



Tabla Química



Instructivos y
Documentación

Poberaj S.A. es una empresa interesada en brindarle a sus clientes los mejores productos y servicios en su rubro, y es por eso que recurrimos a Organismos Internacionales para lograr las certificaciones que avalan la calidad de cada uno de los mismos.

Escaneá el
código



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TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

The Chemical Resistance Table was compiled for use as a guide in selecting the most satisfactory hose tube and cover stocks for specific chemical applications. The data included are the best available to us at this time and will be revised as additional test information is obtained. It is always advisable to test rubber stocks under actual application conditions whenever possible.

We recognize that much of the material contained in this resistance table must be, to a degree, general in nature. Factors such as method of compounding, temperature, chemical concentrations, conditions of exposure, etc., can appreciably affect polymer behavior.

For certain applications, hoses designed for these applications must be used; therefore, the choice of tube stocks is restricted. These applications are:

Steam	— Hose from the Steam Hose line
Edible Products	— FDA, 3A, USDA
Concentrated Chemicals	— Hose from the Acid-Chemical Hose line
L.P Gas	— LP Gas Hose only
Gasoline and Petroleum Products	— Hoses from the Petroleum Transfer Hose line
Hydraulic	— Hoses from Hydraulic Products Catalog

The nature of certain chemicals is such that Gates cannot offer a suitable hose to handle them.

Many of the common chemicals are included in the Chemical Resistance Table. If they are not listed, please contact Hose/Connectors Product Application, Denver.

NOTE: Before using a Gates hose to convey a chemical not listed in this Chemical Resistance Table, contact Denver Product Application for a recommendation. Phone (303) 744-5070.

Hose Selection Procedure:

- Identify the...
Size of Hose required.
Temperature of material being conveyed and environmental temperature.
Application conditions/requirements such as vibration, flexing, abrasion.
Material Being Conveyed
Pressure of operation and maximum obtainable in the system including "spikes" and pump/valve ratings.
- Locate the material being conveyed in the chemical resistance chart and identify potential tube materials: For intermittent contact or transfer service, make note of all tube materials with a **1** or **2** rating. For continuous contact applications make note of tube materials with a **1** rating only.
- Use the Industrial Hose Catalog, Industrial Hose Finder, or Hydraulic Hose Catalog to select hoses that have satisfactory working pressure ratings.
- Verify maximum and minimum operating temperatures.
- Select the hose that has the best chemical resistance rating (i.e. **1** is Preferred, **2** is Acceptable).
- Select the proper coupling for the hose chosen from the Industrial Hose/List Price Catalog

NOTE: For Gates Acid/Chemical Hose, permanent style Couplings must be used for service temperatures above 125°F (52°C).

TABLA QUÍMICA PARA MANGUERAS GATES

LISTING OF GATES HOSE STOCK TYPES

Stock Type	Composition
A	Polychloroprene (Neoprene)
A₂	Similar to Type A except it is white and is used primarily for edible products
B₁ B₂	Proprietary for special applications. Contact Denver Hose Product Application
C	Acrylonitrile Butadiene (NBR)
C₂	A blend of Type C and plastic. Used primarily as hose cover material
C₃	Modification to Nitrile tube
C₄	Modification of Nitrile with excellent abrasion, tearing and gouging resistance (cover)
D	Natural Rubber (NR) and Styrene Butadiene (SBR)
D₂	Similar to Type D, except it is white and compounded to handle food products
D₃	Natural Rubber
G	PolyVinyl Chloride (PVC)
G₁	Modified PVC
H	Isobutylene and Isoprene (Butyl)
J	Chlorinated Polyethylene (CPE)
K	Specially compounded Cross-Linked Polyethylene (Gatron™)
L	Ultra High Molecular Weight Polyethylene Ethylene (UHMWPE)
M	Chlorosulfonated Polyethylene (Hypalon®)
MQ	Silicone Rubber
P	Ethylene, Propylene Diene (EPDM)
P₂	Special for Steam Hose applications
S	Specially Compounded Thermoplastic Vulcanizate (Sanitron™)
T	Fluorinated Polyethylene (Teflon® or Neoflon®)
U	Urethane
V	Fluorocarbon (FKM)
Z	Polyamide Resins (Nylon)

NOTE: Tube and cover compounds with the same name or Gates Type can differ between hoses. Compounds are designed for specific hose application requirements. Refer to the hose product sheet for recommended applications and restrictions. Example: Petroleum Transfer Hose Longhorn (Type C Nitrile) has a different Nitrile tube compound than Fuel Line 4219G (Type C Nitrile). Please read and observe all warnings on the back of the front cover of this catalog.

TABLA QUÍMICA PARA MANGUERAS GATES

CHARACTERISTICS AND RESISTANCE INFORMATION FOR HOSE TUBE AND COVER COMPOUNDS

These ratings are for normal or usual range of the specified compounds.
Many are also modified to meet the needs of specific applications.
See notes below.

GATES TYPE	A	C	D	G	H	J	K	L	M	P	T	U	V	Z
Elastomer	Poly Chloroprene	Acrylonitrile Butadiene	Natural Rubber or Styrene Butadiene	Polyvinyl Chloride (plasticized)	Isobutylene and Isoprene	Chlorinated Polyethylene	Cross Linked Polyethylene	Ultra High Molecular Weight Polyethylene	Chloro-sulfonated Polyethylene	Ethylene Propylene Diene	Fluorinated Polyethylene	Polyurethane	Fluoro-Carbon Fluoro-elastomer	Polyamide Resins
Common Name or Trade Name	Neoprene	Buna-N Nitrile	Gum Rubber, Buna-S	PVC	Butyl	CPE	Gatlon™	UHMWPE	Hypalon®	EPDM	Neoflon® or Teflon® FEP	Urethane	FKM Viton® Fluorel®	Nylon
ASTM	CR	NBR	NR or SBR	—	IIR	CM	XLPE	UHPE	CSM	EPDM	FEP	EU	FKM	PA
Physical Strength	Good	Good	Excellent	Fair to Good	Fair to Good	Good	Good	Very Good	Good to Excellent	Good	Very Good	Excellent	Good	Good
RESISTANCE TO:														
Abrasion	Good to Excellent	Fair to Good	Excellent	Good to Excellent	Fair to Good	Good	Good	Excellent	Good to Excellent	Good	Excellent	Excellent	Good to Excellent	Good to Excellent
Weather/Ozone	Good to Excellent	Poor	Poor to Fair	Excellent	Excellent	Good	Excellent	Good	Excellent	Excellent	Excellent	Fair to Good	Excellent	Excellent
Gas Permeation	Good	Good to Excellent	Good	Good	Excellent	Good	Good	Excellent	Good to Excellent	Fair to Good	Excellent	Fair to Good	Good	Excellent
Petroleum Oils	Excellent	Excellent	Poor	Good to Excellent	Poor	Good	Excellent	Excellent	Good to Excellent	Poor	Excellent	Good	Excellent	Excellent
Gasolines	Fair to Good	Excellent	Poor	Fair	Poor	Good	Excellent	Excellent	Fair	Poor	Excellent	Fair	Excellent	Excellent
High Temperatures	Good	Good to Excellent	Fair	Poor	Excellent	Excellent	Good	Fair	Good to Excellent	Excellent	Excellent	Fair	Excellent	Good
Low Temperatures	Fair to Good	Fair to Good	Good	Poor	Good	Good	Fair to Good	Fair	Fair	Fair to Good	Good	Excellent	Good	Excellent

A₂ B₁ B₂
C₂ C₃ C₄ D₂ D₃ G₁ MQ P₂

White food grade Neoprene, complies with FDA (tube)
Proprietary for special applications: Contact Denver Hose Product Application
Modification of Nitrile with increased ozone resistance (tube and cover)
Modification to Nitrile tube
Modification of Nitrile with excellent abrasion, tearing and gouging resistance (cover)
White food grade Natural Rubber, complies with FDA (tube)
Natural Rubber
Modified PVC
Silicone Rubber
Special for Steam Hose applications

NOTE: Tube and cover compounds with the same name or Gates Type can differ between hoses. Compounds are designed for specific hose application requirements. Refer to the hose product sheet for recommended applications and restrictions.
Example: Petroleum Transfer Hose Longhorn (Type C Nitrile) has a different Nitrile tube compound than Fuel Line 4219G (Type C Nitrile). Please read and observe all warnings on the back of the front cover of this catalog.

TABLA QUÍMICA PARA MANGUERAS GATES

Gates Chemical Rating System

NOTE: Ratings are for the effect on the **polymer only**.

"1" Preferred: Constant Contact — This chemical is expected to have minor or no effect on the Polymer. Hose approved for continuous contact. Environmental changes such as temperature, concentration, etc., may promote increased degradation.

"2" Acceptable: Intermittent Contact — This polymer should give reasonably satisfactory service. Due to the nature of this chemical, and under prolonged continuous exposure, the rubber may show minor to moderate deterioration and/or solution discoloration. Hose in-tended for transfer service only. Environmental changes such as temperature, concentration, etc., may promote increased degradation.

"X" Not Recommended — The polymer is unsatisfactory for this chemical and should not be used.

"-" (Dash) — Insufficient or no data available for this material. Testing is advised.

NOTE 1. The above ratings as applied to the Chemical Resistance Table are intended as guides only. They are compiled from the best data available to us. Ratings shown in the table are based on 100% concentrated or saturated solutions, unless otherwise noted, and up to 100 F (+38°C), unless otherwise stated.

NOTE 2. If unusual conditions exist, a polymer test in the fluid is suggested.

NOTE 3. Where a chemical listed in the Resistance Table is soluble in a solvent other than water, the solvent should also be checked for its suitability with the polymer.

NOTE 4. Discoloration of fluids conveyed in the hose. There are no generally accepted standard tests for measuring or rating discoloration of fluids passing through a hose. The amount of discoloration that can be tolerated is usually established by the user on the basis of application. Obviously, products such as paint must be conveyed through a hose that has very good

non-discoloring characteristics. If the product is not visually affected, then the hose is satisfactory. For some products, the discoloration may be objectionable from a visual standpoint. Also, the concentration of the particles causing the discoloration may be objectionable if they affect the final use of the product.

Some of the more common methods of checking discoloration are:

1. Allowing the fluid to remain in a sample piece of hose for a specific period and expected operating temperature, then inspecting visually for discoloration.
2. Testing fluid as in No.1 above and then passing it through filter paper to check foreign content.
3. A more refined test can be made with a spectrophotometer. This instrument measures light transmission through the fluid before and after immersion tests with rubber stocks. This gives a relative rating expressed in percent, the original fluid being rated at 100%.

If discoloration of the product becomes a serious problem for a specific application, contact Denver Product Application for a recommendation. Phone (303) 744-5070.

NOTE 5. Fluid permeation through the tube wall needs to be considered. A tube material may show no sign of degradation, however hose failure can occur if material permeates through the tube to degrade adhesive layers or reinforcement.

Hose Coupling Material — Gates recommends hose couplings made of six materials: Iron or Carbon Steel, 304SS, 316SS, Aluminum, Brass and Polypropylene. The Chemical Resistance Table includes columns showing the suitability of a specific coupling material for the chemicals listed. In most instances, at least one coupling material is rated for each chemical. For certain chemicals, other metallic alloys or plastics than those shown in the table are required. These are generally available from coupling manufacturers, but are not stocked by Gates.



TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the polymer only!		Gates Hose / Polymers														Couplings / Adapters					
		Chemical	Form (at room temperature unless otherwise stated)	Stallion [®]	Mustang [®]	Renegade [®]	Food & Bev. Mstr.									Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum Brass	Polypropylene	
				T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G			
				Teflon [®] /Neoflon [®]	Gatlon [™]	UHMWPE	Sanitron [™]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon	PVC			
A																					
Absorption Oil	Liquid	1	2	2	X	X	1	X	X	2	X	1	2	1	1	-	-	-	-	1	-
Acetal	Colorless Liquid	1	1	1	1	1	-	-	-	-	-	-	1	X	-	1	-	-	-	1	-
Acetaldehyde	Colorless Liquid	1	1	1	1	1	X	2	2	X	1	X	X	1	2	X	1	1	1	1	1
Acetamide	Liquid above 176°F(80°C)	1	1	2	1	2	2	X	X	2	2	X	-	1	-	-	-	2	-	1	X
Acetic Acid (40% or less)	Clear Colorless Liquid	1	1	1	1	1	X	2	X	2	1	X	2	1	-	-	X	2	2	2	X
Acetic Acid (56% or less)	Clear Colorless Liquid	1	1	1	1	1	X	2	X	2	1	X	2	1	X	2	X	2	2	X	2
Acetic Acid (85% or less)	Clear Colorless Liquid	1	1	1	X	2	X	2	X	X	X	X	X	X	X	X	-	2	2	-	X
Acetic Acid (Glacial - 99.4%)	Clear Colorless Liquid	1	1	X	X	X	X	2	X	X	X	X	X	1	X	X	-	2	2	-	X
Acetic Acid, Anhydride	Clear Colorless Liquid	1	-	X	-	-	X	X	X	X	2	-	2	1	X	X	-	2	2	-	X
Acetic Anhydride (Acetic Oxide)	Colorless Liquid	1	1	1	1	1	X	X	X	-	2	X	2	1	X	X	X	2	2	2	X
Acetic Ether (Ethyl Acetate)	Colorless Liquid	1	1	1	2	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	2
Acetic Oxide (Acetic Anhydride)	Colorless Liquid	1	1	1	1	1	-	X	X	-	2	X	2	1	X	X	X	2	2	2	X
Acetone (Dimethylketone)	Colorless Liquid	1	1	X	1	2	X	X	X	X	2	X	X	1	1	X	1	1	1	1	2
Acetone Cyanohydrin	Colorless Liquid	1	1	2	2	2	-	X	X	-	2	-	-	2	-	-	-	-	-	-	-
Acetonitrile (Methyl Cyanide)	Colorless Liquid	1	1	2	1	X	X	2	2	2	2	-	2	1	-	1	-	-	-	-	-
Acetophenone	Colorless Liquid	1	2	2	2	1	X	X	X	X	1	X	-	-	-	-	-	-	-	-	2
Acetyl Chloride	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Acetyl Oxide (Acetic Anhydride)	Colorless Liquid	1	1	1	1	1	X	X	X	-	2	X	2	1	X	X	X	2	2	2	X
Acetyl-P-Toluidine (In Ether or Alcohols)	In Alcohol or Ether	1	1	1	1	1	-	X	X	-	2	X	-	1	-	-	-	-	-	-	-
Acetylene	Gas	NO HOSE AVAILABLE														-	-	-	-	-	-
Acetylene Dichloride (Dichloroethylene)	Colorless Liquid	1	X	X	X	X	-	X	X	-	X	1	-	X	1	X	-	-	-	-	X
Acetylene Tetrachloride (Tetrachloroethane)	Colorless Liquid	1	X	X	X	X	-	X	X	-	X	1	-	X	1	X	-	-	-	-	-
Acrolein (Hydroquinone Inhibited)	Colorless to Yellow Liquid	1	1	1	2	X	-	-	-	-	2	X	-	-	-	-	-	-	-	-	-
Acrylamide	Colorless Crystals	1	1	2	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Acrylates (HEA or HPA)	Colorless Liquid	1	1	1	1	X	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-
Acrylic Acid	Colorless Liquid	1	1	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Acrylic Acid (Glacial 97%)	Colorless Liquid	1	1	1	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-
Acrylic Emulsion	Liquid	1	1	1	X	X	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Acrylonitrile	Colorless Liquid	1	2	2	1	X	X	2	2	X	X	X	X	1	-	1	1	1	1	-	-
Adipic Acid (70°F)	White Crystals	1	1	X	1	1	X	X	1	X	-	1	-	-	X	X	-	-	-	-	-
Aeroshell 7A, 17 Grease	Liquid	1	-	-	-	-	1	-	-	2	-	-	-	-	-	-	1	1	1	1	-
Air, 212°F (100°C)	Colorless Gas	1	1	2	1	1	1	2	X	1	1	1	1	1	X	2	1	1	1	1	-
Air, 257°F (125°C)	Colorless Gas	1	1	X	1	1	X	X	X	2	1	1	1	1	X	X	-	-	-	-	-
Air, 300°F (149°C)	Colorless Gas	1	1	X	1	1	X	X	X	X	1	1	X	X	X	X	-	-	-	-	-
Air, Ambient	Colorless Gas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Aircraft Hyd. Oil AA	Liquid	1	1	-	-	X	1	-	-	-	X	-	-	-	-	-	1	1	1	1	-
Alachlor (Lasso)	Colorless Crystals	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	-	-
Alkaline Liquid (NOS)	In Water Solutions	1	1	1	1	1	-	-	-	-	1	2	-	1	-	-	-	-	-	-	-
Alkaryl Polyether Alcohol	-	1	1	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-
Alkyd Resin (Thermosetting Polymer)	Varies	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkylaryl Sulfonate (Alkylbenzene Sulfonate)	Powder	1	1	1	-	-	1	-	1	-	-	1	X	1	-	-	1	1	-	-	-
Allomalaic Acid (Fumaric Acid) Solution	Liquid	1	1	-	-	2	1	2	2	-	-	1	-	-	-	X	-	1	1	-	-
Allyl Alcohol	Colorless Liquid	1	1	1	1	1	1	-	1	1	1	1	1	1	X	X	-	-	-	-	-
Allyl Bromide	Colorless to Yellow Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Allyl Chloride	Colorless Liquid	1	1	X	X	X	X	X	X	X	X	1	-	2	1	X	-	1	1	-	2
Alpha Methylstyrene	Colorless Liquid	1	2	2	X	X	X	X	X	X	X	1	-	X	1	X	-	-	-	-	-
Alpha Olefin Sulfonate	Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Alpha Picoline	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alum (Aluminum Sulphate or Other)	White Crystals	1	1	-	1	1	1	-	1	1	-	-	-	-	-	-	X	X	2	X	X
Alum, Potash (Aluminum Potassium Sulfate)	White Crystals	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	X	2	2	X	X

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers																Couplings / Adapters		
		Stallion [®]	Mustang [®]	Renegade [®]	Food & Bev. Mstr.													Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316
		T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G				
		Teflon [®] /Neoflon [®]	Gatron [™]	UHMWPE	Sanitron [™]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon	PVC				
Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the polymer only .																				
Alumina - Calcined (Conveyed Pneumatically)	Granular	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Alumina Trihydrate (Conveyed Pneumatically)	White Crystalline Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Aluminum Acetate	White Powder	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	1	1	-
Aluminum Alkyl (ie Triethylaluminum)	Colorless Liquid	X	X	X	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-
Aluminum Bromide	White to Yellow Crystals	1	1	-	-	1	1	1	1	1	1	1	1	-	-	-	X	2	2	-
Aluminum Chloride Solution	White to Yellow Solution	1	1	X	1	1	1	1	1	-	1	1	-	1	-	-	X	2	2	X
Aluminum Chloride, Anhydrous	White to Yellow Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Aluminum Chlorohydrate Solution (Up to 50%)	White Solution	1	1	1	1	1	1	-	-	-	1	1	-	1	-	-	-	-	-	-
Aluminum Fluoride	White Crystals	1	1	-	-	-	-	1	1	-	-	-	-	-	-	1	X	2	2	2
Aluminum Formate (Di & Tri In Water)	In Hot Water	1	1	1	1	1	1	X	X	-	1	1	-	1	-	-	-	-	-	-
Aluminum Hydroxide (Alumina Trihydrate)	In Mineral Acid or Caustic Soda	1	1	1	1	-	X	X	X	1	1	1	-	1	X	X	-	1	1	-
Aluminum Nitrate	In Cold Water	1	1	1	1	1	1	1	1	1	1	1	1	1	-	1	X	1	1	2
Aluminum Phosphate Solution	In HCl or HNO3 (slightly soluble)	1	1	1	-	-	X	X	X	X	-	1	-	-	X	X	-	-	-	-
Aluminum Salts	Varies	1	1	-	-	1	1	1	1	1	1	-	1	-	-	1	-	2	2	2
Aluminum Sulfate	White Crystals	1	1	-	1	1	1	-	1	1	-	-	-	-	-	-	X	X	2	X
Aluminum Sulfate Solution	In Water	1	1	1	1	1	1	1	1	-	1	1	-	1	-	-	X	X	2	X
Aluminum Sulfate Solution (49.7% H2O)	Liquid	1	1	1	1	1	1	1	1	1	1	1	-	1	1	1	X	X	2	X
Amines (A class of Organic Compounds)	Varies	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amines (Aromatic - IE P-Toluidine)	White Plates (Solid)	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Amines (Mixed)	Varies	1	2	1	-	2	2	2	2	2	2	X	-	-	-	-	-	1	-	X
Amines (Primary, Secondary, Tertiary, Etc)	Varies	1	2	1	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
Aminodiphenylamine	Purple Powder	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aminoethanol (Ethanolamine)	Colorless Viscous Liquid	1	2	1	1	2	2	2	2	2	2	X	X	1	1	2	1	1	1	-
Aminoethylethanolamine	Liquid	1	2	1	2	2	-	-	-	-	1	-	-	1	1	-	-	-	-	-
Ammonia (Anhydrous)	Gas or liquid	NO HOSE AVAILABLE																-	-	-
Ammonia (Aqueous up to 30% NH3)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	-	1	1	-
Ammonia Liquor	Colorless Liquid	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammoniated Fatty Acid (ie Ammonium Caprylate)	Liquid above 167°F (75°C)	1	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Ammonium Acetate	In Water	1	1	1	1	1	1	1	1	2	1	1	-	1	2	1	-	1	1	-
Ammonium Bicarbonate	White Crystals	1	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-
Ammonium Bisulfate (50%)	Colorless Liquid	1	1	1	1	1	-	-	-	-	1	1	-	1	-	-	-	-	-	-
Ammonium Carbonate	Colorless to White Powder	1	1	-	-	-	X	-	1	2	-	-	-	-	-	1	1	1	1	-
Ammonium Chloride	White Crystals	1	-	X	-	-	-	-	1	-	-	-	-	-	-	-	-	2	2	-
Ammonium Chloride Solution	Liquid	1	1	-	-	1	2	1	1	X	1	-	1	1	X	1	-	2	2	-
Ammonium Fluoride	White Crystals	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Ammonium Hydroxide (16%, 20%, 26%, & 30%)	Colorless Liquid	1	1	1	1	-	-	-	-	-	-	2	-	-	-	-	2	1	1	-
Ammonium Hydroxide (up to 30% NH3)	Colorless Liquid	1	1	1	1	1	2	X	2	2	2	2	1	1	X	X	2	1	1	-
Ammonium Metaphosphate	White powder	1	1	-	-	1	2	2	2	2	1	-	2	-	-	2	1	1	1	X
Ammonium Nitrate	Colorless Crystals	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	1
Ammonium Nitrate Fertilizer (20.5% N, or 33.5% N)	Aggregate	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	1
Ammonium Nitrate Prills and Oil	Aggregate	1	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1	1	1
Ammonium Nitrate Solution (up to 83%)	Liquid	1	1	1	1	1	1	-	1	1	-	1	1	1	1	-	-	1	1	2
Ammonium Nitrite	Colorless crystal	1	1	-	-	-	X	X	X	2	-	-	-	1	-	-	-	1	1	-
Ammonium Persulfate	Solution in Water	1	1	-	-	-	X	-	X	-	X	-	-	-	-	-	-	1	1	-
Ammonium Phosphate	White Crystals or Powder	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	X	2	1	X
Ammonium Phosphate Solutions	Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	-	1	X	2	1	X
Ammonium Polysulfide Solution	Yellow Solution	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonium Sulfate	Gray to White Crystals	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	1
Ammonium Sulfide	Yellow Crystals	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	1
Ammonium Sulfide Solution (40-44% or less)	Liquid	1	1	-	-	1	2	1	1	-	1	1	1	1	-	1	1	1	1	X
Ammonium Thiocyanate (50-60% or less)	In Water	1	1	1	1	1	1	1	1	1	-	1	1	1	-	-	-	1	1	1

