Quality Assurance

ISO 9001:2008 Registration

Tigerflex[™] hoses are manufactured in our own plant with ISO 9001:2008 registered quality management systems.

The ISO 9001 family of standards represents an international consensus on good manufacturing practices with the aim of ensuring that the organization consistently delivers the product or services that meet the customer's quality requirements.

ISO 9001 is a quality assurance model against which a plant's quality system can be independently audited.

Compliance Footnotes for Tigerflex[™] Catalog Products

- (01) 3A Material approved by 3-A Sanitary Standards, Inc. for multi-use plastic materials, number: 20-25, as product contact surfaces in equipment for production, processing and handling of milk and milk products.
- (02) BSE/TSE The majority of the raw materials used in our formulations are not manufactured or derived from materials of animal origin. Nor do our products come into contact with materials of animal origin during processing. Our suppliers of raw materials have assured us their compounds exceed the relevant European Guidance on minimizing the Risk of Transmitting Animal Spongiform Encephalophy Agents Via Human and Veterinary Medical Products.
- (03) FDA Material conforms to CFR title 21, parts 170-199.
- (04) FDA Material conforms to CFR title 21, parts 177.1680 and 177.2600.
- (05) FDA Material conforms to CFR title 21, parts 177.2600 and 175.105.
- (06) FDA Material conforms to CFR title 21, parts 177.2800 (5)(i), 21 CFR 170.39.
- (07) IAPMO Hose conforms to IAPMO PS 33-2007 of the International Association of Plumbing and Mechanical Officials for use on circulating, return and main drain piping on spas, hot tubs and swimming pools.
- (08) MSHA Hose approved by the United States Department of Labor's Mine Safety and Health Administration as having met Part 18, Title 30 CFR, and the Interim Fire Criteria for Acceptance of Products Taken into Underground Mines as water transfer hose.
- (09) MSHA Hose approved by the United States Department of Labor's Mine Safety and Health Administration as having met the Interim Fire Criteria Acceptance of Products Taken Into Underground Mines as a hydraulic hose/hose bundle protection sleeve. Not intended for protection of electrical cables, and not intended for the repair or conveying of damaged hydraulic hoses.
- (10) Phthalate Free Manufactured from all phthalate free materials.
- (11) RoHS The product complies with the requirements of the EU directive 2002/95/EC which is on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
- (12) USDA Hose approved by the US Department of Agriculture for use in federally inspected meat and poultry plants.

Flexibility

The terms Flexibility and Minimum Bend Radius are often used interchangeably. However, while closely related, their meanings are different.

Minimum Bend Radius is generally defined as the smallest radius to which a hose can be bent without damage. Tigerflex[™] defines damage as a 5% reduction of the hose OD at the bend point (before kinking/collapse). Other manufacturers may define damage as complete hose kinking/collapse.

Flexibility is defined as the amount of force required in order to bend the hose to a specified radius without kinking. In order to provide a better understanding of the flexibility of Tigerflex[™] hoses we've performed extensive force-to-bend testing. This data provides a clearer picture of the actual flexibility of our hoses in order to assist in your hose selection process.

Food Grade									
	Forc	Force to Bend (Lbs./F) *							
Series	2" ID x 3 ft.	3" ID x 5 ft.	4" ID x 7 ft.						
GTF/GTFE	0.3	0.8	3.5						
UVF	2.5	3.6	5.5						
WT	4.5	6.5	16.0						
WE	5.5	8.8	21.4						
2001	5.6	9.0	21.0						
WBS	5.5	13.1	22.0						
WSTF	-	14.0	22.0						
VOLT	7.8	15.0	22.0						
MILK-LT	10.0	15.0	-						
MILK	11.0	17.0	-						
FT	13.0	24.0	41.0						
2020	-	31.0	41.0						
VLT-SD	-	33.0	42.4						

Material Handling									
	Forc	Force to Bend (Lbs./F) *							
Series	2" ID x 3 ft.	2" ID x 3 ft. 3" ID x 5 ft. 4" II							
UV2	3.4	5.5	7.0						
BARK	-	-	7.6						
MULCH-LT	-	-	8.0						
TR1	3.4	5.0	8.0						
GC/GC-C	-	-	9.0						
UBK	6	8	11.5						
UV3	-	7.0	13.0						
UFC	4.8	8.0	12.2						
UF1	4.8	8.0	12.2						
UVPE	5.5	7.5	-						
AMPH	5.5	10.0	15.5						
UF2	5.5	10.1	17.2						
MULCH	-	-	18.2						
PF	-	13.0	19.0						

Ducting								
	Force to Bend (Lbs./F) *							
Series	2" ID x 3 ft.	3" ID x 5 ft.	4" ID x 7 ft.					
CG/CG-SL	0.5	1.2	2.1					
GT/GTG	0.5	1.5	2.8					
LK/LKC	-	1.8	3.0					
UV1/UVE	3.0	3.7	5.5					

Liquid Suction								
	Force to Bend (Lbs./F) *							
Series	2" ID x 3 ft.	3" ID x 5 ft.	4" ID x 7 ft.					
WH/SH	2.8	2.5	3.5					
MH	2.8	-	-					
WOR	2.8	5.3	10.0					
W	4.0	9.5	7.3					
WG	4.5	10.0	15.0					
BW	7.8	12.3	19.5					
ORV	10.0	12.0	-					
TG/TY	12.0	11.2	22.0					
TRED/TBLU	12.0	11.2	22.0					
WST	-	14.0	21.0					
CF	14.5	14.0	28.5					
TSD	14.8	18.8	-					
H/J/K	12.1	24.0	34.0					
OV	19.0	29.0	-					
S	24.6	29.0	35.5					
F/G	26.0	31.0	47.0					

A lower force-to-bend value indicates a more flexible hose.

*Values listed indicated pounds of force required to bend a straight length of hose to 180° at 68°F.

These recommendations are based on our laboratory test reports which are, to the best of our knowledge, complete and accurate. However, actual hose force-to-bend requirements can vary due to many factors such as hose age and manufacturing tolerances. Therefore, no guarantee is expressed or implied by our publication of this chart. If doubt exists, we advise that a sample of the hose in question be obtained and tested under actual conditions. These values are provided for reference only and are subject to change.

Care and Maintenance

Hoses have a limited service life and users must be alert to signs of impending failure. Users of industrial hose should have safety and inspection procedures in place. Hose users should be trained how to properly inspect a hose for signs of impending failure. Hose should be routinely inspected for signs of damage.

Length of hose service life is affected by several factors including the type of material conveyed, pressure, vacuum, number and degree of bends, amount of flexing and exposure to environmental elements. Since we have no control

over the way in which the hose is used, we do not warrant our hose for any particular service life.

Hoses and fittings should be routinely inspected for signs of damage, such as:

- Cuts, cracks, severe abrasions or holes in the hose tube, helical support or grounding wire
- Ovaling, kinking, bulging or any other deformation of the hose's normal shape
- Hardening or soft spots
- · Flaking or chipping
- Misalignment or weakening of the coupling retention
- Fitting or clamp damage such as loose clamps, missing pins, worn threads excessive corrosion

If any of these signs of damage are observed, contact your hose supplier for replacement or repair.

Recommended Practices

Hoses should only be used to convey materials compatible with hose construction. Refer to the Chemical Resistance and Application Guides in this catalog.

Hoses should not be used at levels that exceed their working pressure or vacuum ratings, and should not be subjected to severe pressure spikes or abrupt drops in pressure.

Hoses can sustain damage at high temperatures. Care should be exercised to not exceed the temperature limits of the hose. Hose should not be installed near sources of high heat.

Do not subject hose to abuse during service. Hose should not be thrown, dropped or subjected to severe impacts. Machinery should not be moved by pulling on the hose. Protect the hose from sharp edges and corners by using appropriate hose covers or sleeves.

If hose is used in a suspended position it should be supported in multiple points with use of proper hose slings in order to evenly distribute the hose weight.

Hose should not be used in applications where hose failure would result in contents exposure to open flame or other ignition sources.

When not in service hoses should be drained and stored properly.

Storage and Handling



The following storage conditions and handling procedures can enhance and substantially extend the ultimate life of Tigerflex[™] hose.

Upon receipt of Tigerflex[™] product, skids should be broken down and product inspected for shipping damage. Skids are configured for shipping purposes only.

Hose should be stored indoors out of direct sunlight. Hose should be stored a minimum of ten feet from fluorescent light fixtures.

Hose should always be stored flat on smooth surfaces. Hose should not be stored on its side as this can cause the section of the hose resting on the ground to become deformed, or "egg shaped".

Hose coils should not be stacked more than six coils high. Larger diameter hoses, 4" and above, should be stacked fewer than six coils high. Please refer to the following chart for recommended maximum stacking height requirements by hose size:

Hose Size (ID)	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"+
Max Coil Stack Height	6	6	6	6	6	6	6	5	3	2	1

Exceeding these coil stacking requirements may cause the compression load factor on the bottom coil to exceed the hose's load limitations, causing the bottom coil to flatten out.

Hose should be pulled from inventory on a first-in, first-out (FIFO) basis.

During storage, hose should be kept in its original wrapping when possible, and kept free of dust and dirt.

Hose should not be exposed to water, oils, solvents, or corrosive liquids and fumes during storage. Hose should be protected from rodents and insects.

Rubber hoses should not be stored near electrical equipment. The motor in the equipment can generate ozone, which can attack and damage rubber hose.

Hose should not be subjected to extreme temperatures. Ideal hose storage temperature is between 50°F and 70°F, and ideally should not exceed 100°F. Be aware, when the air temperature is over 90°F outdoor ground surfaces such as asphalt, concrete and gravel can be in excess of 150°F. Such extreme heat conditions could reduce service life of thermoplastic products. Do not store hoses near heat sources such as heat vents, heaters or radiators. Hoses should not be exposed to dampness or high humidity during storage.

Hose should not be kinked or run over by any equipment. Do not drag the hose during storage & shipping. In the handling of larger ID hose, dollies should be used in transporting whenever possible. Slings or handling rigs, properly placed in multiple locations throughout the hose, should be used to support heavier hose. Hanging and supporting coils using forklift forks without protection may damages hose.

The Effect of Temperature on Working Pressure & Vacuum Ratings

As a general rule, the working pressure and vacuum ratings for plastic reinforced hoses are based on room temperature conditions. The maximum allowable working pressure or vacuum/suction for a hose decreases as the temperature increases and the material becomes softer and more elastic. Excessive bending of a hose while in service can also affect the allowable service application working pressure and vacuum.

Working pressure and vacuum ratings can be affected significantly by the type of fitting used, the method of attachment, and the temperature to which the hose assembly is exposed in service. The graph below demonstrates the overall trend.



