-	A	A	A	A	-	-	A	-	A	-	A	-	-	-	-	-	-	-	-	A	A	A	-	D	D	D	A	
Mineral	A	A	A	A	A	-	-	A</																					

A - No Effect - Acceptable
B - Minor Effect - Acceptable
C - Moderate Effect - Questionable
D - Severe effect - Not Recommended

Chemical	Material																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
Rape Seed	-	A	A	-	-	-	-	A	-	-	-	-	A	-	-	-	-	-	-	A	A	A	B	-	D	-	D	A	
Rosin	-	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	A	-	-	-	-	A	
Sesame Seed	-	A	A	-	A	-	-	A	-	A	-	A	-	-	-	-	-	-	-	A	A	A	A	-	D	-	-	A	
Silicone	-	A	A	-	-	-	-	A	-	A	-	-	-	A	A	-	-	-	-	A	A	A	A	-	A	-	A	A	
Soybean	-	A	A	-	A	-	-	B	-	A	-	A	-	-	A	-	-	-	-	A	A	A	A	-	D	-	D	A	
Sperm	-	A	A	-	-	-	-	A	-	-	-	-	A	-	-	-	-	-	-	A	A	A	A	-	D	-	-	A	
Tanning	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	A	-	D	-	-	A	
Turbine	-	A	A	-	A	-	-	A	-	A	-	-	A	-	-	-	-	-	-	A	A	A	A	-	D	-	-	A	
Octyl Alcohol	-	A	A	-	A	A	A	C	-	A	-	-	A	A	A	-	-	-	-	A	A	A	B	-	B	A	C	A	
Oleic Acid	B	A	A	B	B	-	B	B	C	C	-	C	A	A	C	A	D	C	-	-	A	A	B	D	D	D	D	A	
Oleum 25%	-	-	-	-	-	-	A	-	-	-	-	-	D	A	D	-	-	-	-	-	-	-	-	-	-	-	-	D	
Oleum	B	-	A	-	B	-	C	C	-	B	D	A	-	-	-	-	D	-	-	-	A	A	C	D	D	D	D	A	
Oxalic Acid (cold)	C	A	B	A	C	C	B	B	C	D	D	A	A	C	D	A	A	-	-	A	A	B	C	D	B	A	C	A	
Paraffin	A	A	A	A	A	-	-	A	-	B	B	A	A	B	A	-	A	-	-	A	A	A	A	-	-	-	-	A	
Pentane	A	C	C	-	A	-	B	A	-	B	B	-	A	D	A	-	-	-	-	A	A	A	A	-	B	D	D	A	
Perchloroethylen	B	A	A	-	A	-	-	C	-	B	B	-	A	D	-	-	D	A	A	A	A	C	D	D	D	D	D	A	
Petrolatum	A	-	A	-	B	-	-	B	-	C	C	-	A	D	A	-	-	-	-	A	A	A	-	B	A	D	A	A	
Phenol 10%	B	A	A	-	A	-	B	C	-	B	D	A	A	-	D	-	-	-	-	A	-	B	D	-	C	D	C	C	
Phenol (Carbolic Acid)	B	A	A	A	B	C	A	B	D	D	D	A	A	C	D	D	B	A	A	D	A	D	-	D	D	D	D	B	
Phosphoric Acid (to 40% Solution)	-	B	A	A	D	A	A	D	D	D	-	A	A	A	D	B	A	A	B	C	A	D	-	D	B	C	A	A	
Phosphoric Acid (40%-100% Solution)	-	C	B	B	D	B	A	D	D	D	-	A	A	A	D	C	A	A	B	D	A	D	-	D	B	C	C	C	