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the <i>polymer only</i> .	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers															Couplings / Adapters		
		Stallion [®] Mustang [®] Renegade [®] Food & Bev. Mstr.															Iron/Carbon Steel Stainless Steel 304 Stainless Steel 316 Aluminum Brass Polypropylene		
			T	K	L	S	P	C	D	D	A	H	V	M	J	Z			G
Chemical		Teflon [®] Gatlon [™] UHMWPE	Sanitron [™] EPDM NBR	SBR NR	Neoprene	Butyl	Fluorocarbon Hypalon [®]	CPE	Nylon	PVC									
Amyl Acetate (Banana or Pearl Oil)	Colorless Liquid	1	1	1	-	2	X	X	X	X	2	X	X	X	1	X	X		
Amyl Alcohol	Colorless Liquid	1	2	2	2	2	2	2	2	2	2	1	2	1	1	2	1		
Amyl Chloride (Chloropentane)	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-		
Amyl Chlorides (mixed)	Straw to Purple Liquid	1	2	2	X	X	X	X	X	X	X	1	X	2	1	X	-		
Amyl Chloronaphthalene	-	1	1	2	X	X	X	X	X	X	X	1	X	X	1	-	-		
Amyl Naphthalene	-	1	1	-	-	X	X	X	X	X	X	1	X	X	-	-	-		
Amyl Phenol	Clear Straw Colored Liquid	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Amylamine	Colorless Liquid	1	X	-	-	X	2	-	X	X	X	X	X	-	-	-	-		
Amylbenzene (sec amylbenzene)	Clear Liquid	1	2	2	X	X	2	X	X	2	X	1	-	-	-	-	-		
Anethole (anise camphor)	White Crystals/Liquid > 73°F(23°C)	1	2	-	-	-	X	X	X	X	X	1	X	X	X	-	-		
Anhydrous Ammonia (R 717)	Gas or Liquid	NO HOSE AVAILABLE															-	-	-
Aniline	Colorless Oily Liquid	1	2	X	1	2	X	X	X	X	2	1	X	2	X	-	-		
Aniline Dyes	-	1	1	-	1	2	X	X	X	X	2	2	X	2	-	-	-		
Aniline Hydrochloride	White Crystals	1	1	-	-	2	2	2	2	X	2	-	-	-	-	-	-		
Aniline Oil (Aniline)	Colorless Oily Liquid	1	2	X	1	2	X	X	X	X	2	1	X	2	X	-	-		
Animal Fat (Lard)	White Solid/Liquid > 108°F(42°C)	1	1	1	X	X	1	X	X	2	X	1	X	1	1	-	-		
Animal Gelatin	-	1	-	1	-	-	1	-	-	1	-	-	-	-	1	-	-		
Animal Grease, Inedible, Liquid	Liquid	1	-	-	-	X	1	-	X	2	X	1	2	-	-	-	-		
Animal Oils	Solid to Liquid	1	-	-	2	-	1	-	-	2	-	-	-	1	1	1	-		
Ant Oil (Furfural)	Colorless to Reddish Brown Liquid	1	1	-	2	X	X	X	X	2	X	2	2	1	-	X	-		
Antifreeze (Glycol Base)	Liquid	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1		
Antimony Chloride (50%)	White Powder	1	1	1	-	-	-	-	-	-	2	1	-	-	1	1	-		
Antimony Pentachloride	Reddish-yellow Liquid	1	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-		
Antimony Salts	White Crystal	1	1	-	-	1	2	-	-	-	1	1	-	-	-	1	-		
Aqua Ammonia (Ammonium Hydroxide) (30%)	Colorless Liquid	1	1	1	1	1	2	2	2	2	2	2	1	1	X	X	-		
Aqua Regia (Nitrohydrochloric Acid)	Fuming Yellow Liquid	1	2	X	X	X	X	X	X	X	X	1	X	2	X	X	-		
Argon, Compressed	Colorless Gas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-		
Aromatic Hydrocarbons	Typically Colorless Liquids	1	2	2	X	X	2	X	X	X	X	1	X	X	1	X	-		
Arsenic Acid	In Water	1	1	1	2	2	-	X	X	-	2	1	-	1	-	-	-		
Arsenic Trioxide	In Acid	1	1	1	2	X	2	X	X	2	X	1	X	-	-	1	-		
Askarel (Transformer Oil)	Varies	1	2	2	X	X	X	X	X	X	X	1	X	1	1	X	-		
Asphalt	Varies	1	2	X	X	X	2	X	X	-	X	1	-	-	X	X	-		
Asphalt (Blown)	Black Solid	-	-	X	-	-	-	-	1	-	-	-	-	-	-	-	-		
Asphalt (Cut Back)	Black Liquid	1	X	X	X	X	2	X	X	2	X	1	X	X	2	X	-		
Asphalt Emulsion	Black Liquid	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-		
Asphalt Paint	Black Liquid	1	2	X	X	X	2	X	X	-	X	1	X	-	2	X	-		
Asphaltene	In Carbon Disulfide	1	2	X	X	X	2	X	X	2	X	1	X	X	1	-	-		
ASTM Oil No. 1	Brown Liquid	1	1	1	2	X	1	X	X	1	X	1	2	1	1	2	-		
ASTM Oil No. 2	Brown Liquid	1	1	1	X	X	1	X	X	2	X	1	2	1	1	X	-		
ASTM Oil No. 3	Brown Liquid	1	1	1	X	X	1	X	X	X	X	1	X	1	1	1	-		
ASTM Reference Fuel A	Liquid	1	1	1	2	X	1	X	X	1	X	1	1	1	1	2	-		
ASTM Reference Fuel B	Liquid	1	2	1	X	X	1	X	X	2	X	1	X	2	1	X	-		
ASTM Reference Fuel C	Liquid	1	2	2	X	X	2	X	X	X	X	1	X	2	1	X	-		
ATF (Automatic Transmission Oil)	Liquid	1	1	1	X	X	1	-	-	-	X	1	-	1	-	-	-		
B																			
Baltic Types 100, 150, 200, 300, 500	Liquid	1	1	-	-	X	1	-	-	-	X	-	-	-	-	2	-		
Banvel (Ag Spray, Concentrated)	Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-		
Bardol B	Dark colored Liquid	1	1	-	-	X	X	X	X	X	X	2	X	-	-	-	-		
Barite (Natural Barium Sulfate)	White to Yellowish Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-		

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters						
		Stallion [®] Mustang [®] Renegade [™]			Food & Bev. Mstr.												Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum Brass	Polypropylene	
		T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G						
		Teflon [®]	Gatron [™]	UHMWPE	Sanitron [™]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon	PVC						
		NOTE: Ratings are for the effect on the polymer only .																				
Barium Carbonate	White Powder	1	1	-	-	X	1	X	1	1	X	1	X	X	-	1	2	1	1	-	1	1
Barium Chloride	Colorless Crystals	1	1	1	1	1	1	1	1	1	1	1	1	1	1	X	1	1	1	-	2	1
Barium Hydroxide	White Powder	1	1	1	-	1	1	X	1	1	1	1	-	1	1	-	X	2	1	1	-	1
Barium Sulfate	White to Yellowish Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	1	-	2
Barium Sulfide	Yellowish Green to Gray Powder	1	1	1	-	-	-	-	1	-	-	1	-	-	-	-	-	X	1	1	-	X
Basic Copper Arsenate	Blue to Green Powder	1	1	-	-	-	-	2	1	-	-	1	2	-	-	1	1	1	1	1	-	1
BBP (Butyl Benzyl Phthalate)	Clear Oily Liquid	1	-	-	-	-	X	-	X	-	1	X	X	-	-	-	-	-	-	-	-	-
Beer	Yellow Liquid	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beet Sugar Liquors	Colorless Solution	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	X	X	X	X	-
Bellows 80-20 Hydraulic Oil	Liquid	1	1	-	-	X	1	-	-	-	-	X	-	-	-	-	2	-	-	-	-	X
Benzaldehyde (Benzoic Aldehyde)	Colorless to Yellow Liquid	1	1	1	2	2	X	X	X	X	2	X	X	2	2	X	1	-	-	1	-	1
Benzene (Benzol)	Colorless to Yellow Liquid	1	2	2	X	X	X	X	X	X	X	1	X	X	1	X	1	1	1	1	1	1
Benzenesulfonic Acid	Liquid above 151°F (66°C)	1	1	1	-	-	-	X	X	X	2	1	2	-	-	X	X	-	2	X	-	1
Benzidine	Paste	1	2	-	-	X	2	X	1	X	X	-	-	-	-	X	1	1	1	1	1	X
Benzoic Acid	White Crystals	1	1	1	1	2	X	X	X	X	2	1	2	1	-	X	-	-	-	-	-	-
Benzoic Aldehyde (Benzaldehyde)	Colorless to Yellow Liquid	1	1	1	2	2	X	X	X	X	2	X	X	2	2	X	1	-	-	1	-	1
Benzol (Benzene)	Colorless to Yellow Liquid	1	2	X	X	X	X	X	X	X	X	1	X	X	1	X	1	1	1	1	1	X
Benzophenone	White Powder	1	1	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-
Benzotrithloride	Colorless to Yellow Liquid	1	-	-	X	X	X	X	X	X	X	1	-	X	2	X	-	-	-	-	-	-
Benzyl Acetate	Water White Liquid	1	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	Water White Liquid	1	1	1	1	2	X	X	X	X	1	1	X	1	X	1	-	-	-	-	-	-
Benzyl Alcohol, Photo Inhibited	Water White Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	1
Benzyl Benzoate	Water White Liquid	1	1	-	-	2	-	-	-	-	2	1	-	-	-	-	1	1	1	-	-	-
Benzyl Chloride	Colorless Liquid	1	2	2	X	X	X	X	X	X	X	1	-	X	2	X	1	-	-	-	-	-
Bicarbonate Of Soda	White Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Bio-Diesel (B100)	Liquid below 125°F (52°C)	1	2	2	-	-	2	-	-	-	-	1	2	2	1	X	2	2	1	1	2	1
Bio-Diesel (B100)	Liquid 125°F (52°C) and above	1	X	X	X	X	X	X	X	X	X	1	X	X	1	X	2	2	1	1	2	1
Bismuth Carbonate	White Powder	1	-	-	-	-	-	-	1	X	-	-	-	-	-	-	1	1	1	-	-	1
Bisphenol A	White Flakes	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Bitumastic	Liquid	1	-	X	-	X	2	X	X	2	X	2	X	2	-	-	1	1	1	-	1	-
Black Liquor (RXN Product Pulpwood+NaOH)	Black Alkaline Liquid	1	1	1	1	2	2	X	X	2	2	1	2	2	-	1	1	1	1	-	-	1
Black Sulfate Liquor (See "Black Liquor")	Black Alkaline Liquid	1	1	1	1	2	2	X	X	2	2	1	2	2	-	1	1	1	1	-	-	1
Blast Furnace Gas (Cooled)	Gas	1	1	-	-	-	X	X	X	X	X	1	X	-	-	X	1	1	1	-	1	-
Bleach (Chlorinated Lime)	White Powder (35-37% Cl)	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Bleach Liquor (Calcium Hypochlorite/H ₂ O)	Clear Solution	1	1	1	1	2	-	-	-	-	-	1	-	1	-	-	2	1	1	-	-	-
Borax (Sodium Borate)	White Crystals	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	2	1	1	-	2	1
Bordeaux Mixture (Slaked Lime & Copper Sulfate)	In Water	1	1	1	1	1	1	2	2	2	1	1	-	-	-	1	-	1	1	-	-	-
Boric Acid	White Powder or Colorless Scale	1	1	1	1	1	1	1	1	1	1	1	1	1	X	1	X	2	1	1	X	1
Boric Oxide	Colorless Powder	1	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-
Brake Fluid (Petroleum Base)	Liquid	1	1	-	X	X	1	X	X	2	X	1	X	1	1	2	1	1	1	-	1	X
Brake Fluid (Synthetic Base)	Liquid	1	1	-	1	1	X	X	X	X	1	X	X	1	-	2	1	1	1	-	1	-
Brine (Salt)	Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	-	2	1
Bromine	Dark Reddish Brown Liquid	1	-	-	X	X	X	-	-	X	-	1	-	-	X	X	1	1	1	1	1	-
Bromobenzene	Colorless Liquid	1	-	-	X	X	-	X	X	-	X	1	-	-	-	X	-	-	-	-	-	-
Bromochloroethane	Colorless Liquid	-	-	X	X	X	-	X	X	-	X	X	-	X	X	-	-	-	-	-	-	-
Bromochloromethane (Chlorobromomethane)	Clear Liquid	1	2	X	X	X	X	X	X	X	X	X	X	X	X	X	1	1	1	-	1	X
Bromotoluene	Clear Liquid	1	-	-	X	X	-	X	X	-	X	1	-	X	-	X	-	-	-	-	-	-
Bubble Bath Compounds	Liquid	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bunker Oil	Liquid	1	2	2	X	X	1	X	X	2	X	1	X	-	1	X	1	1	1	1	1	-
Butadiene (1,3)	Gas	1	1	-	X	X	2	X	X	X	X	1	X	-	1	X	-	1	1	-	1	1
Butanal (Butyraldehyde)	Water White Liquid	1	2	-	-	X	X	X	X	X	X	X	X	2	-	-	-	-	-	-	1	-



TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the polymer only!		Gates Hose / Polymers															Couplings / Adapters						
Chemical	Form (at room temperature unless otherwise stated)	Stallion® Mustang® Renegade™ Food & Bev. Mstr.	T K L	S P C	D D A	H V M	J Z G	Teflon®/Neolon® Gatron™ UHMWPE Sanitron™ EPDM NBR SBR NR Neoprene Butyl Fluorocarbon Hypalon® CPE Nylon PVC	Iron/Carbon Steel Stainless Steel 304 Stainless Steel 316 Aluminum Brass Polypropylene														
Butandiol (Butylene Glycol)	Colorless Oily Liquid	1	1	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-			
Butane (Gas)	Colorless Gas	USE LPG HOSE ONLY															-	-	-	-	-	-	-
Butane (Liquid)	Liquid	USE LPG HOSE ONLY															-	-	-	-	-	-	-
Butanol (Butyl Alcohol)	Colorless Liquid	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1			
Butter	Yellow to white semi-Solid to Liquid	-	-	-	2	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-			
Butter Oil (Use FDA Hose)	Yellow to white Liquid	1	-	-	2	-	-	X	X	2	-	-	-	-	-	-	1	1	1	-			
Butyric Acid	Colorless Liquid	1	1	1	1	2	-	2	2	X	2	1	X	1	X	-	-	-	-	-			
Butyl Carbitol (Diethylene Glycol Butyl Ether)	Colorless Liquid	1	1	-	2	2	2	X	X	2	2	1	-	1	-	-	1	1	1	1			
Butyl Cellosolve (EG Monobutyl Ether)	Colorless Liquid	1	1	-	1	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-			
Butyl "Oxitol™" for EG Monobutyl Ether	Colorless Liquid	1	1	-	1	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-			
Butyl Acetate	Colorless Liquid	1	2	2	1	X	X	X	X	X	2	X	X	2	1	1	2	1	1	X			
Butyl Acrylate	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-			
Butyl Alcohol (Butanol)	Colorless Liquid	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1			
Butyl Aldehyde	Water White Liquid	1	-	-	-	2	X	-	-	X	-	X	X	-	-	-	-	-	-	-			
Butyl Benzyl Phthalate (BBP)	Clear Oily Liquid	1	-	-	-	-	X	-	X	-	1	X	X	-	-	-	-	-	-	-			
Butyl Chloride	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-			
Butyl Ether	Colorless Liquid	1	1	-	-	-	2	X	X	2	2	X	-	1	-	-	1	1	1	-			
Butyl Ethyl Ether (Ethyl-n-Butyl Ether)	Liquid	1	-	-	-	2	-	X	-	X	-	2	-	-	-	-	-	-	-	-			
Butyl Formate	Colorless Liquid	1	-	-	-	-	X	-	X	X	-	-	-	-	-	-	-	-	-	-			
Butyl Mercaptan (2-Methyl-2-Butanethiol)	Liquid	1	1	-	X	X	-	X	X	-	X	1	-	-	-	X	-	1	1	-			
Butyl Methacrylate	Colorless Liquid	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Butyl Stearate	Colorless Liquid	1	1	-	-	X	2	X	X	X	X	1	-	2	-	1	1	1	1	-			
Butylamine	Colorless Liquid	1	1	-	-	-	X	X	X	X	X	X	X	2	-	-	1	1	1	X			
Butylene Glycol (Butandiol)	Colorless Oily Liquid	1	1	2	-	-	-	-	-	-	-	1	-	X	-	-	-	-	-	-			
Butyraldehyde (Butanal)	Water White Liquid	1	2	-	-	X	X	X	X	X	X	X	X	2	-	-	-	-	1	-			
Butyric Acid	Colorless Liquid	1	1	1	1	1	-	-	-	-	1	1	X	1	1	1	X	1	1	2			
Butyric Anhydride	Water White Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
C																							
Cadmium Acetate (Soluble in H ₂ O & Alcohols)	In Water or Alcohol	1	-	-	-	-	X	-	X	-	1	X	-	-	-	-	-	-	-	-			
Cake Alum (Aluminum Sulfate)	White Crystals	1	1	-	1	1	1	-	1	1	-	-	-	-	-	-	X	X	2	X			
Cake Alum Solution (Al Sulphate up to 50%)	In Water	1	1	1	1	1	1	-	-	-	1	1	-	1	1	1	-	-	-	-			
Calcine Liquor (Radioactive Waste)	In Water Solution	1	1	-	-	1	1	-	-	-	1	1	-	-	-	-	1	1	1	2			
Calcium Acetate	Powder	1	1	-	-	1	X	2	2	X	1	X	X	1	-	-	1	1	1	-			
Calcium Aluminate (Soluble in Acids)	In Acid	1	-	-	-	-	1	-	1	1	1	1	1	-	-	-	-	-	-	-			
Calcium Aluminate (Tricalcium Aluminate)	Crystals or Powder	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-			
Calcium Arsenate	In Dilute Acid	1	1	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-			
Calcium Bisulfide (Calcium Hydrosulfide)	In Alcohol or Water	1	1	-	-	-	1	2	2	1	1	1	1	1	-	2	-	2	1	-			
Calcium Bisulfite (Calcium Hydrogen Sulfite)	Yellow Liquid	1	1	-	-	-	1	2	2	1	1	1	1	1	-	1	-	1	1	1			
Calcium Bromide Solution	In Water or Alcohol	1	1	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-			
Calcium Carbonate	Solid White Powder	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Calcium Carbonate Slurry	Solid in H ₂ O	1	-	-	-	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-			
Calcium Chlorate	In Water or Alcohol	1	1	-	-	2	1	2	2	1	2	-	1	-	-	1	-	2	1	-			
Calcium Chloride, Dry	White solid	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	X	2	1	-			
Calcium Chloride, Liquid (Not For Food)	In Water or Alcohol	1	1	-	-	1	1	1	1	1	1	1	1	1	X	1	-	-	-	-			
Calcium Chloride, Liquid, Food Grade 33%	In Water	1	-	-	-	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-			
Calcium Hydrogen Sulfite (Calcium Bisulfite)	Yellow Liquid	1	1	-	-	-	1	2	2	1	1	1	1	1	-	1	-	1	1	-			
Calcium Hydrosulfide (Calcium Bisulfide)	In Alcohol or Water	1	1	-	-	-	1	2	2	1	1	1	1	1	-	2	-	2	1	-			
Calcium Hydroxide (Hydrated or Slaked Lime)	Solid White Powder	1	1	-	-	1	-	2	1	1	1	1	X	1	1	-	X	X	1	-			
Calcium Hydroxide Solutions	In Glycerol or Acids	1	1	X	-	-	2	-	-	-	-	-	-	-	X	-	2	1	1	X			
Calcium Hypochlorite	Solid White Crystals	1	2	X	-	-	-	X	X	X	2	-	2	1	X	2	-	-	-	-			

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303)744-5070 1 = Preferred - Constant Contact 2 = Acceptable- Intermitent Contact X = Not Recommended - = No Data