Working Pressure Ratings

Working pressure and vacuum ratings are given in this catalog at 68°F and 104°F. Between 104°F and the maximum service temperature, it must be noted that a rapid decline in the pressure or vacuum rating of the hose may occur, and all factors relating to the hose, fittings and service conditions must be taken into consideration. No warranty is expressed or implied, as applications and methods of fitting installation may vary widely. Before placing a hose in service, the user must determine the suitability of the product under the correct working conditions, and assumes all risk and liability in connection therewith.

Chemical Resistance Guides

Many new materials have been developed to handle the wide range of modern chemicals being used in industry today. Many of these materials are now being used in the construction of Tigerflex[™] hose.

The Chemical Resistance Guides which appears on the following pages have been prepared to assist the user in the selection of the correct hose for the application.

These recommendations are based on laboratory and test reports which are, to the best of our knowledge, complete and accurate. However, the degree of chemical resistance of any given material depends upon many variables, including such factors as length of exposure, temperature, pressure, fluid velocity, and chemical concentration. Therefore, no guarantee is expressed or implied by our publication of these Chemical Resistance Guides. If an element of doubt exists, we advise that a sample of the specific hose selected be obtained and tested under actual conditions.

Furthermore, listings in these Chemical Resistance Guides do not imply conformance to any U. S. Department of Agriculture (USDA), Food and Drug Administration (FDA) or any other federal, provincial or state laws which may be applicable when handling food products. For information on the conformance of any specific hose product with FDA, USDA, or 3-A Sanitary Standards, please refer to the notes accompanying the information and specifications for each hose featured in this catalog.

Warning

The Chemical Resistance Guides shown on the following pages are intended for general guidance only. The information contained therein is based upon tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. No warranty is expressed or implied, as specific application parameters, such as temperature, pressure and chemical concentrations vary widely. Furthermore, use of these hoses for handling multiple chemical products, either singly or as a mixture, may introduce uncontrollable factors relating to chemical resistance.

Before using any hose, the user is responsible for determining the suitability of the hose for the intended application. Therefore, the user assumes all risk and responsibility for determining the suitability of any hose for handling any chemical or chemicals.

Key: E -	- Excell	ent	G — (boot					
	Hose N	Hose Materials of Construction and Temperatures							
Material Handled	P	VC	Thermo Polyur	oplastic ethane					
	68°F	104°F	68°F	104°F					
Acetaldehyde	U	U	U	U					
Acetaldehyde 40 Pct.	<u> </u>	—	_	—					
Acetate Solvents-Crude	U	U	L	U					
Acetic Acid 0-10 Pct.	G	Ĺ	U	Ŭ					
Acetic Acid 10-20 Pct.	G	L	U	U					
Acetic Acid 20-30 Pct	G		U	U					
Acetic Acid 80 Pct.	L	L	Ŭ	Ŭ					
Acetic Acid Vapors	G	G	U	U					
Acetic Acid-Glacial		U	U	U					
Acetone	U	U	L	U					
Acetylene	E	E	E	E					
Acrylonitrile	E	G							
Adipic Acia Alcohol (See Type)	<u> </u>	L 	U	U 					
Allyl Alcohol 96 Pct.	U	U	U	U					
Allyl Chloride	L	L	U	U					
Alum Aluminum Acetate	E	E	E	E					
Aluminum Chloride	E	E	L	L					
Aluminum Fluoride	E	E	E	E					
Aluminum Hydroxide	E	L	G	L					
Aluminum Nitrate	Ľ	E	E	Ľ					
Aluminum Oxychloride	E	E	_	_					
Aluminum Sulfate	E	E	E	E					
Ammonia – Aqueous		U	L	U					
Ammonia-Liquid	U	U	L	U					
Ammoniated Latex	E	Ĺ	_	_					
Ammonium Bicarbonate	_	_	_	_					
Ammonium Carbonate	F	F	E G	E					
Ammonium Fluoride 25 Pct.	Ŭ	Ŭ	L	Ŭ					
Ammonium Hydrosulphide	_	_	_	—					
Ammonium Hydroxide 28 Pct.	G	G	L	UG					
Ammonium Nitrate	Ē	Ē	G	G					
Ammonium Persulfate	E	E	G	G					
Ammonium Phosphate									
(Ammonium Phosphate-Neutral	F	 F	G	G					
Ammonium Sulfate	Ē	Ē	Ĕ	Ĕ					
Ammonium Sulfide	E	E	E	E					
Ammonium Thiocyanate	E	E	G	G					
Amyl Alcohol	L	U	U	U					
Amyl Chloride	U	U	<u> </u>						
Aniline Aniline Chlorobydrate		U	U	U					
Aniline Hydrochloride	U	U	U	U					
Aniline Sulphate	_	_	_	_					
Animal Oils	E	G	—	—					
Anturaquinone Anthragunonesulfonic Acid	E F	E	—	<u> </u>					
Antimony Pentaculcride	_	_	_	_					
Antimony Trichloride	E	E	E	E					
Apple (Sauce or Juice) Aqua Begia	E	E		—					
Aromatic Hydrocarbons	Ū	Ŭ		_					
Arsenic Acid 80 Pct.	E	G	U	U					
Arylsulfonic Acid		U	U	U					
ASTM Fuel #1 Oil	G	L	Ē	Ē					
ASTM Fuel #3 Oil	Ľ	Ū	E	E					
ASTM Fuel A	G	L	E	E					
ASTM FUELD	U	U	G	L					
Baby Food	E	E	_	_					
Barium Carbonate	E	E	E	E					
Barium Chloride Barium Hydroxide	E F	E	E	E					
Barium Sulfate	Ē	Ē	E	Ē					
Barium Sulfide	E	E	E	E					

L – Limited U – Un	satisfac	tory		
	Hose N	Aaterials o and Temp	of Construc eratures	ction
Material Handled	P	VC	Therm Polyur	oplastic ethane
	68°F	104°F	68°F	104°F
Barley Beer	E	UF		
Beet-Sugar Liquor	Ē	Ē	_	_
Benzaldehyde	U	U	U	U
Benzene-Sulfonic Acid 10 Pct.	E	E	U	U
Benzoic Acid	G	L	U	U
Benzyl Alcohol		<u> </u>		<u> </u>
Berries	E	E		_
Black Liquor (Paper industry)	E	E	E	E
Bleach-12.5 Pct. Active CL	G	L	L	U
Borax Bordeaux Mixture	E	E	E	E
Boric Acid	E	E	U	U
Boron Irifluoride Brine	E	E	E G	E U
Bromic Acid	E	L	U	U
Bromine-Liquid Bromine-Water		U	U	
Brussel Sprouts	E	E	_	_
Butadiene Butane	L F	U F	— F	— F
Butanediol	-	_		
Butanol-Primary Butanol-Secondary		U	L	
Butter	G	Ľ	_	_
Butyl Acetate Butyl Alcohol	UF	U	L	U
Butyl Cellosolve	U	U		_
Butyl Phenol Butylene	L F	UG	— F	— F
Butynedial (Erythritol)	Ŭ	Ŭ	Ū	Ū
Butyraldehyde Butyric Acid 20 Pct		—		—
Calcium Bisulfite	Ē	Ē	E	Ē
Calcium Carbonate Calcium Chlorate	E	E	E	E
Calcium Chloride	Ē	Ē	L	Ŭ
Calcium Hydroxide Calcium Hypochlorite	E	E	G	
Calcium Nitrate	E	E	E	E
Calcium Phosphate Calcium Sulfate	— F	— F	— F	— F
Camphor Oil	_	_	_	_
Cane Sugar Liquors Carbon Bisulfide	E	E	_	_
Carbon Dioxide (Aqueous Solution)	Ē	E	E	E
Carbon Dioxide Gas (Wet) Carbon Disulphide	E	E	E	E
Carbon Monoxide	Ē	Ē	E	E
Carbon letrachloride Carbonic Acid	U E	UE	L	U
Carrots	E	E	-	
Castor Oil	E	E	E	E
Catsup	E	G	<u> </u>	<u> </u>
Caustic Potasii Caustic Soda	L	L	L	U
Cellosolve	L	U	G	L
Cherries	E	E	_	_
Chloracetic Acid	E	U	U	U
Chloric Acid 20 Pct.	E	Ē	U	Ŭ
Chlorinated Hydrocarbons Chlorine Gas (Drv)	U	U	—	—
Chlorine Gas (Moist)	L	Ŭ	Ŭ	U
Chlorine Water 2 Pct. Chlorine Water Saturated	L	<u> </u>	L	0
Chlorobenzene	U	U	U	U
Chloroform Chlorsulfonic Acid	U	U	U	U
Chocolate	G	Ĺ		
Chrome Alum	E	E	E	E

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice. KTFCA1115

Key: E -	- Excell	ent	G — (Good	L
	Hose N	Aaterials of and Temp	of Construc eratures	ction	
Material Handled	P	VC	Thermo Polyur	oplastic ethane	Ma
	68°F	104°F	68°F	104°F	
Chromic Acid 10 Pct.	G	L	U	U	Flu
Chromic Acid 25 Pct.	L	U	U	U	Flu
Chromic Acid 40 Pct.	L	U	U	U	Flu
Chromic Acid 50 Pct.	L	U	U	U	Flu
Cider	_	_	0	0	FOO
Citric Acid	E	E	U	U	For
Coal Tar	U	U	U	U	For
Coconut Uli Cola Drinks	L F	U F	E	E	For
Copper Chloride	Ē	G	E	E	For
Copper Cyanide	E	E	_	_	For
Copper Fluoride 2 Pct.		E	E F	E F	For
Copper Sulfate	Ē	G	Ē	E	Fru
Core Oils	E	E	E	E	Fru
Corn Oils	E	G			Fue
Creosote	U	U		<u> </u>	Fur
Cresol	U	U	L	U	Gal
Cresylic Acid 50 Pct.	U	U	U	U	Gas
Crude Oil-Sour	F	F	F	F	Gas
Cyclohexane	L	U	-	-	Gas
Cyclohexanol	U	U	L	U	Gas
Cyclonexanone Demineralized Water	U F	U F	G		Gas
Detergents, Synthetic	Ē	G	_	_	Gel
Developers, Photographic	E	E	_	_	Gin
Dextrose	F	G	F	F	GIU
Di-acetone Alcohol	_	_	_	_	Gly
Di-isodecyl Phthalate	U	U	-	-	Gly
Diazo Sails Dibutyl Phthalate		E			Gra
Dichlorobenzene	U	U	-	-	Gra
Diesel Oils	L	U	_	-	Gra
Diethyl Ether	L _				Gre
Diethylene Glycol	E	Ē	_	_	He
Diglycolic Acid	E	G	—		Hep
Dioctyl Phthalate	U	U		<u> </u>	He
Diotylphthalate	Ŭ	Ŭ	G	L	He
Disodium Phosphate	E	E	E	E	Hor
Eggs (volks or white)	E	E	<u> </u>		Hvo
Emulsifiers	E	E	-	-	Hyd
Emulsions, Photographic	E	E		_	Hyo
Ethyl Acetate	U	U	L	U	Hyd
Ethyl Acrylate	U	U	_	_	Hyd
Ethyl Alcohol	G	L	6	_	Hyo
Ethyl Alcohol 50-98 Pct.	L	Ŭ	L	U	Hyd
Ethyl Butyrate	_	_		_	Hyd
Ethyl Chloride			U	U	Hyo
Ethyl Formate	_	_			Hyd
Ethylene Bromide	E	U	U	U	Hyd
Ethylene Dichloride		U	U G	U	Hyo
Ethylene Oxide	U	Ŭ	U	Ŭ	Hyd
Fatty Acids	E	G	G	L	Нус
Ferric Chloride	E	E	G	L F	Hyc
Ferric Sulfate	E	Ē	E	Ē	Hyd
Ferrous Ammonium Citrate	_	_	_	_	Нус
Ferrous Chloride Ferrous Sulfate	E	E	F	E	Hyp
Figs	E	Ē	_	_	lod
Fish Solubles	E	E	E	G	Iso
Fixing Solution Photographic Flour	F	G			ISO ISO
Fluorine Gas-Dry	Ŭ	Ŭ	U	U	Jel