Phosphoric Acid (Crude)	-	D	C	C	D	C	A	D	D	D	D	-	A	-	D	C	-	-	A	C	D	A	D	-	D	B	-	A	
Phosphoric Anhydride (Dry or Moist)	-	A	A	-	-	-	-	D	-	-	-	D	A	-	-	-	-	-	-	A	-	D	D	-	D	-	A	-	
Phosphoric Anhydride (Molten)	-	A	A	-	D	-	-	D	D	-	-	D	A	-	-	A	D	-	-	-	-	D	C	-	D	-	D	A	
Photographic (Developer)	-	C	A	C	C	A	A	-	-	D	-	-	A	-	A	-	B	A	-	-	A	A	A	-	A	-	-	A	
Phthalic Anhydride	B	A	B	-	B	-	A	B	-	C	C	-	A	-	A	-	-	-	-	-	-	A	C	-	-	-	-	-	
Picric Acid	B	A	A	-	C	-	A	D	D	D	D	A	A	-	A	A	-	-	-	-	-	A	D	A	-	A	A	A	
Potash	-	A	-	A	C	-	A	C	-	B	-	-	A	-	A	A	B	A	-	-	A	A	A	-	B	-	B	A	
Potassium Bicarbonate	-	A	-	B	C	A	B	B	-	D	-	A	A	A	A	B	A	A	A	A	A	A	-	A	-	A	-	B	A
Potassium Bromide	A	A	-	B	C	A	B	C	-	D	D	A	A	A	C	B	A	C	A	A	A	A	-	A	A	B	A	A	
Potassium Carbonate	B	A	-	A	C	A	A	C	-	B	B	A	A	A	A	B	A	A	A	A	A	A	B	-	A	-	B	A	
Potassium Chlorate	B	A	A	A	B	A	B	B	-	B	B	A	A	A	D	B	B	A	A	A	A	A	-	A	-	A	-	B	A
Potassium Chloride	C	A	A	B	B	A	A	C	C	B	B	A	A	A	B	B	A	A	A	A	A	A	-	A	A	A	A	A	
Potassium Chromate	-	-	B	B	A	-	B	A	-	A	-	A	-	A	-	B	-	-	-	A	D	A	A	-	A	-	B	C	
Potassium Cyanide Solutions	B	A	B	A	D	A	A	D	-	B	B	A	A	A	B	A	A	C	A	B	A	A	-	A	A	A	A	A	
Potassium Dichromate	B	A	A	A	A	A	B	C	-	B	C	A	A	A	D	B	A	A	A	A	B	A	-	A	A	A	A	A	
Potassium Ferrocyanide	B	A	-	A	C	-	B	A	-	C	A	A	-	A	A	-	-	-	-	-	-	D	-	-	-	-	-	A	
Potassium Hydroxide (50%)	A	B	B	B	D	C	A	A	D	D	C	A	A	A	A	B	A	A	-	D	B	B	C	A	A	A	C	A	
Potassium Nitrate	B	A	B	A	B	A	B	B	-	-	B	A	A	A	C	B	A	C	A	A	B	A	-	A	A	A	A	A	
Potassium Permanganate	B	A	B	B	B	B	B	B	-	B	B	A	A	A	D	B	B	A	A	A	B	A	-	A	-	A	-	B	B
Potassium Sulfate	B	A	B	B	A	A	A	B	B	B	B	A	A	A	C	B	A	A	A	A	A	A	A	C	A	A	C	A	
Potassium Sulfide	A	A	-	A	B	-	B	B	-	B	B	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Propane (Liquified)	A	A	-	A	A	-	-	A	A	-	B	D	A	D	A	-	D	-	-	-	A	A	A	D	B	D	D	A	
Propyl Alcohol	-	A	A	-	A	A	A	A	-	-	A	A	A	A	A	-	A	-	-	-	A	A	A	B	A	A	A	A	
Propylene Glycol	B	B	-	A	A	-	-	B	-	B	B	-	A	-	B	B	-	-	-	-	A	A	A	-	C	-	-	A	