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303)744-5070 1 = Preferred - Constant Contact 2 = Acceptable- Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the <i>polymer only!</i>	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers																Couplings / Adapters	
		Stallion [®] Mustang [®] Renegade [™] Food & Bev. Mstr.																Iron/Carbon Steel Stainless Steel 304 Stainless Steel 316 Aluminum Brass Polypropylene	
			Teflon [®] / Neoflon [®] Gatron [™] UHMWPE	Sanitron [™] EPDM NBR	SBR NR	Neoprene	Butyl	Fluorocarbon [®] Hypalon [®]	CPE Nylon PVC										
										T	K	L	S	P	C	D	D		
Chemical		T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G			
Chloroaniline	Amber Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
Chlorobenzene (Phenyl Chloride) (Monochlorobenzene)	Clear Liquid	1	2	-	X	X	X	X	X	X	X	1	X	X	X	X	1	1	
Chlorobromomethane (Bromochloromethane)	Clear Liquid	1	2	X	X	X	X	X	X	X	X	X	X	X	X	X	1	1	
Chlorodifluoromethane (Freon 22)	Gas	SPECIAL HOSE REQUIRED																	
Chloroethane (Ethylene Dichloride)	Colorless Liquid	1	2	2	X	X	X	X	X	X	X	1	X	X	X	X	-	-	
Chloroform	Colorless Liquid	1	2	2	X	X	X	X	X	X	X	1	X	X	2	X	1	1	
Chloronaphthalene (Chlorinated Napthalene)	Oily Liquid to Solid	1	-	-	-	X	X	X	X	X	X	1	X	-	-	-	-	-	
Chloropentane (n-amyl chloride)	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	1	
Chlorophenol	In Benzene, Alcohol, Ether	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chloropicrin Mixture	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	
Chloropropylene Oxide (Epichlorohydrin)	Volatile Liquid	1	2	-	X	X	-	-	-	-	-	X	-	-	-	-	1	-	
Chlorosulfonic Acid	Colorless to Light Yellow Liquid	NO HOSE AVAILABLE																	
Chlorothene (TM for chlorinated solvents)	Colorless Liquid	1	1	X	-	-	X	-	-	X	-	2	-	-	-	-	-	1	
Chlorotoluene	Colorless Liquid	1	-	-	X	X	X	X	X	X	X	1	X	X	-	X	1	1	
Chlorox	Colorless Liquid	1	2	1	-	-	-	2	2	2	2	-	2	1	1	1	-	2	
Chocolate Syrup	Liquid	-	-	-	1	-	-	-	-	-	-	-	-	-	1	1	-	-	
Chrome Alum (Chromium Potassium Sulfate)	In Water	1	1	-	-	1	1	1	1	1	1	1	1	-	1	1	-	1	
Chromic Acid (100%)	Dark Red Crystals	1	X	2	-	-	-	-	-	-	-	1	-	-	-	X	X	X	
Chromic Acid (25% Solution or less)	In Water	1	1	1	1	2	X	X	X	X	X	1	2	1	X	X	X	X	
Chromic Acid (50% Solution with water)	In Water	1	1	1	1	2	X	X	X	X	X	1	2	1	X	X	X	1	
Chromic Acid (Chromium Trioxide)	Purplish-Red Crystals	1	X	2	-	-	-	-	-	-	-	1	-	-	-	X	X	2	
Chromic Chloride	In Water	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	
Chromium Trioxide (Chromic Acid)	Purplish-Red Crystals	1	X	2	-	-	-	-	-	-	-	1	-	-	-	X	X	2	
Cider	Liquid	1	-	-	1	-	-	-	-	-	-	-	-	-	-	2	-	-	
Cinene (Dipentene)	Colorless Liquid	1	2	-	X	X	X	X	X	-	-	1	-	-	-	-	-	-	
Citgo FR Fuels	Liquid	1	1	-	-	1	X	-	-	-	1	-	-	-	-	2	-	-	
Citric Acid Solution	In Water	1	1	1	1	2	X	2	2	1	2	1	1	-	X	1	X	2	
Coal Gas (Coke Oven Gas, Max 120°F/49°C)	Gas	1	-	-	X	-	-	-	-	-	-	-	-	1	-	1	-	-	
Coal Tar	Black, viscous Liquid	1	-	-	X	X	2	X	X	2	X	1	X	2	X	X	1	1	
Coal Tar Pitch (Roofing)	Liquid above 212°F (100°C)	1	-	-	X	X	2	X	X	2	X	1	2	2	-	X	-	-	
Cobalt Nickel Plating Solution	Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	X	-	-	2	
Cocoa Butter (Theobroma Oil)	Liquid above 95°F (35°C)	1	1	2	2	-	2	X	X	2	-	-	-	-	-	-	1	1	
Coconut Oil	Liquid above 77°F (25°C)	1	-	-	X	2	1	X	X	1	2	1	2	-	1	2	-	-	
Cod Liver Oil	Pale Yellow Liquid	1	1	-	2	2	X	X	X	X	2	1	X	-	-	-	1	1	
Coke Oven Gas (300°F (149°C) or less)	Gas	1	1	-	X	X	X	X	X	X	X	1	2	-	-	-	1	1	
Copper Arsenate (Cupric Arsenate)	In Dilute Acid	1	1	-	-	-	-	2	2	-	-	1	2	-	-	-	1	1	
Copper Chloride (Cupric Chloride)	In Water	1	1	-	-	-	2	2	2	2	2	1	2	2	X	1	X	X	
Copper Cyanide (Cupric Cyanide)	In Dilute Acids or Alkalies	1	1	-	-	2	2	2	2	2	2	1	2	-	-	1	-	1	
Copper Nitrate (Cupric Nitrate)	In Water	1	1	-	-	1	1	2	2	1	1	1	1	1	-	1	X	1	
Copper Sulfate (Cupric Sulfate)	In Water	1	1	-	-	2	1	2	2	1	2	1	1	1	X	1	X	1	
Copper Sulfide (Soluble in Nitric Acid)	In Nitric Acid	1	-	-	-	1	-	-	X	-	-	1	1	1	-	-	-	-	
Corn Oil	Pale Yellow Liquid	1	1	-	2	2	2	X	X	2	2	1	X	2	-	1	1	1	
Corn Syrup (Glucose Syrup)	Clear Liquid	1	2	-	1	2	2	2	2	2	2	2	2	-	-	-	1	1	
Cottonseed Oil	Liquid, several colors	1	1	-	2	2	2	-	-	1	-	1	2	2	-	-	1	1	
Creosote (high Napthalene/Anthracene)	Liquid	X	2	X	X	-	2	X	X	X	2	1	X	-	-	X	2	1	
Cresol (Methyl Phenol)	Liquid above 95°F (35°C)	1	2	-	-	-	X	X	X	X	2	1	X	1	X	-	2	1	
Cresylic Acid	Liquid	1	-	-	-	X	X	X	X	X	X	1	X	-	X	-	-	-	
Crotonic Acid (Methylacrylic Acid)	White Crystalline Solid	1	1	1	1	2	2	X	X	-	1	1	-	1	X	-	1	X	
Crude Oil (Crude Petroleum Oil)	Liquid	1	1	-	X	X	1	X	X	2	X	1	2	2	-	1	1	1	
Crude Wax	Liquid above 200°F (93°C)	1	2	-	-	-	2	-	-	-	2	1	-	-	-	1	1	1	
Cryolite (Greeland Spar)	In Sulfuric Acid	1	2	-	-	X	1	X	X	2	X	1	X	-	-	-	1	1	

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the <i>polymer</i> only!		Gates Hose / Polymers																Couplings / Adapters					
		Stallion [®]	Mustang [™]	Renegade [™]	Food & Bev. Mstr.													Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypropylene
		T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G							
		Teflon [®] /Neoflon [™]	Gatlon [™]	UHMWPE	Sanitron [™]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon	PVC							
Chemical	Form (at room temperature unless otherwise stated)																						
Cryolite (Greeland Spar)	In Sulfuric Acid	1	2	-	-	X	1	X	X	2	X	1	X	-	-	-	1	1	1	-	1	X	
Cumene (Isopropyl Benzene)	Colorless Liquid	1	2	-	X	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	
Cupric Arsenate (Copper Arsenate)	In Dilute Acid	1	1	-	-	-	-	2	2	-	-	1	2	-	-	-	1	1	1	-	-	-	
Cupric Chloride (Copper Chloride)	In Water	1	1	-	-	-	-	2	2	2	2	1	2	2	X	1	X	X	1	-	X	1	
Cupric Cyanide (Copper Cyanide)	In Dilute Acids or Alkalies	1	1	-	-	2	2	2	2	2	2	1	2	-	-	1	-	1	1	-	X	1	
Cupric Nitrate (Copper Nitrate)	In Water	1	1	-	-	1	1	2	2	1	1	1	1	1	-	1	X	1	1	-	X	1	
Cupric Sulfate (Copper Sulfate)	In Water	1	1	-	-	2	1	2	2	1	2	1	1	1	X	1	X	1	1	X	X	1	
Cutting Oil (Mineral Oil Base)	Liquid	1	2	-	-	X	1	X	X	2	X	1	X	-	-	-	1	1	1	-	1	X	
Cutting Oil, Sulfur Base	Liquid	2	-	-	-	1	-	-	X	-	-	-	-	-	-	-	1	1	1	-	1	1	
Cutting Oil, Water Soluble	Liquid	1	-	-	-	1	-	-	X	-	-	-	-	-	-	-	1	1	1	-	1	1	
Cyanide, Copper (Cupric Cyanide)	In Dilute Acids or Alkalies	1	1	-	-	2	2	2	2	2	2	1	2	-	-	1	-	1	1	-	X	1	
Cyanide, Mercuric	In Water	1	1	-	-	2	2	2	2	1	2	-	1	-	-	-	-	-	-	X	-	1	
Cyanide, Potassium	In Water	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	
Cyanide, Silver	In Nitric Acid	1	1	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	1	
Cyanide, Sodium	In Water	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	2	1	1	X	X	-	
Cyclohexane	Colorless Liquid	1	2	1	-	X	2	X	X	X	X	1	X	1	-	X	1	1	1	-	1	X	
Cyclohexanol	Colorless, oily Liquid	1	2	-	-	X	2	X	X	2	X	1	2	1	-	X	-	-	-	-	-	1	
Cyclohexanone	Colorless to yellow Liquid	1	1	-	-	X	X	X	X	X	X	X	X	2	-	X	-	1	1	2	-	X	
Cyclohexylamine	Colorless Liquid	-	-	-	-	1	-	X	-	-	1	X	-	-	-	-	-	-	-	-	-	-	
Cyclopentane	Colorless Liquid	1	-	-	-	X	2	-	X	2	X	1	X	-	-	-	-	-	-	-	-	-	
Cyclopentanol	Colorless Liquid	1	-	-	-	2	-	X	-	-	X	2	X	-	-	-	-	-	-	-	-	-	
Cyclopentanone	Water white Liquid	-	-	-	-	X	-	X	-	-	X	X	X	-	-	-	-	-	-	-	-	-	
Cymene	Colorless Liquids	1	2	-	-	X	X	X	X	X	2	X	2	2	-	X	1	1	1	1	1	-	
Cymene (Isopropyltoluene)	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	1	1	1	1	-	
D																							
Decalin (TM for decahydronaphthalene)	Colorless Liquid	1	2	2	X	X	2	X	X	-	X	1	X	2	1	-	-	-	-	-	1	1	
Decanal (Decyl Aldehyde)	Colorless to yellow Liquid	1	-	-	-	-	X	-	X	-	X	X	X	-	-	-	-	-	-	-	-	-	
Decanol (Decyl Alcohol)	Colorless, water white Liquid	1	-	-	-	-	1	-	X	X	X	2	2	-	-	X	-	-	-	-	-	-	
Decyl Aldehyde (n-decanal)	Colorless to yellow Liquid	1	-	-	-	-	X	-	X	-	X	X	X	-	-	-	-	-	-	-	-	-	
Deicing Fluid (ethylene or propylene glycol)	Orange Liquid	1	1	1	1	1	1	-	-	1	1	1	2	1	-	1	2	1	1	1	1	1	
Denatured Alcohol	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	
Detergent Sol. (Sodium dodecylbenzenesulfonate)	In Water	1	2	1	1	1	1	X	X	2	1	-	1	-	-	1	2	1	1	1	1	1	
Developing Solutions (Hypox)	Liquid	1	1	-	-	-	-	2	2	2	2	-	2	-	-	1	-	1	1	-	-	-	
Dextron	Brown Liquid	1	X	-	-	X	1	-	-	-	X	-	-	1	1	2	-	-	-	-	-	-	
Dextrin (Starch gum)	Yellow or White Powder	1	1	-	-	1	1	-	-	1	X	1	-	-	1	1	-	1	1	-	-	1	
Diacetone	Colorless Liquid	1	1	-	-	2	X	X	X	X	2	X	X	1	1	X	1	1	1	-	1	1	
Diacetone Alcohol	Colorless Liquid	1	1	-	-	X	-	2	2	-	2	X	2	1	-	X	1	1	1	1	1	1	
Diammonium Phosphate	In Water	1	1	-	-	1	1	1	1	1	1	-	1	-	-	1	X	2	1	X	-	1	
Diazinon	In Petroleum Solvents	1	-	-	-	1	-	1	1	-	-	1	-	-	-	2	-	-	-	-	-	2	
Dibenzyl Ether	Colorless Liquid	1	1	-	-	2	X	X	X	X	2	X	X	2	-	-	1	1	1	1	1	-	
Dibutyl Ether	Colorless Liquid	1	1	-	-	-	X	X	X	X	2	X	X	1	-	-	1	1	1	1	1	-	
Dibutyl Phthalate	Colorless Oily Liquid	1	1	-	-	1	X	X	X	X	2	2	X	2	-	1	1	1	1	1	1	2	
Dibutylamine	Colorless Liquid	1	-	-	X	X	X	X	X	X	X	X	X	X	-	X	-	-	-	-	-	-	
Dibutylsebacate	Clear Colorless Liquid	1	1	-	-	X	X	X	X	X	2	1	-	2	-	-	-	-	-	-	1	-	
Dichloroacetic Acid	Colorless Liquid	1	-	-	-	-	X	-	2	-	X	X	X	-	-	-	-	-	-	-	-	-	
Dichloroaniline	In Alcohol or Benzene	1	-	-	-	X	X	X	-	X	X	2	-	-	-	-	-	-	-	-	-	-	
Dichlorobenzene (ortho)	Colorless Liquid	1	2	-	X	X	X	X	X	X	X	1	X	X	1	X	-	1	1	-	1	-	
Dichlorobenzene (para)	White Crystals	1	2	-	-	X	X	X	X	X	X	1	X	X	1	X	-	1	1	-	1	-	
Dichlorobenzyl Chloride	Colorless Liquid	1	2	-	X	X	X	X	X	X	X	1	X	X	-	X	-	-	-	-	-	-	
Dichlorodifluoromethane (Freon 12)	Gas, Liquid @ 140 PSIG @ 100°F (38°C)																						