- Limited

U - Unsatisfactory

Material HandledThermoplastic Polyurethane68°F68°F104°F68°F104°FFluorselic AcidEEEEEEFluorselic Acid ADRt.EEEUUFluorselic Acid ConcentrateFor Acid ConcentrateFor Acid ConcentrateEEUUUFormic Acid 10 Pct.EGUUUFormic Acid 10 Pct.EGUUUFormic Acid 25 Pct.EGEEEFructaseEEEEEEFruit Acid 5 Pct.EGLUUUFructaseEEEEEFruit Acid 5 Pct.ECHGali Coko OrenGGGGGGas-Abural (Noh)EEEEEFurturalUUUGas-Oko OrenGGGGGGasoline-SourLUUEEEGasoline-RefinedEEEEEGasoline-SourLUEGGGasoline-SourEEEGasoline-SourEEECGrape JuiceE </th <th></th> <th colspan="8">Hose Materials of Construction and Temperatures</th>		Hose Materials of Construction and Temperatures							
B8°F 104°F 68°F 104°F Fluorobic Acid E E E E Fluorobic Acid E E E U U Fluorobic Acid F E E U U Fluorobic Acid F E E U U Motases Statid Olls, Fruit E E C	Material Handled	P	VC	Thermo Polyur	oplastic ethane				
Fluorine Gas-Wet U U U U U U Fluorosilic Acid E E E U U Fluorosilic Acid Oncentrate Food Poducts, such as Mik, Buttermik, Foric Acid E L U U U U Formic Acid 10 Pct. E G U U U U U Formic Acid 3 Pct. E E G U		68°F	104°F	68°F	104°F				
Fluorosilic Acid E E E U U Fluorosilic Acid 40 Pct. Fluorosilic Acid Concentrate Foric Acid E E L U U U Foric Acid Stado bits, Fruit E E C Foric Acid Stado bits, Fruit E E G U U Formic Acid 32 Pct. E G U C G G G G G G G G G G G G G	Fluorine Gas-Wet	U	U	U	U				
Pautonsilic Acid 0 Pet. E E U U Fluorssilic Acid Concentrate Ford Acid Concentrate Ford Acid Dis, Fruit E E U U U Forma Acid 10 Pet. E G U U U U Formic Acid 30 Pet. E G U U U U Formic Acid 30 Pet. E E E E E E Fruit Puips and Juices E E E E E E Fuilt Puips and Juices E E E E E E Fuilt Puips and Juices E E E E E E Gass Coke Oven G G G G G G Gass Mantanetured U U G Gassolace Gasolace E E E<	Fluoroboric Acid	E	E	E	E				
Fluorosilici Acid Concentrate Food Products, such as Milk, Buttermilk, E E L U U Formal Acid Oils, Fruit E E G U U U Formic Acid 10 Pct. E G U U U U Formic Acid 10 Pct. E E G U U U Formic Acid 30 Pct. E E E E E E Fruit Pulys and Julces E E E E E E Futury Machael U U U U U Galia Cacko Oven G G G E E E Gas-Matural (Met) E E E E E E Gasoline - Sour L U E E E E Gasoline - Sour E E E E E E Gasoline -	Fluorosilicic Acid Fluorosilicic Acid 40 Pct	E	E		0				
Food Products, such as Milk, Buttermilk, E E L U U Foric Acid E L U U U U Formic Acid 10 Pct. E G U U U U Formic Acid 10 Pct. E G - - - Formic Acid 30 Pct. E G - - - Formic Acid 30 Pct. E E G E E E Fructose E E E E E E E Fruit Pulps and Juices E E E E E E Furfuryl Alcohol E L U U U - - Gas-Adaural (Ver) E	Fluorosilicic Acid Concentrate	_	_	_	_				
Masses, Salad Uls, Fruit E E L U U Formic Acid 10 Pct. E G U U U U U Formic Acid 10 Pct. E G U U U U U Formic Acid 2 Pct. E G E	Food Products, such as Milk, Buttermilk,	_	_						
Formademy de 40 Pct. AqueousLUUUUFormic Acid 10 Pct.EGUUFormic Acid 10 Pct.EGUUFormic Acid 25 Pct.EGUUFormic Acid 3 Pct.EGUUFormic Acid 3 Pct.EGEEFuctoseEEEEFurturalUUUUFruit-Naps and JulcesEEEFurturalUUUUFurturalUUUFurtural Acid (AcidEEEGas-Coke OvenGGGGas-Natural (Net)EEEEGasa-Natural (Net)EEEEGasa-Natural (Net)EEEEGasoline - SourLUUEGaser Actural (Net)EEEEGilucoseEEEEGilucoseEEEEGrape JulceEEEEGrape JulceEEECGrape JulceEEEC-Grape JulceEEEEEGasoline - SourEEEEGilucoseEEEC-Grape JulceEEEGrape JulceEEE<	Molasses, Salad Uils, Fruit		E I						
Formic Acid 10 Pct. E G U U U Formic Acid 25 Pct. E G	Formaldehyde 40 Pct. Aqueous	Ŭ	U	_	_				
Formic Acid 120 Pct.UUUUUUFormic Acid 3 Pct.EGFormic Acid 3 Pct.EEGEEFruch Acid 3 Pct.EGEEFructoseEEEEEFruit Pulys and JuicesEEEEEFurturalUUUUUUFurtural AcidGLGalic AcidEEEGas-Coke OvenGGGGGGas-Natural (Net)EEEEEGas-Natural (Net)EEEEEGasoline - SourLUUGasoline - SourLUUEGGarapefuri LuiceEEEEEGinger AleEEEEEGinger AleEECGraze SugarGraze SugarGraze SugarGraze SugarGraze SugarGraze SugarGraze SugarGraze Sugar	Formic Acid 10 Pct.	E	G	U	U				
Portinic Acid 2 PcL.EGUUFormic Acid 50 PcL.LUUUFreon-12EGEEFructoseEEEEEFruit Pulps and JuicesEEEEEFurfuryl AlcoholEL	Formic Acid 100 Pct.	U	U	U	U				
Formic Acid S0 Pet.LUUUFreen-12EGEEFructoseEEEEFull OlisGLEEFurd TuryUUUUFurdry/AcoholEL	Formic Acid 25 Pct.	E	G	U	U				
Freon-12EGEEEFructoseEEEEEEFurti Pulps and JuicesEEEEEFurtirualUUUUUFurturalUUUUFurturalEL	Formic Acid 50 Pct.	L	Ű	Ŭ	Ŭ				
HUCtobsEEEEEEFull Pulps and JuicesEEEEEEFurfuralUUUUUUFurfural AcidELGalic AcidEEGas-Coke OvenGGGGGGas-Mahural (Dry)EEEEEGas-Natural (Oby)EEEEEGasoline - RefinedLUUGasoline - RefinedLUUEEGinger AleEEEEEGlucoseEEEEEGinger AleEEEEEGlucoseEEECGrape JuiceEEECGrape JuiceEEEGrape JuiceEELGrape JuiceEELGrape JuiceEELGrape JuiceEELGrape JuiceEELGrape JuiceEELGrape JuiceEELGrape Lique ALU	Freon-12	E	G	E	E				
Hunt only of all oblicesEEEEFurfuryl AlcoholELLEEFurfuryl AlcoholEL	Fructose Fruit Pulos and Juices	E F	E F	E	E				
FurturalUUUUUFurfuryl AlcoholEL——Galic AcidEEE——Gas-Coke OvenGGGGGas-MaurtacturedUUU—Gas-Natural (Dry)EEEEGas-MaurtacturedUUU—Gasoline - RefinedLUEGGasoline - SourLUEGGasoline - SourEEEEGinEEEEGiner AleEEEEGiner AleEEEEGinoEEEEGinycolic Acid 30 Pct.EEE—Grape JuiceEEL——Grape Sugar—————Grape JuiceEEL——Grape JuiceEEL——HeytachoirELUE—HeytachoirELUUUHeytachoir Acid 10 Pct.EEUUHydrogen Romide (Dry)————Hydrogen Romide AreaEEUUHydrogen Romide 30 Pct.EEUUHydrogen Romide 3-12 Pct.EGGUHydrogen Proxide 30 Pct.EEUU	Fuel Oil	G	L	Ē	Ē				
Furtury (Acoho)ELGalic AcidEEEGas-Okke OvenGGGGGGas-Matural (Ory)EEEEEGas-Natural (Wet)EEEEEGasoline - RefinedLUUEGGasoline - SourLUEEEGinger AleEEEEEGinger AleEEEEEGinger AleEEEEGGlycolic Acid 30 Pct.EEEGrage JuiceEEEGrade SugarGrease Liquor (Paper industry)EEEHeytachiorELUEHexaneLUEHexaneLUEHexaneLUGHexaneLUUUUUHydrochloric Acid 10 Pct.EEUUHydrogen Proxide 30 Pct.GUUUHydrogen Choride (Dry)Hydrogen Rowide 3-D Pct.GGUUUHydrogen Proxide 30 Pct.EEU <td>Furfural</td> <td>U</td> <td>U</td> <td>U</td> <td>U</td>	Furfural	U	U	U	U				
Lam. NullLLLGGGas-Coke OvenGGGGGGas-MarufacturedUUGas-Natural (Wet)EEEEEGas-Natural (Wet)EUUGasoline - RefinedLUUEGGasoline - SourLUEGGGelatineEEEEEGinger AleEEEEEGlucoseEEEEGGlucoseGilycerine (Gilycerol)EEEEGrade SugarGrade SugarGrade SugarEELGrade SugarELUUUUGrade SugarGrade SugarGrade CanolHeytaneLUUUUUHydrochoric Acid 10 Pct.EEUUHydrochoric Acid 48 Pct.GUUUHydrofoloric Acid 48 Pct.GUUUHydrogen Browide 50 Pct.EECHydrogen Browide 50 Pct.EECHydrogen Browide 50 Pct.<	Furfuryl Alcohol Gallic Acid	E E	L						
Gas-Manufactured Gas-Matural (Dry) Gas-Natural (Wei)UU E EGas-Natural (Wei)EEEEEEGasoline - Refined Gasoline - SourLUUEGGathetarulLUEGGGathetarulEEEEEEGinger Ale Glycorine (Glycorin)EEEEEEGlycolic (Clycorol)EEEEEEGlycolic Acid 30 Pct. Grapefruit JuiceEEEGrase Juice Graser HeptachorEEEGrease HeptachorELUEHestane Heydrochoric Acid 10 Pct. Hydrofluoric Acid 40 Pct.ELUUUHydrofluoric Acid 40 Pct. Hydrofluoric Acid 40 Pct.GHydrofluoric Acid 40 Pct. Hydrofluoric Acid 40 Pct.GUUUUHydrofluoric Acid 40 Pct. Hydrogen Proxide 30 Pct.EECHydrogen Proxide 30 Pct. Hydrogen Proxide 30 Pct.EECHydrogen Proxide 30 Pct. Hydrogen Proxide 30 Pct.EECHydrogen Proxide 30 Pct. Hydrogen Proxide 30 Pct. Hydrogen Proxide 30 Pct.EEC	Gas-Coke Oven	G	G	G	G				
Cas-Natural (Wet)EEEEEEGasoline - RefinedLUUGasoline - SourLUEGGasoline - SourLUEGGelatineEEEEEGinger AleEEEEEGlucoseEEEEEGlucoseEEEEGGlycorloEEEGGGlycorloEEECGrade SugarGrade SugarELGreaseELGreaseELGreaseELGreaseELGreaseCUUGHexanolHexanolHexanolHydrofloric Acid 10 Pct.EEUUHydrofloric Acid 10 Pct.EEUUHydrofloric Acid 48 Pct.GUUUHydrogen Proxide 30 Pct.EEHydrogen Proxide 30 Pct.EGGLUHydrogen Proxide 30 Pct.EGGLHyd	Gas-Manufactured	U	U	_	_				