Pyridine	-	C	-	B	B	-	-	-	-	B	A	-	A	D	-	C	B	A	A	A	D	D	-	D	B	D	A	A	
Pyrogallol Acid	B	A	A	A	B	-	A	B	-	B	B	A	A	-	A	-	-	-	-	-	A	A	A	A	-	-	-	-	A
Rhodium Plating 120° F	-	-	D	-	-	D	D	-	-	-	-	A	A	D	-	A	-	-	-	-	A	A	A	-	B	-	-	-	A
Rosins	A	A	A	A	A	-	B	A	C	-	C	-	A	-	A	-	A	-	-	-	A	A	-	A	-	-	-	-	A
Rum	-	A	-	A	-	-	-	-	-	-	-	-	A	-	A	A	-	-	-	-	A	A	A	-	A	-	-	-	A
Rust Inhibitors	-	A	-	A	-	-	-	A	-	A	-	-	-	-	-	-	-	-	-	-	A	A	A	-	C	-	-	-	A
Salad Dressing	-	A	-	A	B	-	-	B	-	D	-	-	A	-	A	-	A	-	-	-	A	A	A	-	-	-	-	-	A
Sea Water	A	A	A	A	C	A	-	C	-	-	D	A	A	A	A	B	A	-	-	-	A	A	A	B	B	A	A	A	
Shellac (Bleached)	A	A	-	A	A	-	-	A	B	B	A	-	A	-	A	-	A	-	-	-	A	-	-	-	-	-	-	-	A
Shellac (Orange)	A	A	-	A	A	-	-	A	C	C	A	-	A	-	A	-	A	-	-	-	-	A	-	-	-	-	-	-	A
Silicone	-	B	-	A	B	-	-	A	-	-	-	-	-	-	A	A	-	-	-	-	A	A	A	B	A	A	A	A	
Silver Bromide	-	C	C	B	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Silver Nitrate	B	A	B	A	D	A	A	D	-	D	D	A	A	A	A	B	A	-	-	-	A	A	C	-	A	C	A	A	
Silver Plating 80-120° F	-	-	A	-	-	A	A	-	-	-	-	-	A	A	A	A	-	-	-	-	B	A	A	-	A	-	-	-	A
Soap Solutions	A	A	A	A	C	A	B	B	-	B	A	A	A	A	A	B	A	A	A	A	A	A	A	B	B	-	C	A	
Soda Ash (See Sodium Carbonate)																													
Sodium Acetate	B	A	A	B	B	A	A	B	-	C	C	A	A	A	A	B	A	-	-	-	A	A	D	D	-	C	-	A	A
Sodium Aluminate	B	-	-	A	C	B	B	B	-	-	C	-	A	A	A	A	-	-	-	-	A	A	A	A	-	A	A	B	A
Sodium Bicarbonate	B	A	A	A	A	A	-	B	A	C	C	A	A	A	A	B	A	A	A	A	A	A	A	C	A	A	A	A	A
Sodium Bisulfate	A	A	-	A	D	B	B	C	C	D	D	A	A	A	C	B	A	A	A	A	A	B	A	C	A	-	A	A	
Sodium Bisulfite	-	A	-	A	A	A	B	C	-	D	-	-	A	A	A	D	B	A	A	A	A	A	A	C	A	-	A	A	
Sodium Borate	B	A	-	A	C	-	A	A	-	C	C	C	A	-	A	A	-	-	-	-	-	-	-	B	A	-	-	-	
Sodium Carbonate	B	A	B	B	C	A	A	B	B	B	C	B	A	A	A	B	A	A	B	A	A	B	A	-	A	A	A	A	
Sodium Chlorate	B	A	-	A	B	A	B	B	-	-	C	A	A	A	A	B	A	A	A	A	A	A	D	-	A	-	A	A	
Sodium Chloride	B	A	C	B	C	A	A	B	C	B	C	A	A	A	A	B	A	A	A	A	A	A	A	C	A	A	B	A	