SPECIAL HOSE REQUIRED

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

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		Stallion [®] Mustang [®] Renegade [®] Food & Bev. Mstr.	T K L	S P C	D D A	H V M	J Z G	Iron/Carbon Steel Stainless Steel 304 Stainless Steel 316 Aluminum Brass Polypropylene	S P C	D D A	H V M	J Z G	T K L	S P C	D D A	H V M	J Z G				
Chemical	Form	T K L	S P C	D D A	H V M	J Z G	Iron/Carbon Steel Stainless Steel 304 Stainless Steel 316 Aluminum Brass Polypropylene	S P C	D D A	H V M	J Z G	T K L	S P C	D D A	H V M	J Z G					
SPECIAL HOSE REQUIRED																					
Dichlorodifluoromethane (Freon 12)	Gas, Liquid @ 140 PSIG @ 100°F	1	2	2				X	X	X		X	2	X		X	X	X			
Dichloroethane (Ethylene Dichloride)	Colorless Liquid	1	-	-				X	X	X		X	-	X		X	-	-			
Dichloroethyl Ether	Colorless Liquid	1	2	X				X	X	X		X	1	X		X	-	-			
Dichloroethylene	Colorless Liquid	1	2	X				X	X	X		X	1	X		X	-	-			
Dichloroethylene (Acetylene Dichloride)	Colorless Liquid	1	X	X				X	X	-		X	1	-		X	1	X			
Dichloromethane (Methylene Chloride)	Colorless Liquid	1	1	2				X	X	X		X	2	X		X	X	X			
Dichloropentane	Light Yellow Liquid	1	-	-				X	X	X		X	1	X		-	-	-			
Dichloropropane (Propylene Dichloride)	Colorless Liquid	1	-	-				X	X	X		X	2	X		-	-	-			
Dicyclohexylamine	Colorless Liquid	1	-	-				X	-	X	X	X	X	X		X	-	-			
DIDA (Diisodecyl Adipate)	Light Colored Oily Liquid	1	-	-				-	-	X		X	-	1	X	X	-	-			
Diesel Fuel	Liquid	1	1	1				X	X	1		X	X	2	X	-	X	-			
Diethanolamine (20%)	In Water or Alcohol	1	-	-				1	2	2		2	2	X	1	-	2	1			
Diethanolamine	Liquid above 83°F (29°C)	1	-	-				1	-	-		-	-	-	-	-	-	-			
Diethyl Ether (Ethyl Ether)	Colorless Liquid	1	2	-				1	X	X		X	X	X	2	X	X	1			
Diethyl Ketone	Colorless Liquid	1	-	-				-	2	X		-	X	X	2	X	X	-			
Diethyl Oxalate	Colorless Oily Liquid	1	-	-				-	X	X		-	X	X	X	-	X	-			
Diethyl Phthalate (Ethyl Phthalate)	Water White Liquid	1	1	-				-	-	X		X	X	-	2	-	-	2			
Diethyl Sebacate	-	1	1	-				-	-	X		X	X	X	2	2	X	2			
Diethyl Sulfate	Colorless Liquid	1	-	-				-	1	X		1	X	1	2	X	X	-			
Diethyl Sulfide (Ethyl Sulfide)	Colorless Oily Liquid	1	1	-				-	-	-		-	-	1	-	-	-	-			
Diethylacetaldehyde (Ethylbutyraldehyde)	Colorless Liquid	1	1	-				-	-	-		-	-	-	-	-	-	-			
Diethylamine	Colorless Liquid	-	-	2				-	-	-		-	-	-	-	-	-	-			
Diethylbenzene	Colorless Liquid	1	1	-				-	X	-		X	X	-	X	1	-	2			
Diethylene Dioxide (1,4 Dioxane)	Colorless Liquid	1	1	-				1	2	X		X	X	X	2	X	X	2			
Diethylene Ether (Dioxane)	Colorless Liquid	1	1	-				1	2	X		X	X	X	2	X	X	2			
Diethylene Glycol (Dihydroxydiethyl Ether)	Colorless Syrupy Liquid	1	1	-				1	1	1		1	1	1	1	1	1	1			
Diethylene Glycol Methyl Ether (Methyl Cellosolve)	Colorless Liquid	1	1	-				1	1	-		X	X	-	X	1	X	1			
Diethylene Glycol Monobutyl Ether	Colorless Liquid	1	1	-				1	1	-		-	-	-	-	1	-	-			
Diethylene Glycol Monobutyl Ether Acetate	Colorless Liquid	1	1	-				1	1	-		-	-	-	-	-	-	-			
Diethylene Glycol Monoethyl Ether	Colorless Liquid	1	1	-				1	1	-		-	-	-	-	-	-	-			
Diethylene Glycol Monomethyl Ether	Colorless Liquid	1	1	-				1	1	-		-	-	-	-	1	-	-			
Diethylene Glycol Monomethyl Ether Acetate	Colorless Liquid	1	1	-				1	1	-		-	-	-	-	-	-	-			
Diethylenetriamine	Yellow Liquid	1	1	1				-	1	-		X	-	X	1	X	X	-			
Dihydroxyacetone	In Water	1	1	-				1	1	-		-	-	-	-	-	-	-			
Dihydroxydiethyl ether (Diethylene glycol)	Colorless Syrupy Liquid	1	1	1				1	1	1		1	1	1	1	1	1	1			
Diisobutyl Ketone	Colorless Liquid	1	1	-				1	1	X		X	X	X	2	X	X	2			
Diisobutyl Phenol (Octyl Phenol)	White Flakes	1	-	-				-	-	-		-	1	-	-	-	-	-			
Diisobutyl Phthalate	Liquid	1	1	-				-	-	-		-	-	-	-	-	-	-			
Diisobutylene	Colorless Liquids	1	1	-				X	X	2		X	X	X	X	1	X	1			
Diisodecyl Adipate (DIDA)	Light Colored Oily Liquid	1	-	-				-	-	X		X	-	X	-	1	X	X			
Diisooctyl Phthalate (DIOP)	Nearly Colorless Liquid	1	-	-				-	1	X		X	-	X	1	X	X	-			
Diisopropanolamine	Liquid above 108°F (42°C)	1	-	-				-	-	2		2	-	1	-	-	-	-			
Diisopropyl Ketone	Colorless Liquid	1	1	-				1	1	X		X	X	X	2	X	X	-			
Diisopropylamine	Colorless Liquid	1	1	-				-	-	-		-	-	-	-	-	-	-			
Diisopropylbenzene (meta)	Colorless Liquid	1	2	2				X	X	-		-	-	-	-	1	-	-			
Diisopropylidene Acetone (Phorone)	Yellow Liquid	1	1	-				-	2	X		X	X	X	2	X	X	-			
Dilauryl Ether	Liquid above 92°F (33°C)	1	1	-				1	1	-		-	-	-	-	X	-	-			
Dimethyl Acetamide (DMAC)	Colorless Liquid	1	1	-				-	-	-		-	-	-	-	-	-	-			
Dimethyl Aniline	Yellow/brown Oily Liquid	1	1	-				-	X	X		X	X	X	2	1	X	2			
Dimethyl Ether	Liquid under Pressure	1	1	1				1	1	X		X	X	X	2	X	X	-			
Dimethyl Formamide	Water White Liquid	1	1	-				1	2	-		-	-	-	-	X	-	-			