Lads-Maturial (Wei)EEEEEGasolineSourUUUGasoline - SourLUEGGasoline - SourLUUEGinger AleEEEEGinger AleEEEEGlucoseEEEEGlycoli Acid 30 Pct.EEEUGrape full JuiceEEEGrape JuiceEEEGrape full JuiceEEGreen Liquor (Paper industry)EEEHeptachorELHestaneLUHeydacohoric Acid 10 Pct.EEHydrochoric Acid 10 Pct.FEUUHydrofuoric Acid 10 Pct.GUUUHydrofuoric Acid 40 Pct.GUUUHydrofuoric Acid 60 Pct.GUUUHydrogen Proxide 30 Pct.EEEHydrogen Proxide 30 Pct.EGGLUHydrogen Proxide 50 Pct.EGGLHydrogen Suffide – Ngueus SolutionEEEHydrogen Proxide 50 Pct.EGGUUHydrogen Suffide – DryEEEHydrogen Suffide – Dry <t< td=""><td>Gas-Natural (Dry)</td><td>E</td><td>E</td><td>E</td><td>E</td></t<>	Gas-Natural (Dry)	E	E	E	E				
Gasoline - RefinedLUEGGasoline - SourLUEGGelatineEEEEGinEEEEGinger AleEEEEGlycerine (Glycerol)EEEEGlycolic Acid 30 Pct.EEEUGrade Sugar	Gasoline			E	E				
Gasoline – Sour GelatineLUEGGelatineEEEEEGinEGGinger Ale GlucoseEEEEEGlucoseEEEEEGlycorine (Glycerol)EEEEGGrade SugarGrape JuiceEEEGrape JuiceEEEGreaseELGreaseELGreaseELHeptaneLUEHexaneLUGHexanol, TertiaryLUGHoneyEELUUHydrochoric Acid 10 PctHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 48 Pct.GUUUHydrogen Bronide (Dry)	Gasoline – Refined	Ľ	Ŭ	E	G				
LeitaineEEEEEEGinEGGinger AleEEEEEGlucoseEEEEEGlycorine (Glycerol)EEEGGGlycolic Acid 30 Pct.EEEUUGrade SugarGrape JuiceEEEGreaseELGreaseELGreaseELUHeptachlorEEHexaneLUGHexaneLUGHoneyEEHydrochloric Acid 10 PctHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 48 Pct.GUUUHydrogen Bromide (Dry)	Gasoline – Sour	L	U	E	G				
Link Ginger AleEEEEEGlucoseEEEEEEGlycorine (Glycerol)EEEEEGGlycorine (Glycerol)EEEEGGGlycorine (Glycerol)EEEUUUGrade Sugar	Gelatine		E G	E	E				
GlucoseEEEEEEGlycolic Acid 30 Pct.EEEEGGGrade SugarGrape JuiceEEEGrape JuiceEEEGrape JuiceEEGrean Liquor (Paper industry)EELHeptanlorELUEHexaneLUHexaneLUHexaneLUHoneyEEUUUUUHydrochloric Acid 48 Pct.ELUUUHydrofluoric Acid 49 Pct.GGUUUHydrofluoric Acid 49 Pct.GUUUUHydrofluoric Acid 49 Pct.GEEHydrofluoric Acid 49 Pct.GUUUUUHydrofluoric Acid 49 Pct.GEEHydrofluoric Acid 49 Pct. <td>Ginger Ale</td> <td>E</td> <td>E</td> <td>_</td> <td>_</td>	Ginger Ale	E	E	_	_				
Litycerne (Glycerol)EEEEEEGlycolic Acid 30 Pct.EEGGGrapefuit JuiceEE	Glucose	E	E	E	E				
LargeonLLLLUUGrade SugarGrape JuiceEEGrapefruit JuiceEELGreaseELGreene Liquor (Paper industry)EEEHeptachlorELUEHeptachlorELUHexadecanolHexaneLUGHexanol, TertiaryLUGHydrochloric Acid 10 Pct.EEUUUHydrofluoric Acid 10 PctHydrofluoric Acid 4 Pct.GGUUUHydrofluoric Acid 4 Pct.GUUUHydrofluoric Acid 4 Pct.GUUUHydrofluorosilic AcidEEEHydrofluorosilic AcidGLUUUHydrogen Bromide (Dry)Hydrogen Peroxide 3 -12 Pct.EGGLUHydrogen Peroxide 3 -12 Pct.EGGLUHydrogen Sulfide - DryEEEHydrogen Sulfide - DryEEEE	Glycerine (Glycerol)	E E	E	E	E				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Glycolic Acid 30 Pct.	Ē	E	U	U				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Grade Sugar	_	_	—	—				
Ortagen un duceELGreaseELGreane Liquor (Paper industry)EEEHeptachlorELUEHeptaneLUEHexadecanolHexaneLUGHexaneLUGHexanol, TertiaryLUGHoneyEEEHydrochloric Acid 10 Pct.ELUUHydrofluoric Acid 10 PctHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 60 Pct.GUUUHydrofluorosolic AcidEEEHydrofluorosolic AcidEGUUUHydrogen Bromide (Dry)Hydrogen Proxide 3 -12 Pct.EGGLUHydrogen Peroxide 3 -12 Pct.EGGLUHydrogen Sulfide - Aqueous SolutionEEEHydrogen Sulfide - DryEEGUUUHydrogen Sulfide - DryEEEEHydrogen Sulfide - DryEEEEEEHy	Grape Juice Grapefruit Juice		E						
Green Liquor (Paper industry)EEEHeptachlorELHeptaneLUEHexadecanolHexaneLUGHexaneLUGHexanol, TertiaryLUGHoneyEEEHydrochloric Acid 10 Pct.EEUUHydrofluoric Acid 10 Pct.GLUUHydrofluoric Acid 48 Pct.GGUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 60 Pct.GUUUHydrofluorobric AcidEEHydrofluorobric AcidCLUUUHydrogen Bromide (Dry)Hydrogen Peroxide 3 -12 Pct.EGGLUHydrogen Peroxide 30 Pct.ELLUUHydrogen Peroxide 30 Pct.ELHydrogen Peroxide 30 Pct.EEC	Grease	Ē	L	_	_				
HeptachlorELHeptaneLUEHexadecanolHexaneLUGHexane, TertiaryLUGHoneyEEEHydrochloric Acid 10 Pct.EEUUHydrofluoric Acid 10 PctHydrofluoric Acid 10 Pct.GLUUHydrofluoric Acid 48 Pct.GGUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 60 Pct.GUUUHydrofluoroboric AcidEEHydrofluoroboric AcidCLUUUHydrogen Bromide (Dry)Hydrogen Peroxide 3 -12 Pct.EGGLUHydrogen Peroxide 30 Pct.ELLUUHydrogen Peroxide 30 Pct.ELHydrogen Peroxide 30 Pct.ECHydrogen Sulfide - Aqueous SolutionEEEHydrogen Sulfide - Aqueous SolutionEEEEEHydrogen Sulfide - DryEEEEEHHydrogen Sulfide - DryEEEEEE </td <td>Green Liquor (Paper industry)</td> <td>E</td> <td>E</td> <td>_</td> <td>-</td>	Green Liquor (Paper industry)	E	E	_	-				
InternationLUEHexadecanolHexaneLUHoneyEEEHoneyEEEUUHydrochloric Acid 10 Pct.EEUUHydrofluoric Acid 48 Pct.GLUUHydrofluoric Acid 4 Pct.GGUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 60 Pct.GUUUHydrofluoric Acid 60 Pct.GLUUHydrofluoric Acid 60 Pct.GLUUHydrogen Bromide (Dry)Hydrogen Chioride (Dry)EEEHydrogen Peroxide 3 -12 Pct.EGGLHydrogen Peroxide 30 Pct.ELHydrogen Peroxide 30 Pct.ELHydrogen Peroxide 30 Pct.EL	Heptachlor	E			-				
HexaneLUHexanol, TertiaryLUGHoneyEEEHydrochloric Acid 10 Pct.EEUUHydrochloric Acid 48 Pct.ELUUHydrofluoric Acid 40 Pct.GLUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 60 Pct.GUUUHydrofluoric Acid 60 Pct.GLUUHydrofluoric Acid 60 Pct.GEEHydrofluoric Acid 60 Pct.GLUUHydrogen Bromide (Dry)Hydrogen Chioride (Dry)Hydrogen Peroxide 3 -12 Pct.EGGLHydrogen Peroxide 30 Pct.ELHydrogen Peroxide 30 Pct.ELHydrogen Peroxide 30 Pct.ECHydrogen Sulfide - Aqueous SolutionEEHydrogen Sulfide - DryEECHydrombromic Acid 20 Pct.EGUUUHydrogen Sulfide - DryEEEHydrogen Sulfide - DryEEEEEEHydrosylamine SulfateEEEEEE </td <td>Hexadecanol</td> <td>L .</td> <td>-</td> <td></td> <td>_</td>	Hexadecanol	L .	-		_				
Hexanol, TertiaryLUG—HoneyEEE——HoneyEEEUUHydrochloric Acid 10 Pct.EELUUHydrochloric Acid 10 Pct.GLUUHydrofluoric Acid 4 Pct.GGUUHydrofluoric Acid 4 Pct.GUUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 60 Pct.GUUUHydrofluoric Acid 60 Pct.GLUUHydrofluoric Acid 60 Pct.EE——Hydrogen Chioride (Dry)—————Hydrogen Chioride (Dry)—————Hydrogen Peroxide 3 -12 Pct.EGGLUHydrogen Peroxide 30 Pct.ELLUHydrogen Peroxide 30 Pct.EL——Hydrogen Peroxide 90 Pct.UUUUUHydrogen Sulfide – Aqueous SolutionEEE—Hydrogen Sulfide – DryEEC——Hydrombromic Acid 20 Pct.EEEEEHydrogen Sulfide – DryEEEEEHydrogen Sulfide – DryEEEEEHydrogen Sulfide – DryEEEEEHydrogen SolutionEEE<	Hexane	L	U	_	_				
IndusyEEImage: CHydrochloric Acid 10 Pct.EEUUHydrochloric Acid 48 Pct.ELUUHydrofuoric Acid 10 Pct.GLUUHydrofluoric Acid 48 Pct.GGUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 60 Pct.GUUUHydrofluoric Acid 60 Pct.GLUUHydrofluoric Acid 60 Pct.EEHydrofluoric Acid 60 Pct.GLUUHydrofluoric Acid 60 Pct.EGEEHydrogen Bromide (Dry)Hydrogen Proxide 30 Pct.EGGLUHydrogen Peroxide 30 Pct.ELLUHydrogen Peroxide 30 Pct.ELHydrogen Peroxide 30 Pct.ELHydrogen Peroxide 30 Pct.ELHydrogen Peroxide 30 Pct.EL	Hexanol, Tertiary		U	G	_				
Hydrochloric Acid 48 Pct.ELUUHydrocyanic Acid 10 Pct.GLUUHydrofluoric Acid 40 Pct.GGUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 60 Pct.GUUUHydrofluoric AcidGLUUHydrofluoric AcidGLUUHydrofluorosilic AcidGLUUHydrogen Debric AcidGLUUHydrogen Bromide (Dry)	Hydrochloric Acid 10 Pct.	E	E	<u> </u>	<u> </u>				