Sodium Chromate	A	A	A	-	D	-	B	B	-	B	B	-	A	A	A	-	A	A	A	B	B	A	-	A	-	-	-	-	C
Sodium Cyanide	B	A	-	A	D	A	-	D	D	B	B	A	A	A	C	B	A	A	A	A	A	A	A	D	A	A	A	A	
Sodium Fluoride	B	C	-	C	C	A	A	C	-	D	D	D	A	-	A	C	-	-	-	-	-	C	D	-	D	-	-	-	A
Sodium Hydrosulfite	-	-	-	-	A	-	A	C	-	-	-	-	C	A	-	-	-	-	-	-	-	A	A	-	-	-	-	-	A
Sodium Hydroxide (20%)	-	A	A	A	D	A	A	C	D	A	-	-	A	A	A	C	B	A	A	C	D	A	A	D	B	A	A	A	
Sodium Hydroxide (50% Solution)	-	A	B	-	D	A	A	C	D	B	-	-	A	A	A	C	C	A	B	C	D	A	D						

A - No Effect - Acceptable
 B - Minor Effect - Acceptable
 C - Moderate Effect - Questionable
 D - Severe effect - Not Recommended

Chemical	Material																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
Sodium Silicate	B	A	B	A	C	A	B	C	C	-	B	A	A	A	A	-	A	-	A	A	A	A	-	A	A	A	A	A	
Sodium Sulfate	B	A	A	C	B	A	B	B	B	A	B	A	A	A	A	B	A	A	A	A	A	A	-	A	A	C	A	A	
Sodium Sulfide	B	A	B	-	D	A	B	D	D	A	B	A	A	A	A	B	A	A	A	A	A	C	-	A	A	C	A	A	
Sodium Sulfite	-	C	C	-	C	A	A	C	-	A	-	A	A	-	D	A	-	-	A	A	A	A	-	A	-	A	A	A	
Sodium Tetraborate	-	-	A	-	-	-	-	-	-	-	-	A	-	A	-	-	-	-	A	A	A	A	-	A	-	-	A	A	
Sodium Thiosulphate ("Hypo")	A	A	A	-	B	A	-	D	D	C	B	A	A	A	A	-	A	A	A	A	A	B	-	A	A	C	A	A	
Sorghum	-	A	A	-	-	-	-	-	-	A	-	-	-	-	A	-	-	-	A	A	A	A	-	A	-	-	-	A	
Soy Sauce	-	A	A	-	A	-	-	A	-	D	-	-	-	A	A	-	-	-	A	A	A	A	-	A	-	-	D	A	
Stannic Chloride	D	D	D	-	D	A	B	D	-	D	D	A	A	A	A	B	A	-	-	A	A	A	D	A	A	A	A	A	
Stannic Fluoborate	-	-	A	-	-	-	-	-	-	D	-	-	-	A	-	A	-	-	-	A	A	A	-	A	-	-	-	A	
Stannous Chloride	D	D	C	-	D	A	A	D	-	D	D	A	A	-	D	A	-	-	-	-	B	C	D	D	D	-	A	A	
Starch	B	A	A	-	A	-	-	B	-	C	C	A	A	A	A	B	-	-	A	A	A	A	-	A	-	-	-	A	
Stearic Acid	B	A	A	A	B	A	A	C	C	C	C	A	A	A	A	B	D	-	A	A	A	B	D	B	B	C	A	A	
Stoddard Solvent	A	A	A	A	A	A	A	A	A	A	B	A	A	A	D	A	D	D	A	A	A	B	D	D	D	D	D	A	
Styrene	A	A	A	-	A	-	-	A	-	-	A	-	A	A	-	-	-	-	A	A	B	D	D	D	D	D	A	A	
Sugar (Liquids)	A	A	A	A	A	-	A	A	-	B	B	-	A	A	A	-	A	-	A	A	A	A	-	B	-	-	A	A	