Hydrocyanic Acid 10 PctHydrofluoric Acid 10 Pct.GLUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 48 Pct.GUUUHydrofluoric Acid 60 Pct.GUUUHydrofluoric AcidEEHydrofluorosilic AcidGLUUHydrofluorosilic AcidGLUUHydrogenEGEEHydrogen Bromide (Dry)EEHydrogen Chloride (Dry) (Liquid)EEEHydrogen Peroxide 3 -12 Pct.EGGLHydrogen Peroxide 30 Pct.ELUUHydrogen Peroxide 30 Pct.ELUUHydrogen Peroxide 90 Pct.UUUUHydrogen Sulfide - Aqueous SolutionEEHydrogen Sulfide - DryEECHydrombromic Acid 20 Pct.EGUUHydrosphines LulfateEEEEHydrosphines SulfateEELUUInks	Hydrochloric Acid 48 Pct.	E	Ē	Ŭ	Ŭ				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Hydrocyanic Acid 10 Pct.	_	_						
TypeTypeTypeTypeTypeHydrofluoric Acid 46 Pct.GUUUHydrofluoroboric AcidEE $$ $$ Hydrofluoroboric AcidGLUUHydrofluoroboric AcidGLUUHydrofluoroboric AcidEEE $$ HydrogenEGEEEHydrogen Bromide (Dry) $$ $$ $$ $$ Hydrogen Chloride (Dry) (Liquid) $$ $$ EEHydrogen Peroxide 30 Pct.EEGGLHydrogen Peroxide 50 Pct.ELLUHydrogen PhosphideEL $$ $$ Hydrogen PhosphideEL $$ $$ Hydrogen Sulfide - Aqueous SolutionEEE $$ Hydrogen Sulfide - DryEEE $$ $$ Hydrogen Sulfide - DryEEE $$ $$ Hydrogen Sulfide - DryEEEE $$ $$ Hydrogen Sulfide - DryEEEEEEHydrogen Sulfide - DryEEE $$ $$ $$ Hydrogen Sulfide - DryEEE $$ $$ $$ Hydroxylamine SulfateEEEL $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ <	Hydrofluoric Acid 10 Pct. Hydrofluoric Acid 4 Pct	G	G	U	U				
Hydrofluoric Acid 60 Pct.GUUUHydrofluoroboric AcidEE $$ $$ Hydrofluoroboric AcidGLUUHydrogen Bromide (Dry)EGEEHydrogen Chloride (Dry) (Liquid) $$ $$ $$ Hydrogen Peroxide 3 -12 Pct.EGGLHydrogen Peroxide 30 Pct.ELUUHydrogen Peroxide 50 Pct.ELLUHydrogen Peroxide 90 Pct.UUUUHydrogen PhosphideEL $$ $$ Hydrogen PhosphideEEC $$ $$ Hydrogen PhosphideEL $$ $$ Hydrogen Sulfide - Aqueous SolutionEEE $$ Hydrogen Sulfide - DryEEEEHydrogen Sulfide - DryEEEEHydrogen Sulfide - DryEEEEHydroxylamine SulfateEEEEHydroxylamine SulfateEELUUInks $$ $$ $$ $$ Iodine (in Alcohol)UUUUUUIsopropyl AcetateUU $$ $$ $$ Isopropyl AlcoholEG $$ $$ $$ Isopropyl AlcoholEE $$ $$ $$	Hydrofluoric Acid 48 Pct.	G	Ű	Ŭ	Ŭ				
Hydrofnuoroboric AcidEEHydrofnuoroboric AcidGLUUHydrogenEGEEHydrogen Bromide (Dry)Hydrogen Chloride (Dry) (Liquid)EEHydrogen Chloride (Dry) (Liquid)EEHydrogen Peroxide 3 –12 Pct.EGHydrogen Peroxide 30 Pct.EELUHydrogen Peroxide 50 Pct.ELHydrogen Peroxide 90 Pct.UUUUUHydrogen PhosphideELHydrogen Sulfide – Aqueous SolutionEEEHydrogen Sulfide – DryEEEEEHydrogen Sulfide – DryEEEEEHydrogen Sulfide – DryEEEEEHydrogen Sulfide – DryEEEEEHydroxylamine SulfateEEEEEHydroxylamine SulfateEELUUUInksIodine (In Alcohol)UUUUUUIsopropyl AcetateUUIsopropyl AcetateUUUIsopropyl AlcoholEEE<	Hydrofluoric Acid 60 Pct.	G	U	U	U				
Typinalo control toGGCGFHydrogenEEGEEHydrogen Bromide (Dry)Hydrogen Chloride (Dry) (Liquid)EEHydrogen Peroxide 3 – 12 Pct.EGHydrogen Peroxide 30 Pct.EGGLHydrogen Peroxide 50 Pct.ELLUHydrogen Peroxide 90 Pct.UUUUHydrogen PhosphideELHydrogen Sulfide - Aqueous SolutionEEHydrogen Sulfide - DryEECHydrogen Sulfide - DryEEEHydrogen Sulfide - DryEEEEEHydrogen Sulfide - DryEEEEEHydrogen Sulfide - DryEEEEEHydrogen Sulfide - DryEEEEHydroxylamine SulfateEEEEEHydroxylamine SulfateEELUUUInksIodine (In Alcohol)UUUUUUIsopropyl AcetateUUIsopropyl AlcoholEGJellyEE	Hydrofluoroboric Acid	G	E		—				
Hydrogen Bromide (Dry)Hydrogen Chloride (Dry) (Liquid)EEHydrogen CyanideEEUUHydrogen Peroxide 3 -12 Pct.EGHydrogen Peroxide 30 Pct.EGGLHydrogen Peroxide 50 Pct.ELUUHydrogen Peroxide 90 Pct.UUUUHydrogen PhosphideELHydrogen PhosphideELHydrogen Sulfide - Aqueous SolutionEEHydrogen Sulfide - DryEECHydrogen Sulfide - DryEEEEHydrogen Sulfide - DryEEEEHydrogenbrowic Acid 20 Pct.EGUUHydroxylamine SulfateEEEEHydroxylamine SulfateEELHydroxylamine SulfateGLHydroxylamine SulfateUUUUUUIsoropyl AcetateUUIsopropyl AcetateUUUJellyEEE	Hydrogen	Ē	G	Ē	Ē				
Hydrogen Chloride (Dry) (Liquid)EEHydrogen CyanideEEUUHydrogen Peroxide 3-12 Pct.EGHydrogen Peroxide 50 Pct.ELLUHydrogen Peroxide 50 Pct.ELHydrogen Peroxide 90 Pct.UUUUHydrogen PhosphideELHydrogen PhosphideELHydrogen Sulfide - Aqueous SolutionEEHydrogen Sulfide - DryEECHydrogen Sulfide - DryEEEEHydrogen Sulfide - DryEEEEHydroxylamine SulfateEEE	Hydrogen Bromide (Dry)	-	—	_	_				
In ydrogen Peroxide 3 -12 Pct.EGHydrogen Peroxide 30 Pct.EGLHydrogen Peroxide 50 Pct.ELLHydrogen Peroxide 90 Pct.UUUHydrogen PhosphideELHydrogen PhosphideELHydrogen Sulfide - Aqueous SolutionEEHydrogen Sulfide - DryEEHydrogen Sulfide - DryEEEHydrogen Sulfide - DryEEEHydrogen Sulfide - DryEEEHydrogen Sulfide - DryEEEHydrogen SulfideEEEHydrogen SulfideEEEHydrogen SulfideEEEHydrogen SulfideEELUUUUUUUUInksIodine (In Alcohol)UUUUUUIsopropyl AcetateUUIsopropyl AlcoholEGJellyEE	Hydrogen Chioride (Dry) (Liquid) Hydrogen Cyanide	F	F		E				
Hydrogen Peroxide 30 Pct.EGGLHydrogen Peroxide 50 Pct.ELUUHydrogen Peroxide 90 Pct.UUUUHydrogen PhosphideELHydrogen Sulfide - Aqueous SolutionEEHydrogen Sulfide - DryEECHydrogen Sulfide - DryEEEHydrogen Sulfide - DryEEEEHydrogen Sulfide - DryEEEEHydroxylamine Acid 20 Pct.EEEEHydroxylamine SulfateEEEEHydroxylamine SulfateEELUInksIodine (In Alcohol)UUUUUIsopropyl AcetateUUIsopropyl AlcoholEGJellyEEE	Hydrogen Peroxide 3 –12 Pct.	Ē	G	_	_				
Hydrogen Peroxide 90 Pct. E L L U U Hydrogen Peroxide 90 Pct. U U U U U U Hydrogen Peroxide 90 Pct. E L — — — — Hydrogen Sulfide – Aqueous Solution E E L — — — Hydrogen Sulfide – Dry E E E — — — Hydrogen Sulfide – Dry E Image: L U U U U Image: L Image: L <td>Hydrogen Peroxide 30 Pct.</td> <td>E</td> <td>G</td> <td>G</td> <td>L</td>	Hydrogen Peroxide 30 Pct.	E	G	G	L				
Hydrogen Phosphide E L — — Hydrogen Phosphide E L — — — Hydrogen Sulfide – Aqueous Solution E E — — — Hydrogen Sulfide – Dry E E — — — — Hydrogen Sulfide – Dry E E E E E E E E Hydrogen Sulfide – Dry E E E E E E E E E E E E E Hydrogen Sulfide E Image: Subscript Sub	Hydrogen Peroxide 50 Pct. Hydrogen Peroxide 90 Pct				U 11				
Hydrogen Sulfide – Aqueous Solution E E — — Hydrogen Sulfide – Dry E E E — — Hydrogen Sulfide – Dry E E E — — Hydroginone E E E E E E Hydroguinone E E E E E H Hydroguinone E E E E E H Hydroguinone E E E L U U Inks — — — — — — Iodine (In Alcohol) U U U U U U Isopropyl Acetate U U — — —	Hydrogen Phosphide	Ĕ	Ľ	– I	–				
Hydrogen Sunde – Dry E E — — Hydroghombromic Acid 20 Pct. E G U U Hydroghombromic Acid 20 Pct. E E E E E Hydroghombromic Acid 20 Pct. E E E E E E Hydroghombromic Acid 20 Pct. E E E E E E Hydroghombrombrombrombrombrombrombrombrombrombr	Hydrogen Sulfide – Aqueous Solution	E	E	-	-				
Hydroquinone E E E E E Hydroquinone E E E - - - Hydroquinone Id E E E L U U Inks -	Hydrogen Sulfide – Dry Hydrombromic Acid 20 Pct	F	E						
Hydroxylamine Sulfate E E E — — Hydroxplamine Sulfate E E E L U Inks — — — — — — — Iodine (in Alcohol) U U U U U U Isoorotane G L — — — — Isooropyl Acetate U U U — —	Hydroquinone	E	E	E	E				
Hypochlorous Acid E E L U Inks lodine (in Alcohol) U U U U U U lso-octane G L lsopropyl Acetate U U U lsopropyl Alcohol E G Jelly E E	Hydroxylamine Sulfate	E	E	—	—				
Indime (In Alcohol) U	Hypochlorous Acid	E	E	L	U				
Iso-octane G L Isopropyl Acetate U U Isopropyl Alcohol E G Jelly E E	lodine (In Alcohol)	U	U	U	U				
Isopropyl Acetate U U — — Isopropyl Alcohol E G — — Jelly E E — —	Iso-octane	G	L	-	-				
	Isopropyl Acetate	U	U U	_	_				
	Jelly	Ē	E	_	_				

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice. KTFCA1011 69

Key: E -	- Excell	ent	G — (Good
	Hose N	Aaterials of and Temp	of Construc eratures	ction
Material Handled	P	VC	Thermo Polyur	oplastic ethane
	68°F	104°F	68°F	104°F
Jet Fuels JP 3,4,5 Kerosene	U	U	G	L
Ketones	Ŭ	Ŭ	_	<u> </u>
Kraft Liquor (Paper industry) Lacquer Thinners	EL	E U	G	_
Lactic Acid 28 Pct.	E	E	U	U
Lard Oil	E	G	E	G
Lauric Acid	E	E	L	UG
Lauryl Sulfate	Ē	Ē	_	
Lead Acetate Lead Arsenate	E	E	E	E
Lead Nitrate	—	—	—	—
Lead letra-ethyl Lemon Juice	E	G	_	_
Line Sulfur	E	E	_	—
Linseed Oil	E	E	E	E
Liquors (Chemical)	E	G	— F	– F
Magnesium Carbonate	Ē	Ē	Ē	Ē
Magnesium Chloride Magnesium Hydroxide	E	E	G	L
Magnesium Nitrate	E	E	E	E
Maleic Acid 25 Pct. Aqueous	Ē	Ē	L	Ŭ
Maleic Acid 50 Pct. Maleic Acid Concentrated	_	_	_	_
Malic Acid	E	E	L	U
Manganese Suphate Mayonnaise	E	E	_	_
Mercuric Chloride	G	G	G	L
Mercurous Nitrate	G	G	G	G
Mercury Metallic Soaps	G	G	_	_
Methyl Acetate	U	U	<u> </u>	
Methyl Alcohol Methyl Bromide	LU	U U	L —	U
Methyl Chloride	U	U	U	U
Methyl Isobutyl Ketone	U	U	L	—
Methyl Sulfate Methyl Sulfuric Acid	E	G	E	G
Methylated Spirit	<u> </u>	-	<u> </u>	
Methylene Chloride Milk	UE	U E	U 	<u> </u>
Mineral Oils Mineral Spirite	E	G	E	E
Molasses	E	E	E	E
Monochlorobenzene Naphtha	UU	UU	— E	— E
Napthalene	Ĺ	Ŭ	_	_
Nickel Chloride	E	E	E	E
Nickel Nitrate	E	E	E	E
Nicotine	Ē	Ē	Ē	Ē
Nicotine Acid Nitric Acid (Anhydrous)	E U	GU	L	UU
Nitric Acid 10 Pct.	E	G	U	U
Nitric Acid 25 Pct.	G	L	U	U
Nitric Acid 40 Pct. Nitric Acid 50 Pct	G	L	U	U
Nitric Acid 60 Pct.	G	U	U	U
Nitric Acid 68 Pct. Nitric Acid 70 Pct.	LU	UU	U 	<u> </u>
Nitrobenzene Nitrous Oxide	U	U	U	U
Oats	E	U	E	<u> </u>
Octyl Alcohol Oils and Fats	– F	6	— F	E
Oils, Petroleum	Ē	Ğ	Ē	Ē
UIEIC ACID	G	L	U	U

L – Limited U – Ur	satisfac	tory		
	Hose N	Aaterials of and Temp	of Construc eratures	ction
Material Handled	P	VC	Thermo Polyur	oplastic ethane
	68°F	104°F	68°F	104°F
Oleum	U	U	U	U
Orange Juice	E	E	_	_
Oxalic Acid	E	E	U	UF
Ozone	L	Ŭ		
Palmitic Acid 10 Pct.	E	G	U	U
Paraffin	Ē	G	_	_
Peaches Peanut Butter	E	E	_	_
Peas	Ē	E	—	_
Pentachlorophenol in Oil Pentane	G	L	_	_
Peracetic Acid 40 Pct.	U	U	U	U
Perchloric Acid 10 Pct. Perchloric Acid 70 Pct.	G L	LU	UU	UU
Perchlorethylene	U	U	-	—
Petroleum Ether	L	L	_	_
Phenol	U	U	U	U
Phenylhydrazine Hydrochloride	L	U	_	_
Phosgene (Gas)	E	G	_	—
Phosphoric Acid — 0-25 Pct.	E	E	U	U
Phosphoric Acid — 25-50 Pct.	E	E	U	U
Phosphorus (Yellow)	G	L	_	_
Phosphorus Pentoxide Phosphorus Trichloride	U	U	_	_
Photographic Chemicals	Ĕ	Ĕ	E	G
Photographic Developers Photographic Emulsions	_	_	_	_
Photographic Fixers	<u> </u>	—		—
Picric Acid Pineapple Juice	E	E	0	U
Pitch Plating Solutions	G	L	—	—
Brass	E	E	E	E
Cadmium Chromium	E	E	E	E
Copper	E	E	E	E
Gold Judium	E	E	E	E
Lead	E	E	E	E
Nickel Rhodium	E	E	E	E
Silver	E	E	E	E
Zinc	Ē	G	Ē	Ē
Potassium Acid Sulfate	E	E	E	E
Potassium Bicarbonate	Ē	Ē	Ē	Ē
Potassium Bichromate Potassium Bisulfite	E	E	E	E
Potassium Bisulphate	-	-	-	-
Potassium Borate 1 Pct. Potassium Bromate 10 Pct.	E	E	E	E
Potassium Bromide	E	E	E	E
Potassium Carbonate Potassium Chlorate	Ē	Ē	G	G
Potassium Chloride	E	E	E	G
Potassium Cuprocyanide	E	Ē		<u> </u>
Potassium Cyanide Potassium Dichromate 40 Pct	E	E	E	E
Potassium Ferricyanide	Ē	Ē	Ē	E
Potassium Fluoride Potassium Hydroxide 10 Pct.	E	E	L E	GU
Potassium Hydroxide 20 Pct.	E	E	U	U
Potassium Hydroxide 35 Pct. Potassium Hydroxide Conc.	E	E	0	0
Potassium Hypochlorite	G	L	U	U
Potassium Perborate	Ē	Ē	Ē	Ē