Sulfate Liquors	-	C	C	-	B	-	A	C	-	-	-	-	-	-	-	-	-	-	A	A	-	-	C	-	-	-	A		
Sulfur Chloride	-	D	D	D	D	-	-	C	D	-	-	A	A	A	A	A	D	-	A	C	A	D	-	D	D	D	C	A	
Sulfur Dioxide	-	A	A	C	A	A	B	B	-	-	D	A	D	D	C	D	A	A	A	A	D	D	C	B	A	D	A	A	
Sulfur Dioxide (Dry)	A	A	A	-	A	-	A	A	C	A	B	D	A	-	A	D	-	-	A	A	A	-	-	D	-	-	D	D	
Sulfur Trioxide (Dry)	A	A	C	-	A	-	-	B	-	B	B	A	A	D	D	-	-	B	A	A	D	-	D	B	C	A	A		
Sulfuric Acid (to 10%)	-	D	C	C	C	A	A	D	D	D	-	A	A	A	D	B	A	A	A	A	C	-	D	D	C	A	A		
Sulfuric Acid (10%-75%)	-	D	D	D	D	C	B	D	D	D	-	A	A	B	D	C	A	B	A	D	A	D	-	D	D	D	B		
Sulfuric Acid 75%-100%	-	-	D	-	D	B	-	D	-	-	B	A	A	D	-	B	C	-	A	A	D	-	D	-	-	-	D		
Sulfurous Acid	C	C	B	C	C	A	B	D	-	D	D	A	A	A	D	B	A	-	B	A	A	C	D	B	B	C	A	A	
Sulfuryl Chloride	-	-	-	-	-	-	-	-	-	-	-	A	A	-	-	-	-	-	-	A	-	-	-	-	-	-	-	A	
Syrup	-	A	A	A	A	-	-	D	-	-	-	A	-	A	A	-	A	-	A	A	A	-	B	-	-	A	A		
Tallow	-	A	A	-	A	-	-	-	-	-	-	-	-	A	A	C	-	-	A	A	A	A	-	-	-	-	-	A	
Tannic Acid	B	A	A	A	C	A	B	B	-	C	C	A	A	A	D	B	A	-	A	A	A	D	C	A	A	A	A	A	
Tanning Liquors	-	A	A	-	C	A	A	A	-	-	A	A	-	-	-	A	-	-	A	A	A	C	-	-	-	-	-	A	
Tartaric Acid	B	A	B	B	C	A	B	A	C	D	D	A	A	A	A	B	A	-	A	A	A	D	C	A	-	-	A	A	
Tetrachlorethane	-	-	A	-	-	A	A	-	-	-	-	D	A	D	A	D	A	-	-	A	A	D	-	-	D	D	A	A	
Tetrahydrofuran	-	A	A	-	D	-	-	D	-	D	A	D	A	D	A	D	C	A	A	A	B	D	-	D	B	D	A	A	
Tin-Fluoborate Plating 100° F	-	-	C	-	-	D	A	-	-	-	-	A	A	A	D	-	A	-	-	D	A	B	-	C	-	-	-	A	
Tin-Lead Plating 100° F	-	-	C	-	-	D	A	-	-	-	-	A	A	A	D	-	A	-	-	D	A	B	-	C	-	-	-	A	
Toluene, Toluol	A	A	A	-	A	A	A	A	A	A	A	D	A	D	A	D	D	A	A	A	C	D	D	D	D	D	D	A	
Tomato Juice	A	A	A	-	A	-	-	C	-	C	C	-	A	A	A	-	A	A	A	A	A	A	-	A	-	-	-	A	
Trichlorethane	-	C	A	-	C	A	A	C	-	C	-	-	A	D	-	-	-	-	A	A	A	D	D	D	D	D	A	A	
Trichlorethylene	B	A	A	-	B	A	A	B	A	C	B	D	A	D	C	D	D	C	A	A	A	D	D	D	D	D	D	A	
Trichloropropane	-	-	A	-	-	-	-	A	-	-	-	-	-	D	-	-	-	-	-	A	A	A	A	-	A	-	-	A	
Tricresylphosphate	-	-	A	-	-	B	A	A	-	-	-	D	A	A	-	-	-	-	-	A	A	B	D	-	D	A	-	A	
Triethylamine	-	-	-	-	-	-	-	A	-	-	-	-	A	-	B	-	-	-	-	A	A	A	A	D	B	-	-	A	
Turpentine	B	A	A	-	C	-	A	B	C	B	B	A	A	D	A	D	B	A	A	A	A	D	-	D	D	D	A	A	
Urine	-	A	A	-	B	-	-	C	-	B	-	-	A	-	A	A	B	A	-	A	A	A	-	D	A	-	-	A	
Varnish (Use Viton® for Aromatic)	A	A	A	A	A	-	-	A	B	-	C	-	A	D	A	-	A	-	A	A	A	B	C	D	-	-	D	A	
Vegetable Juice	-	A	A	-	A	-	-	C	-	D	-	-	-	A	A	-	-	-	-	A	A	A	B	D	-	-	D	A	
Vinegar	A	A	A	A	D	A	A	B	B	C	D	A	A	A	A	B	A	A	A	A	C	-	B	A	C	A	A	A	
Water, Fresh	A	A	A	-	A	-	-	A	C	B	D	A	A	A	A	D	A	A	A	A	A	A	-	B	A	A	A	A	
Water, Salt	-	A	A	-	B	-	-	B	C	D	-	A	-	A	A	-	A	A	A	A	A	-	B	A	A	A	A	A	
Water, Acid , Mine	-	A	A	-	C	-	-	C	D	C	-	A	-	A	A	-	A	B	A	A	A	A	-	B	-	-	B	A	
Water, Distilled , Lab Grade 7	-	A	A	-	B	-	-	A	-	D	-	A	A	A	A	-	A	A	A	A	A	A	-	B	A	A	A	A	
Weed Killers	-	A	A	-	C	-	-	C	-	-	-	-	-	-	A	-	-	-	-	A	A	B	-	C	-	-	-	A	
Whey	-	A	A	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	-	-	-	-	-	A	
Whiskey and Wines	A	A	A	A	D	-	-	B	B	D	D	A	A	A	A	B	A	-	A	A	A	B	A	A	A	A	A	A	
White Liquor (Pulp Mill)	-	A	A	-	-	-	A	D	-	C	-	-	A	A	A	-	A	-	-	A	A	A	-	A	-	-	-	A	
White Water (Paper Mill)	-	A	A	-	-	-	-	A	-	-	-	-	-	-	A	-	A	-	-	A	A	A	-	A	-	-	-	A	
Xylene	A	A	A	-	A	-	-	A	A	A	B	D	A	D	A	D	D	A	A	A	A	D	D	D	D	D	D	A	A
Zinc Chloride	D	A	B	B	D	A	B	D	D	D	D	A	A	A	A	B	A	A	A	A	A	A	-	A	A	A	A	A	
Zinc Hydrosulfate	B	A	A	A	D	A	B	B	C	C	D	C	A	A	A	B	A	A	A	A	A	A	-	A	A	C	A	A	
Zinc Hydrosulphite	-	-	A	-	D	-	-	D	-	D	-	-	-	-	A	-	-	-	-	A	A	-	A	-	A	-	-	A	
ZINC PLATING																													
Acid Chloride 140° F	-	-	D	-	-	A	D	-	-	-	-	A	A	A	D	-	A	-	-	A	A	A	-	A	-	-	-	A	
Acid Sulfate Bath 150° F	-	-	C	-	-	A	A	-	-	-	-	D	A	A	D	-	A	-	-	A	A	A	-	B	-	-	-	D	
Acid Fluoborate Bath R.T.	-	-	-	C	-	D	-	-	-	-	-	A	A	A	D	-	A	-	-	D	A	B	-	C	-	-	-	A	
Alkaline Cyanide Bath R.T.	-	-	-	A	-	A	A	-	-	-	-	A	A	A	A	-	A	-	-	D	A	A	-	A	-	-	-	A	
Zinc Sulfate	B	A	A	A	D	A	B	B	C	C	D	C	A	A	A	B	A	A	A	A	A	-	A	A	C	A	A	A	