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice. 70 KTFCA1011

Key: E - Excellent

G – Good

L - Limited

U - Unsatisfactory

Autorial Aunoida Image: I		Hose N	Aaterials o and Temp	of Construe eratures	ction		Hose N	Aaterials o and Temp	of Construc eratures	ction
B3*F 104*F 68*F 104*F 104*F 68*F 104*F 104*F 104*F 104*F	Material Handled	P	VC	Therm Polyur	oplastic ethane	Material Handled	P	vc	Thermo Polyur	oplastic ethane
Absolution E C G C C Summer Address Parts U L L L U U U U		68°F	104°F	68°F	104°F		68°F	104°F	68°F	104°F
Problem $ -$	Potassium Perchlorite Potassium Permanganate 10 Pct. Potassium Persulfate	E G F	E G F	G G F	L L F	Sulfuric Acid 95 Pct. Sulfuric Acid 95 Pct. to Fuming Sulfurous Acid	U L G	U L I	U U II	U U II
Pressum E E E E E E Sight Dock Bar.Wet U U U Neasana Landon E E E E E E E Sight Dock Bar.Wet L U U	Potassium Phosphate		_	_	_	Sulphur Dioxide Gas-Dry	Ē	Ē	_	_
Probability Transition C E E -	Potassium Sulfate	E	E	E	E	Sulphur Dioxide Gas-Wet	U	U	_	
Phelles E L U </td <td>Potassium Thiosulfate</td> <td>E</td> <td>E</td> <td>E</td> <td>E</td> <td>Sulphur Trioxide</td> <td>E</td> <td>G</td> <td>_</td> <td>_</td>	Potassium Thiosulfate	E	E	E	E	Sulphur Trioxide	E	G	_	_
Impairs C C C Diama (SA DP.C.) U	Potatoes	E	E		_	Sulphurous Acid 10 Pct.	—	—	—	-
Priorital E L G L U	Propane Propargyl Alcohol	E	E	E	E	Sulphurous Acid 30 Pct. Tall Oil		U	_	_
Program D U </td <td>Propyl Alcohol</td> <td>E</td> <td>Ĺ</td> <td>G</td> <td>L</td> <td>Tallow</td> <td>_</td> <td>_</td> <td>—</td> <td>_</td>	Propyl Alcohol	E	Ĺ	G	L	Tallow	_	_	—	_
Prince Joss E E E E Image of the set of the se	Propylene Dichloride Propylene Clycol	U	U	U	U	Tannic Acid	E	E	L	U
Bails E E Intrafra Add E G L U U Salayie Add Intrafra Add E 6 L Intrafra Add E E Intrafra Add E E <t< td=""><td>Prune Juice</td><td>E</td><td>E</td><td></td><td>_</td><td>Tanning Liquors</td><td>E</td><td>E</td><td>_</td><td>_</td></t<>	Prune Juice	E	E		_	Tanning Liquors	E	E	_	_
Highling A, Week Allef L L L L L L -	Raisins	E	E	—	—	Tartaric Acid	E	G	L	U
Sait Wate E E G U <	Ritchfield "A" Weed Killer Salicylic Acid	E	L —	_	_	Tetraethyl Lead	E G	E	G	G
Selenic Add E G U U Iterahydronaphilader	Salt Water	E	E	G	U	Tetrahydrofurane	Ŭ	Ū	Ŭ	Ŭ
Solution C<	Selenic Acid	E	G	U	U	Tetrahydronaphihalene		—		
Silicone Public	Silicic Acid	E	E	U	U U	Tin Chloride	E	U E	E	U E
Silver Versche E	Silicone Fluids	_	—	-	_	Titanium Tertachloride	E	U	L	U
Sinker Plating Solutions E C C E C <td>Silver Cyanide</td> <td>E</td> <td>E</td> <td>E</td> <td>E</td> <td>Titanium Trichloride</td> <td>—</td> <td>—</td> <td></td> <td>—</td>	Silver Cyanide	E	E	E	E	Titanium Trichloride	—	—		—
Soap Solution E E E F E E - <	Silver Plating Solutions	E	G	E	E	Tomato Juice	E	E		_
State E E E E E H <td>Soap Solution</td> <td>E</td> <td>E</td> <td>G</td> <td>U</td> <td>Tomato Puree & Paste</td> <td>E</td> <td>E</td> <td>—</td> <td>-</td>	Soap Solution	E	E	G	U	Tomato Puree & Paste	E	E	—	-
Sodum Autimonate E E E E E E F Truthy Prosphate U <t< td=""><td>Soda Sodium Acetate</td><td>E</td><td>E</td><td>E</td><td>E</td><td>Transformer Oil</td><td>E</td><td>E</td><td>_</td><td>_</td></t<>	Soda Sodium Acetate	E	E	E	E	Transformer Oil	E	E	_	_
Sodium Autominate - - - -	Sodium Acid Sulfate	E	E	E	E	Tributyl Phosphate	U	U	—	_
addam b c c c c c c d U <td>Sodium Aluminate</td> <td></td> <td></td> <td></td> <td></td> <td>Trichlorobenzene</td> <td>—</td> <td>—</td> <td></td> <td>—</td>	Sodium Aluminate					Trichlorobenzene	—	—		—
Sodium Berzoate E	Sodium Artimonate Sodium Arsenite	Ē	Ē	E	E	Tricresyl Phosphate	U	U	U	U
Sodum listathonateEEEEEFFFFFFGLUSodum listatheEE	Sodium Benzoate	E	G	E	E	Triethanolamine	L	U	—	-
Sodum Bisultifie E C Important Important Important Important E E E E E E E E E E E E E E E E E E E	Sodium Bicarbonate Sodium Bisulfate	E	E	E	E	Trimethylamine	L	LU	_	_
Soduum Bronicie E E E E E G Turpentine L U E G E C O O U <thu< td="" th<=""><td>Sodium Bisulfite</td><td>E</td><td>E</td><td>E</td><td>E</td><td>Trisodium Phosphate</td><td>E</td><td>Ē</td><td>E</td><td>E</td></thu<>	Sodium Bisulfite	E	E	E	E	Trisodium Phosphate	E	Ē	E	E
Solum Rationation (both and of the constraint) E C L C L C L C L C L C L C L C L C L C L L C L <thl< th=""> L<</thl<>	Sodium Bromide	E	E	E	G	Turpentine	L	U	E	G
Sodium ChlorideEEEGVanille AttractSodium ChlorideEEEEGVarishUUUEGSodium DichromateEGEEGVarishUUUUUUSodium PrioryanideEEEEEGLSodium PrioryanideEEEECViny ActualsUUUUUSodium Prioryadide 10 Pct.EEELUUWater-Acid Mine WaterEEGUSodium Prioryadide 50 Pct.EEEUUWater-SaitEEGUSodium Prioryadide 54 Pct.EEEUUWater-SaitEEGUSodium Prioryadide 54 Pct.EEEEEGUUWater-SaitEEEGUSodium Mytaroki 54 Pct.EEEEEGUUWater-SaitEEEGUSodium Mytaroki 54 Pct.EEEEEGSodium Siter Sait Miter Sait Mite	Sodium Calibonate (Soda Asir)	G	L	G	G	Urine	E	E	E	E
Sodium Dyande E E E E E E E E G Varians U	Sodium Chloride	E	E	E	G	Vanilla Extract	<u> </u>	<u> </u>	_	_
Sodium FerricyanideEEEEESodium FerricyanideEEEEEGGLSodium FerricyanideEEEEGUUUUUSodium Pidroxide 10 Pct.EEGUUUUU	Sodium Cyanide Sodium Dichromate	E F	E G	F	E G	Varnish Vegetable Oils	U G	U	Е 	G
Sodium FerrocyanideEEEEEViryl ActateUUU	Sodium Ferricyanide	E	E	E	E	Vinegar	E	G	G	L
Sodium Hydroxide 10 Pct. E E L U Volta E E G I I Sodium Hydroxide 30 Pct. E G U U Water-Acid Mine Water E E G U Sodium Hydroxide 50 Pct. E E U U Water-Acid Mine Water E E G U Sodium Hydroxide 50 Pct. E E U U Water-Distilled E E G U Sodium Hydroxide 50 Pct. E E E E E G U Water-Stitled E E G U U Sodium Mydroxide 50 Pct. E E E E E G U U Water-Stitled E E G U U Water-Stitled E E E G U U Sciencessite E E E E E E E E E E E	Sodium Ferrocyanide	E	E	E	E	Vinyl Acetate	U	U	U	U
Sodium Hydroxide 35 Pct. E G U U Water-Acid Mine Water E E E G U Sodium Hydroxide 50 Pct. E E U U Water-Distilled E E E G U Sodium Hydroxide 50 Pct. E E U U Water-Distilled E E G U Sodium Hydroxide 51 Pct. E E U U Water-Notified E E G U Sodium Myochorite E E E U U Water-Satt E E G U Sodium Nitrite E E E E Weiting Agents Sodium Sulfate E E E E E E G Sodium Sulfate E E E C Sodium Sulfate E E E G	Sodium Hydroxide 10 Pct.	Ē	Ē	L	U	Vodka	E	G	_	_
Sodum Hydroxide Saturated E L Water-Distled E E G U Sodium Hydroxide Saturated E E E U U Water-Distled E E E G U Sodium Hydroxide Saturated E E E E E E E E G U Sodium Hydroxide Saturated E E E E E G U Sodium Phosphate-Acid G G U U Water-Satt E G	Sodium Hydroxide 35 Pct.	E	G	U	U	Water-Acid Mine Water	E	E	G	U
Sodium HypochloriteEEEUUWater-SaltEEEEGUSodium NitrateEEEEEEEHelp	Sodium Hydroxide 50 Pct. Sodium Hydroxide Saturated	E	E	U	U	Water-Distilled Water-Fresh	E	E	G	U
Sodium NitrateEEEEEEWetting AgentsSodium Phosphate-AcidGGUUWhiskeyEGSodium SilicateEEEEEEG <td>Sodium Hypochlorite</td> <td>E</td> <td>E</td> <td>Ŭ</td> <td>Ŭ</td> <td>Water-Salt</td> <td>E</td> <td>E</td> <td>G</td> <td>Ŭ</td>	Sodium Hypochlorite	E	E	Ŭ	Ŭ	Water-Salt	E	E	G	Ŭ
Solum Mute E E E E E E E E E E E G G G U U Whiskey E E G G G G G U U Whiskey E E E E E G	Sodium Nitrate	E	E	E	E	Wetting Agents	_	_	_	_
Sodium Silicate E E E E E E E E E G Sodium Sulfate E E E E E White Casoline E E E E Mile Casoline E E E E Mile Casoline E E E E E E E E E E E E E C	Sodium Phosphate-Acid	G	G	Ŭ	Ŭ	Whiskey	Е	G	_	_
Sodium SuitateEEEEEEF $ -$ Sodium SulfiteEEEEEEG $ -$ Sodium SulfiteEEEEEEWinesEG $ -$ Sodium SulfiteEEEEEG $ -$	Sodium Silicate	E	E	E	E	White Gasoline	E	E	E	G
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Sodium Sulfide	E	E	E	E	Wines	E	G	_	_
Sodium Inisultate (Hypo) E E E U Yeast E U Soya Beans E U Yogurt E G Yogurt E E G Yogurt E	Sodium Sulfite	E	E	E	E	Xylene or Xylol	U	U	G	L
Soya DilEG——Iogn ChlorideEEEEESoya DilEEEE———Zinc ChlorideEECIntrustrian ChlorideIntrustrian Chloride <t< td=""><td>Sodium Thisulfate (Hypo) Sova Beans</td><td>E F</td><td>E II</td><td>Е </td><td>G</td><td>Yeast</td><td>E F</td><td>UG</td><td>_</td><td></td></t<>	Sodium Thisulfate (Hypo) Sova Beans	E F	E II	Е 	G	Yeast	E F	UG	_	
Soybean OilEEZinc ChromateEEEEESpinachEEEZinc CyanideEEEEESquashEEEEEGCyanideEEEEEEStannic ChlorideEEECNitric 15 Pct., Hydrofluoric 4 Pct.EGUUUSodium Dichromate 13 Pct., Nitric Acid 16 Pct., Water 71 Pct.EGUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	Soya Oil	E	G	_	_	Zinc Chloride	E	Ē	E	E
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Soybean Oil Spinach	E	E	_	_	Zinc Chromate	E	E	E	E
Stannic Chloride E E E E E G Zinc Sulfate E E E E E E E E E E G I	Squash	Ē	Ē			Zinc Oyande	Ē	Ē	Ē	Ē
Stannous Chioride E G E G E G Starch Mixtures of Acids: Mixtures of Acids: Mixtures of Acids: E G U U Mixtures of Acids: E E G U U Sodium Dichromate 13 Pct., Nitric Acid 16 Pct., Water 71 Pct. E G U U U U U U U U U Sodium Dichromate 13 Pct., Nitric Acid 16 Pct., Water 71 Pct. E G U	Stannic Chloride	E	E	E	G	Zinc Sulfate	E	E	E	E
Staric AcidEGLUStoddard SolventLUGGStyreneUUSucroseSugar (All Forms)EESulfuric Acid 0-10 Pct.EGLUSulfuric Acid 10-40 Pct.EGUUSulfuric Acid 10-40 Pct.EGUUSulfuric Acid 10-00 Pct.EGUUSulfuric Acid 70 Pct.EGUU	Stannous Chloride Starch	E	G	E	G					
Stoddard Solvent L U G G G Nitric 15 Pct., Hydrofluoric 4 Pct. E G U U Styrene — — — — — — Sodium Dichromate 13 Pct., E G U U U U — — Sodium Dichromate 13 Pct., Nitric Acid 16 Pct., Water 71 Pct. E G U <td>Stearic Acid</td> <td>E</td> <td>G</td> <td>L</td> <td>U</td> <td>Mixtures of Acids:</td> <td></td> <td></td> <td></td> <td></td>	Stearic Acid	E	G	L	U	Mixtures of Acids:				
Output O O — Sodium Dichromate 13 Pct., E G U U Sulfur G G — — — — — Nitric Acid 16 Pct., Water 71 Pct. E G U U Sulfuric Acid 10-10 Pct. E G U	Stoddard Solvent	L	U	G	G	Nitric 15 Pct., Hydrofluoric 4 Pct.	E	G	U	U
Sugar (All Forms) E E — — — Mitric Acid 16 Pct., Water 71 Pct. E G U U Sulfuric Acid 0-10 Pct. E G L U	Sucrose			_	_	Sodium Dichromate 13 Pct.,				
Sulturi G G — — Sulfuric Acid 0-10 Pct. E G L U Sulfuric Acid 10-40 Pct. E G U U Sulfuric Acid 50-60 Pct. E G U U Sulfuric Acid 70 Pct. E G U U	Sugar (All Forms)	E	E	—	—	Nitric Acid 16 Pct., Water 71 Pct.	E	G	U	U
Sulfuric Acid 10-40 Pct. E G U U Sulfuric Acid 50-60 Pct. E G U U Sulfuric Acid 70 Pct. E G U U	Sultur Sulfuric Acid 0-10 Pct	G	G	— 1						
Sulfuric Acid 50-60 Pct. E G U U Sulfuric Acid 70 Pct. E G U U	Sulfuric Acid 10-40 Pct.	Ē	G	Ŭ	U					
	Sulfuric Acid 50-60 Pct.	E	G	U	U					
	Sununc Aciu 70 PCL		G	U	U					

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice. KTFCA1011 71

EPDM Chemical Resistance Guide

Key: G – Good

L – Limited

I U

U - Unsatisfactory

Material Handled	68°F	104°F
Acetic Acid Acetone Aluminum Acetate Aluminum Chloride Aluminum Hydroxide	G G G G	G G G G
Aluminum Sulfate Ammonia (Gas) Ammonia (Liquid) Ammonium Acetate (Conc.) Ammonium Chloride	G G G G	G G G G
Ammonium Hydroxide Ammonium Nitrate Aniline Aniline Sulfate Barium Chloride	G G L U G	G G U G
Barium Hydroxide Beer Benzen Alcohol Benzene Bromine	G G U U	G G L U U
Butyl Alcohol Calcium Carbonate Calcium Chloride (Conc.) Calcium Hyprocholite (Conc.)L Carbon Monoxide	L G L G	L G G
Carbon Tetrachloride Carbonic Acid Carbonic Acid Gas Cetyl Alcohol	L G L	L G L
Chlorine - 10% Gas - 100% Gas (Solution) Chloroform Chromate (Plating Solution)	L L U L	L L U L
Citric Acid Copper Chloride Copper Nitrate Copper Sulfate Creosote Oil	G G G U	G G G U

Material Handled	68°F	104°F
Development Sol. Dextrin	L G	L G
Dichlorethylene Dichloro Benzene Diethyl Ether	U U G	U U G
Emulsifier Ether Ethyl Acetate Ethyl Alcohol - 6% - 100%	G G L G	G G L G
Ethylene Chloride Ethylene Glycol Fluorine Glycerol Grape Sugar	L G U G	L G U G
Hormamide- 40% Hydrochloric Acid - 10% - 20%	G G G	G L L
Concentrate Hydrogen	G G	L G
Hydrogen Chloride (Anhydrous) Hydrogen Peroxide - 3% - 30% (Above 80%) Hydrogen Sulfide	G U U U G	L U U G
lodine Iron Chloride Iron Sulfate Isopropyl Alcohol Magnesium Carbonate	U G G G	U G G G
Magnesium Chloride Magnesium Hydroxide Magnesium Sulfate Methanol - 20%	G G G	G G G
Methyl Alcohol- 6% - 100% Methyl Ethel Ketone Methylene Chloride Mineral Oil	G G L U	G G L U

	0	
Material Handled	68°F	104°F
Nitric Acid - 5%	U	U
- 50%	Ĺ	Ĺ
- 70%	U	U
- 90%	U	U
Ozone	G	G
Parraffin	U	U
Perchlorethylene	U	U
Phosphoric Acid - 30%	G	G
Photosensitive Emulsion	G	G
Potassium Bichromate	U	U
Potassium Bromide Potassium Chloride	G	G
Potassium Cyanide	G	G
Potassium Fluoride	G	G
Potassium Hydroxide - 10% (Conc.)	G	G
Potassium Permanganate	U	U
Potassium Phosphate	G	G
Propylene Glycol	G	G
Salt Water	G	G
Sauce	G	G
Sodium Bicarbonate	G	G
Sodium Unioriae Sodium Hydroxide - 10%	G	G
(Conc.)	G	G
Sodium Hypoclorite - 15%	G	G
Soy Sauce	G	G
Sulfur Dioxide	U	U
Sulfuric Acid	L	L
Sulfurous Acid - 30%	L	L
Toluene	L U	U
Transformer Oil	U	U
Water Zinc Chloride	G	G
	u	u

SBR Chemical Resistance Guide

Key: G - Good

L - Limited

U - Unsatisfactory

Material Handled	68°F	Ма
1,1-dichloroethylene	U	Chro
1,2-dichloroethane	U	Citrio
Acetic Acid (10%)	L	Copp
Acetone	L	Copp
Aluminum Acetate	L	Copp
Aluminum Chloride	G	Creo
Aluminum Hydroxide	G	Dext
Aluminum Sulfide	L	Dich
Ammonia (Gas)	G	Dich
Ammonia (Liquid)	G	Dieth
Ammonium Acetate (Conc.)	G	Emu
Ammonium Bicarbonate	G	Ethe
Ammonium Chloride	G	Ethy
Ammonium Hydroxide	U	Ethy
Ammonium Nitrate	G	Ethy
Aniline	U	Ethy
Aniline Sulfate	U	Fluo
Barium Chloride	G	Form
Barium Hydroxide	G	Glyc
Beer	L	Grap
Benzene	U	Hydr
Benzyl Alcohol	U	Hydr
Bromine	U	Hydr
Butyl Alcohol	G	Hydr
Calcium Carbonate	G	Hydr
Calcium Chloride (Conc.)	G	Hydr
Calcium Chloride (in 20% Mesh)	G	Hydr
Calcium Hypochlorite (15% Cl2)	U	Hydr
Calcium Hypochlorite (Conc.)	U	Hydr
Carbon Dioxide	U	lodin
Carbon Monoxide	L	Iron
Carbon Tetrachloride	U	Iron
Carbonic Acid	L	Isopi
Carbonic Acid Gas	G	Mag
Cetyl Alcohol	L	Mag
Chlorine (10% Gas)	U	Mag
Chlorine (100% Gas)	U	Mag
Chlorine (Solution)	U	Meth
Chloroform	U	Meth

Material Handled	68°F
Chromate (25%)	U
Citric Acid	G
Copper Chloride	G
Copper Nitrate	G
Copper Sulfate	L
Creosote Oil	U
Dextrin	G
Dichlorobenzene	U
Dichloromethane	U
Diethyl Ether	U
Emulsifier	G
Ether	L
Ethyl Acetate	U
Ethyl Alcohol (100%)	G
Ethyl Alcohol (6%)	G
Ethylene Glycol	G
Fluorine	U
Formaldehyde (40%)	L
Glycerol	G
Grape Sugar	G
Hydrochloric Acid (10%)	L
Hydrochloric Acid (20%)	L
Hydrochloric Acid (Conc.)	L
Hydrogen	L
Hydrogen Chloride (Anhydride)	L
Hydrogen Peroxide (3%)	U
Hydrogen Peroxide (30%)	U
Hydrogen Peroxide (80% or more)	U
Hydrogen Sulfide	U
lodine	U
Iron Chloride	G
Iron Sulfate	G
Isopropyl Alcohol	L
Magnesium Carbonate	G
Magnesium Chloride	G
Magnesium Hydroxide	L
Magnesium Sulfate	L
Methyl Alcohol (100%)	G
Methyl Alcohol (6%)	G

Material Handled	68°F
Methyl Ethyl Ketone (MEK)	U
Mineral Oil	U
Monochlorobenzene	U
Nitric Acid (5%)	U
Nitric Acid (50%)	U
Nitric Acid (70%)	U
Nitric Acid (95%)	U
Nitrous Acid (10%)	L
Oleic Acid	U
Oxalic Acid	L
Ozone	U
Paraffin	U
Perchloroethylene	U
Phenol	U
Phosphoric Acid (30%)	U
Potassium Bichromate	U
Potassium Bromide	G
Potassium Chloride	G
Potassium Cyanide	G
Potassium Fluoride	G
Potassium Hydroxide (10%)	L
Potassium Hydroxide (Conc.)	L
Potassium Permanganate	U
Potassium Sulfate	G
Propylene Glycol	L
Sake	G
Salt Water	G
Sodium Bicarbonate	G
Sodium Chloride	G
Sodium Hydroxide (10%)	G
Sodium Hydroxide (Conc.)	G
Soy Sauce	G
Stearic Acid	L
Sulfuric Acid (10%)	U
Tetrahydrofuran	U
Toluene	U
Transformer Oil	U
Water	G
Zinc chloride	G