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the polymer only!		Gates Hose / Polymers															Couplings / Adapters					
Chemical	Form (at room temperature unless otherwise stated)	Stallion®	Mustang®	Renegade®	Food & Bev. Mstr.												Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypropylene
		T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G						
		Teflon®/Neoflon®	Gatlon®	UHMWPE	Sanitron®	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC						
Dimethyl Phthalate	Colorless Oily Liquid	1	1	-	1	2	X	X	X	X	2	1	X	1	-	-	-	-	-	-	1	-
Dimethyl Sulfate (Methyl Sulfate)	Colorless Liquid	1	1	-	-	X	X	X	X	X	2	X	X	-	1	1	-	-	-	-	-	-
Dimethyl Sulfide	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dimethyl Sulfoxide	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dimethyl Terephthalate	Colorless Crystals	-	-	-	-	X	X	-	X	-	X	1	-	-	-	-	-	-	-	-	-	-
Dimethylamine (DMA)	Liquid @ 70 PSIG @ 120°F (49°C)	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylaminoethanol (Dimethylethanolamine)	Colorless Liquid	1	1	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylaminomethyl Phenol (DMP)	Dark Red Liquid	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dimethylbenzene (DMB)	Colorless Liquid	1	X	X	X	X	X	X	X	X	X	1	X	X	X	X	1	1	1	1	2	1
Dimethylcarbinol (isopropyl alcohol)	Colorless Liquid	1	1	1	1	1	1	2	2	2	1	1	2	1	1	2	1	1	1	1	2	1
Dimethylcyclohexylamine	Water White Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-
Dimethylformamide (DMF)	Water white Liquid	1	2	-	-	-	-	-	-	-	-	X	-	-	-	-	1	1	1	-	-	1
Dimethylketone (Acetone)	Colorless Liquid	1	1	X	1	2	X	X	X	X	2	X	X	1	1	X	1	1	1	1	1	2
Dimethylphenol (Xylenol)	White solid, liquid @ 68°F (20°C)	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dinitrobenzene (Soluble in Chloroform)	In Chloroform	1	2	-	X	X	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dinitrogen Tetroxide (Nitrogen Dioxide)	Liquid @ 50 PSIG @ 120°F (49°C)	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dinitrotoluene, Solid	In Alcohol or Ether	1	1	1	1	1	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Diocetyl Adipate di (2-ethylhexyl) adipate	Light Colored Oily Liquid	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Diocetyl Phosphite, di-(2-ethylhexyl) phosphite	Colorless Liquid	1	1	-	1	X	-	-	-	-	-	1	-	-	-	X	1	1	1	1	1	X
Diocetyl Phthalate, di-(2-ethylhexyl) phthalate	Light Colored Liquid	1	1	-	1	X	X	X	X	X	X	1	X	2	-	-	1	1	1	1	1	X
Diocetyl Sebacate, di-(2-ethylhexyl) sebacate	Pale Straw Colored Liquid	1	1	-	1	-	X	X	X	X	2	1	X	X	-	-	-	-	-	-	-	-
Diocetylamine di-(2-ethylhexyl)amine	Water White Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DIOF (Diisooctyl Phthalate)	Nearly Colorless Liquid	1	-	-	1	X	-	X	-	-	1	X	X	-	-	-	1	1	1	1	1	1
Dioxane (Diethylene Dioxide)	Colorless Liquid	1	1	-	1	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	1	1
Dioxane (Diethylene Ether)	Colorless Liquid	1	1	-	1	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	1	1
Dioxolane (Ethylene Glycol Formal)	Water White Liquid	1	-	-	-	-	-	-	-	-	-	X	-	-	-	-	1	1	1	1	1	-
Dipentene (Cinene, Limonene)	Colorless Liquid	1	2	-	X	X	X	X	X	-	-	1	-	-	1	-	1	1	1	1	1	-
Diphenyl Phthalate	Yellow White Powder	1	1	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dipropyl Ketone	Colorless Liquid	1	1	-	1	1	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Dipropylamine	Water White Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dipropylene Glycol	Colorless Liquid	1	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dipropylene Glycol Monomethyl Ether (DPM)	Colorless Liquid	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dirco Oils	Liquid	1	1	-	-	X	1	-	-	-	X	-	-	-	1	-	1	1	1	1	1	-
Disodium Phosphate (DSP soluble in H ₂ O)	Colorless or White Powder	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disodium Phosphate Solution	In Water	1	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Distillate Fuel Oil	Clear to Brown Liquid	1	2	-	X	X	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Divinylbenzene (20-25% or 50-60% Grades)	Water White to Straw Liquid	1	2	-	X	X	X	X	X	-	X	1	-	-	-	-	-	-	-	-	-	-
DMA (Dimethylamine)	Gas	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DMAC (Dimethyl Acetamide)	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DMB (Dimethylbenzene)	Colorless Liquid	1	X	X	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-
DMF (Dimethylformamide)	Water white Liquid	1	2	-	-	-	-	-	-	-	-	X	-	-	-	-	1	1	1	-	-	1
DMP (Dimethylaminomethyl phenol)	Dark Red Liquid	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dodecylbenzene (Detergent Alkylate)	Liquid	1	2	-	X	X	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dodecylphenol	Straw Colored Liquid	1	1	-	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dolomite	Gray, Pink or White Powder	-	-	-	2	1	-	-	1	-	-	1	1	-	-	-	-	-	-	-	-	-
Dowtherm A (Biphenyl and Biphenyl Ether Mix.)	Liquid	1	1	-	1	1	X	X	X	X	X	1	X	2	-	X	1	1	1	1	1	-
Dowtherm SR-1 (Ethylene Glycol)	Liquid	1	1	1	1	1	1	-	-	-	1	1	-	1	-	-	2	1	1	1	1	1
DPM (Dipropylene Glycol Monomethyl Ether)	Colorless Liquid	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duro Oils	Liquid	1	1	-	-	X	1	-	-	-	X	-	-	-	1	2	1	1	1	1	1	-
E																						
EDB (Ethylene Dibromide)	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers																Couplings / Adapters	
																		Iron/Carbon Steel Stainless Steel 304 Stainless Steel 316 Aluminum Brass Polypropylene	
		Stallion [®] Mustang [®] Renegade [™] Food & Bev. Mstr.	T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G		
		Teflon [®] /Neoflon [®] Gatron [™] UHMWPE Sanitron [™] EPDM NBR SBR NR Neoprene Butyl Fluorocarbon Hypalon [®] CPE Nylon PVC	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EDTA (Ethylenediaminetetraacetic Acid)	Colorless Crystals	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Emulsion (Oil in Water)	Water is Continuous Phase	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Enamels	Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Epichlorohydrin (Chloropropylene Oxide)	Volatile Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Epoxy Resin	Solid Pellet	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Essential Oils	Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethanol (Ethyl Alcohol)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethanolamine (Aminoethanol)	Colorless Viscous Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethers	Liquids	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Acetate (Acetic Ether)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Acetoacetate	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Acrylate	Colorless Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Acrylate, Inhibited	Colorless Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Alcohol (Ethanol)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Aluminum Dichloride (Above 90°F/32°C)	Clear Yellow Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Bromide	Colorless Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Butyl Ether (Butyl Ethyl Ether)	Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Butyrate	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Chloride	Compressed Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Chloroformate (Ethyl Chlorocarbonate)	Water White Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Ether (Diethyl Ether)	Colorless Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Ether Acetate (Cellosolve Acetate)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Formate	Water White Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Iodide	Colorless Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Isobutyrate	Colorless Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Mercaptan (Ethanethiol)	Colorless Pungent Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Methyl Ketone (MEK)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Oleate	Light Yellowish Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Oxalate	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Pentachlorobenzene	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Phthalate (Diethyl phthalate)	Water White Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Propionate	Water White Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethyl Propyl Ketone (3-Hexanone)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Silicate	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethyl Sulfide (Diethyl Sulfide)	Colorless Oily Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylamine	Colorless Liquid or Gas	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethylbenzene	Colorless Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethylbutanol (2-Ethylbutyl Alcohol)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylbutyl Alcohol (Ethylbutanol)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylbutyl Amine	Water White Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylbutyl Ketone	Clear Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylbutylaldehyde (Diethylacetaldehyde)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylcellulose	Granular Solid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylene Chlorohydrin	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylene Cyanohydrin	Straw Colored Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylene Dibromide (EDB)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylene Dichloride (Chloroethane)	Colorless Liquid	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ethylene Glycol	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylene Glycol Formal (Dioxolane)	Water White Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylene Glycol Monoethylether	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ethylene Glycol Monoethylether Acetate	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLA QUÍMICA PARA MANGUERAS GATES

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Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the <i>polymer only!</i>	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers															Couplings / Adapters					
		Stallion [®] Mustang [®] Renegade [™] Food & Bev. Mstr.																Iron/Carbon Steel Stainless Steel 304 Stainless Steel 316 Aluminum Brass Polypropylene				
			T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G					
			Teflon [®] Gatron [™] UHMWPE [®] Sanitron [™] EPDM [®] NBR [®] SBR [®] NR [®] Neoprene [®] Butyl [®] Fluorocarbon [®] Hypalon [®] CPE [®] Nylon [®] PVC [®]																			
Chemical																						
Ethylene Glycol Monomethyl Ether	Colorless Liquid	1	1	-	1	2	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylene Glycol N-Butyl Ether	Colorless Liquid	1	1	-	1	1	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethylenediamine	Colorless Liquid	1	2	-	-	2	1	-	-	-	-	2	X	-	-	-	-	-	1	1	-	1
Ethylenediaminetetraacetic acid (EDTA)	Colorless Crystals	1	1	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	
Ethylhexaldehyde	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethylhexanediol	Colorless Liquid	1	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethylhexanol (2-ethylhexyl alcohol)	Colorless Liquid	1	1	1	1	1	1	1	1	1	-	1	1	-	1	1	1	-	-	-	-	
Ethylhexoic Acid	Liquid	1	1	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethylhexyl Acetate	Water White Liquid	1	1	-	-	1	X	-	-	X	-	X	X	-	1	-	-	-	-	-	-	
Ethylhexyl Acrylate	Liquid	1	2	-	2	-	X	-	-	-	-	X	-	-	-	X	-	-	-	-	-	
Ethylhexyl Alcohol (Ethylhexanol)	Colorless Liquid	1	1	1	1	1	1	1	1	1	-	1	1	-	1	1	1	-	-	-	-	
F																						
	Fatty Acid	Solid, Semisolid or Liquid	1	2	2	2	2	2	X	X	2	2	2	X	2	-	2	2	1	1	1	1
	Fatty Alcohol, Blend	C8-11 Liquids, >C11 Solids	1	1	1	1	1	1	1	1	1	1	1	-	1	1	1	-	-	-	-	
	Fatty Petroleum Alcohol	C11 or Less are Liquids	1	1	1	1	1	1	-	-	-	1	1	-	1	1	-	-	-	-	-	
	Ferric Bromide	Red Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
	Ferric Chloride	Black-Brown Solid	1	1	-	-	-	2	-	1	2	1	1	2	1	1	1	X	X	X	X	1
	Ferric Chloride solution	Liquid	1	1	-	-	-	2	-	1	2	1	1	2	1	1	1	X	X	X	X	1
	Ferric Nitrate	Violet Crystals	1	1	-	-	-	-	2	1	2	2	-	2	1	-	-	X	1	1	-	-
	Ferric Nitrate Solution	Liquid	1	-	-	-	1	1	-	1	1	1	1	1	-	1	-	X	1	1	-	1
	Ferric Sulfate	Yellow Crystals or Gray Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	X	1	1	X	1
	Ferric Sulfate Solution	Liquid	1	1	1	-	2	2	2	-	2	2	1	2	1	-	1	X	1	1	X	1
	Ferrous Acetate Solution	Liquid in H2O or Alcohol	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	Ferrous Chloride	Greenish-White Crystals	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	X	1	2	-	2
	Ferrous Chloride, Solution	Liquid	1	1	-	-	-	-	-	-	-	-	1	1	2	1	-	1	X	1	2	-
	Ferrous Nitrate	-	1	1	-	-	2	2	-	-	2	2	-	2	-	-	2	-	1	1	-	1
Ferrous Sulfate Solution	Liquid	1	1	1	-	2	2	2	-	2	2	1	2	1	-	1	X	1	1	X	1	
Fertilizer (Liquid Manure)	Liquid	1	1	1	1	1	1	1	1	1	1	1	1	-	1	2	1	1	1	1	1	
Finishing Oil	Liquid	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fire-Resistant Hydra-Fluid (Texaco)	Liquid	1	1	-	-	X	1	-	-	-	-	X	-	-	-	-	1	1	1	1	1	
Firtec 290, MF	Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fish Oil	Liquid	1	-	1	X	X	1	-	-	2	-	1	-	-	-	-	-	-	-	-	-	
Fixing Solution (Photo)	Liquid	1	1	-	-	-	-	2	2	2	2	-	2	-	2	-	1	1	-	1	1	
Flint	Gray, Brownish, Black	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
Floor Wax (Temperature Dependent)	Varies	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fluoboric Acid (48% Purity)	Colorless Liquid	1	1	1	1	2	-	2	2	2	-	-	2	1	-	X	-	1	1	-	1	
Fluoboric Acid (up to 48%)	Colorless Liquid	1	1	-	-	1	-	2	2	2	-	-	1	2	1	-	X	-	1	1	-	
Fluorine	Pale Yellow Gas	X	-	X	-	X	-	-	-	-	-	-	1	-	-	X	1	-	-	-	-	
Fluorine (Liquid)	Yellow Liquid	NO HOSE AVAILABLE															-	-	-	-	-	
Fluosilicic Acid (50%)	Colorless Liquid	1	1	1	1	2	X	-	-	2	X	-	2	1	X	X	-	-	-	1	-	
Formaldehyde	Gas	-	1	-	-	1	-	-	-	-	-	-	1	-	-	1	-	X	2	1	-	
Formaldehyde Solution (up to 50%)	Liquid	1	2	1	1	1	2	X	X	2	2	1	2	1	1	1	X	2	1	2	1	
Formalin (37-50% HCHO with 15% MeOH)	Liquid	1	1	-	1	1	2	X	X	2	2	1	2	1	1	1	-	-	-	-	-	
Formamide	Colorless Oily Liquid	1	1	-	-	-	-	X	X	-	-	-	-	-	X	-	-	-	-	-	-	
Formic Acid	Colorless Liquid (bp 100°C)	1	1	1	1	2	-	X	X	1	2	X	2	1	X	X	X	2	1	-	2	
FR Fluid D	Liquid	1	1	-	-	X	1	-	-	-	X	-	-	-	-	-	-	-	-	-	-	
FR Hydraulic Fluid	Brown Liquid	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Freon 12 (Dichlorodifluoromethane)	Gas or Liquid	SPECIAL HOSE REQUIRED															-	-	-	-	-	
Freon 13	Gas or Liquid	SPECIAL HOSE REQUIRED															-	-	-	-	-	



TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers															Couplings / Adapters					
		Stallion [®]	Mustang [®]	Renegade [®]	Food & Bev. Mstr.																	
		T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G						
		Teflon [®] /Neolon [®]	Gatron [™]	UHMWPE	Sanitron [™]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum		
																	Brass	Polypropylene				
Freon 134a (HFC 134a)	Gas or Liquid	SPECIAL HOSE REQUIRED															-	-	-	-	-	-
Freon 22 (Chlorodifluoromethane)	Gas or Liquid	SPECIAL HOSE REQUIRED															-	-	-	-	-	-
Freon 23	Clear Liquid	SPECIAL HOSE REQUIRED															-	-	-	-	-	-
Fruit Juices	Liquid	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-			
Fuel Oil (ASTM 1-6)	Water White to Brown Liquids	1	2	1	X	X	1	X	X	2	X	1	X	1	1	X	2	2	2	1	1	-
Fumaric Acid	Colorless Crystals	1	1	1	1	2	-	2	2	-	-	1	-	-	-	X	-	1	1	-	-	
Fumaric Acid Solution (Allomalaic Acid)	Liquid	1	1	-	-	2	1	2	2	-	-	1	-	-	-	X	-	1	1	-	-	
Furan (Furfuran)	Colorless to Brown Liquid	1	1	1	-	X	X	X	X	X	X	-	-	1	-	X	1	1	1	1	1	-
Furfural (Ant Oil)	Colorless to Reddish Brown Liquid	1	1	-	2	X	X	X	X	2	X	2	2	1	-	X	2	1	1	1	1	2
Furfural Alcohol	Colorless to Brown Liquid	1	1	2	2	X	X	X	X	2	X	1	2	1	1	X	2	1	1	1	1	2
Furfuran (Furan)	Colorless to Brown Liquid	1	1	1	-	X	X	X	X	X	X	-	-	1	-	X	1	1	1	1	1	-
Furfuryl Alcohol	Colorless to Reddish Brown Liquid	1	1	-	2	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-
Fusel Oil (Amyl Alcohol, Grain Oil)	Colorless Liquid	1	1	1	1	2	2	2	2	2	2	1	2	1	1	1	1	1	1	1	1	-
Fyrguard 150, 200	-	1	1	-	-	1	1	-	-	-	1	-	-	-	-	-	1	1	1	1	1	-
Fyrquel 15R&O, 220R&O, 550R&O	-	1	1	-	-	1	X	-	-	-	1	-	-	-	-	-	1	-	-	1	-	-
Fyrquel 90, 150, 220, 300, 550, 1000	-	1	1	-	-	1	X	-	-	-	1	-	-	-	-	-	1	-	-	1	-	-
G																						
Gallic Acid (3,4,5 Trihydroxybenzoic Acid)	In Alcohol or Glycerol	1	1	1	1	1	X	2	2	X	2	1	-	1	X	X	X	1	1	1	-	1
Gallic Acid Solution	In Alcohol Solution	1	1	-	1	-	X	2	2	X	2	1	-	1	X	X	X	1	1	1	-	1
Gasohol (Gasoline blended with Ethanol) [†]	Colorless Liquid	1	2	1	X	X	2	X	X	2	X	1	X	-	1	X	2	1	1	1	1	X
Gasoline (Oxygenated - Blended With MTBE) [†]	Colorless Liquid	1	2	1	X	X	2	X	X	2	X	1	X	-	1	X	2	1	1	1	1	X
Gasoline (Unleaded Up to 50% Aromatics) [†]	Colorless Liquid	1	2	1	X	X	2	X	X	2	X	1	X	1	1	X	2	1	1	1	1	-
Gasoline (White) [†]	Colorless Liquid	1	2	-	X	X	2	X	X	2	X	1	X	-	1	X	2	1	1	1	1	-
Gelatin	Flakes or Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	1	1	-	-	-	-	-	-
Glacial Acetic Acid	Clear Colorless Liquid	1	1	1	X	2	-	-	X	X	X	-	X	X	X	X	-	-	-	-	-	-
Glacial Methacrylic Acid (GMAA)	White Crystals	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Glauber's Salt (Sodium Sulfate Decahydrate)	Crystals or Powder	1	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	
Gluconic Acid (Commercial 50% Aqueous)	Aqueous Solution	1	-	-	-	-	X	-	X	-	X	-	2	-	-	-	-	-	-	-	-	-
Glucose	Crystals to White Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	1	1	-
Glucose Solution	Liquid	1	1	-	1	1	1	1	1	1	1	1	1	-	1	1	1	1	1	1	1	-
Glue	Varies	1	1	-	-	X	2	X	X	2	X	1	1	-	2	1	2	1	1	1	X	-
Glycerine (Glycerol)	Clear Viscous Liquid	1	1	-	1	1	1	1	1	1	1	1	1	1	-	1	2	1	1	1	1	-
Glycerol (Glycerine)	Clear Viscous Liquid	1	1	-	1	1	1	1	1	1	1	1	1	1	-	1	2	1	1	1	1	-
Glycerol Monolaurate	Liquid above 80°F (27°C)	1	1	1	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-
Glycol FR Fluids	Liquid	1	-	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Glycol Slurry	Watery suspension	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glycols (ie Ethylene Glycol)	Clear Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	1	1	1	1	1	-
GMAA (Glacial Methacrylic Acid)	White Crystals	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Graphite	Powdered, Flake, Crystals	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Grease	Semi-Solid	1	1	2	2	X	1	X	X	2	X	1	2	-	-	1	1	1	1	1	1	-
Grease, Silicone Base	-	1	-	1	-	-	-	-	-	-	-	-	-	-	1	-	1	1	1	1	1	-
Green Liquor (Effluent Alkaline Pulping)	Liquid	1	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Green Sulfate Liquor	Liquid	1	1	1	-	1	2	1	1	1	1	-	1	2	-	-	1	1	1	1	1	-
H																						
Halowax (Chlorinated Hydrocarbons)	Oils to Waxy Solid	1	1	1	-	X	X	X	X	X	X	1	X	-	-	-	-	-	-	-	-	-
HEA (2-Hydroxyethyl Acrylate)	Liquid	1	1	1	1	X	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
HEA Acid (2-Hydroxyethyl Acrylate)	Liquid	1	1	1	1	X	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Hematite (Iron Ore)	Black to Brick Red	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-

[†] Petroleum hose only.

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303)744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the <i>polymer only!</i>	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers																	Couplings / Adapters						
		Stallion [®]	Mustang [®]	Renegade [®]	Food & Bev. Mstr.													Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum Brass	Polypropylene			
						T	K	L	S	P	C	D	D	A	H	V	M						J	Z	G
						Teflon [®]	Neoflon [®]	Gafron [™]	UHMWPE	Sanitron [™]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon						Hypalon [®]	CPE	Nylon
Chemical																									
HEP (2-Hydroxypropyl Acrylate)	Liquid	1	1	1	1	X	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-		
Heptachlor (In Xylene)	Liquid	1	2	-	-	X	X	2	X	X	X	X	1	-	-	1	X	-	-	-	-	-	-		
Heptanal (Heptaldehyde)	Colorless Oily Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Heptane	Colorless Liquid	1	2	1	X	X	1	X	X	2	X	1	X	1	1	2	-	-	-	-	-	-			
Heptanedicarboxylic Acid (Azelaic Acid)	Yellowish to White Powder	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-			
Heptanoic Acid	Clear Oily Liquid	1	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-			
Heptanol	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-			
Hexachlorocyclohexane	White to Yellowish Flakes	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-			
Hexachlorocyclopentadiene	Yellow Liquid	1	-	-	X	X	-	X	X	-	X	1	-	-	-	-	-	-	-	-	-	-			
Hexadecanoic Acid (Palmitic Acid)	White Crystals	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-			
Hexahydrophthalic Anhydride	Clear Colorless Viscous Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Hexaldehyde	Colorless Liquid	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-			
Hexamethylenediamine, Solution	Colorless Flat Solid Leaflets	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-			
Hexamethyleneimine	Clear Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Hexane	Colorless Liquid	1	X	1	X	X	1	X	X	-	X	1	-	1	1	X	-	1	1	1	-	1			
Hexanol (Hexyl Alcohol)	Colorless Liquid	1	1	-	-	X	1	-	-	2	-	-	1	X	1	-	-	1	1	1	1	2			
Hexanone (Ethyl Propyl Ketone)	Colorless Liquid	1	-	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	-	-			
Hexene	Colorless Liquid	1	-	-	X	X	2	X	X	-	X	1	-	1	-	-	-	1	1	1	-	1			
Hexyl "Cellosolve" (EG monoethyl ether)	Water White Liquid	1	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-			
Hexyl Alcohol (Hexanol)	Colorless Liquid	1	1	-	-	X	1	-	-	2	-	1	X	1	-	-	1	1	1	1	2	-			
Hexyl Methacrylate	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Hexylamine	Water White Liquid	1	-	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	-	-			
Hexylene (1-Hexene)	Colorless Liquid	1	-	-	X	X	2	X	X	-	X	1	-	1	-	-	-	1	1	1	-	1			
Hexylene Glycol	Colorless Liquid	1	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-			
Honey	Yellow Liquid	1	-	-	-	1	1	-	1	1	-	1	-	-	-	1	-	-	-	-	-	-			
Houghto-Safe 1055, 1110, 1115, 1120, 1130	Liquid	1	1	-	-	1	X	-	-	-	-	1	-	-	-	-	-	1	1	1	1	1			
Houghto-Safe 271, 416, 520 & 616, 620	Liquid	1	1	-	-	1	1	-	-	-	-	1	-	-	-	-	-	1	1	1	1	1			
Houghto-Safe 5046	Liquid	1	1	-	-	X	1	-	-	-	-	X	-	-	-	-	-	1	1	1	1	1			
Houghto-Safe 625, 640 & 525 (Under 100°F/38°C)	Liquid	1	1	-	-	1	1	-	-	-	-	1	-	-	-	-	-	1	1	1	1	1			
HPA Acid (2-Hydroxypropyl Acrylate)	Liquid	1	1	1	1	X	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-			
HPO (Sodium Thiosulfate)	White Powder	1	1	-	-	-	1	1	1	1	1	1	-	1	1	1	1	X	1	1	2	X			
Hy-Chock Oil	Liquid	1	1	-	-	-	1	-	-	-	-	-	1	-	-	1	-	1	1	1	-	-			
Hydrocyanic Acid (up to 98%)	Water White Liquid	1	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	X	1	1	1	X			
Hydrafluid 760 (Texaco and Houghton)	Liquid	1	1	-	-	X	1	-	-	-	-	X	1	-	-	1	-	1	1	1	1	1			
Hydrafluid AZR&O, A, B, AA, C	Liquid	1	1	-	-	X	1	-	-	-	-	X	1	-	-	1	-	1	1	1	1	-			
Hydrasol A (Textile Dyeing)	-	1	1	-	-	X	1	-	-	-	-	X	1	-	-	1	-	1	1	1	1	-			
Hydraulic Fluid (Phosphate Ester Base)	Liquid	1	1	-	-	1	X	-	-	-	X	1	1	-	-	1	1	1	1	1	-	-			
Hydraulic Fluid (Polyalphaolfin)	Liquid	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1	1	1	1			
Hydraulic Fluid (Std. Petroleum Oils)	Liquid	1	1	-	-	X	1	X	X	2	X	1	2	1	1	1	1	1	1	1	1	-			
Hydraulic Fluid (Water Glycol Base)	Liquid	1	1	-	-	-	1	2	2	1	1	1	-	-	1	1	1	1	1	1	1	1			
Hydraulic Fluid HF-18, HF-20	Liquid	1	1	-	-	1	1	-	-	-	-	1	1	-	-	1	2	1	1	1	1	1			
Hydraulic Fluid HF-31	Liquid	1	1	-	-	X	-	-	-	-	-	X	-	-	-	1	-	1	1	1	1	-			
Hydrazine	Colorless Fuming Liquid	1	1	-	-	2	X	X	X	X	2	X	X	-	-	-	X	-	-	-	-	-			
Hydrazine Hydrate	Colorless Fuming Liquid	1	1	-	-	2	X	X	X	X	2	X	X	-	-	-	X	-	-	-	-	-			
Hydrazine Solution	Liquid	1	1	-	-	2	X	X	X	X	2	X	X	-	-	-	X	-	-	-	-	-			
Hydro-Drive Oil (Houghton)	Liquid	1	-	-	-	X	1	-	-	-	-	X	-	-	-	-	2	-	-	-	-	-			
Hydrobromic Acid (62% and less)	Colorless to Yellow Liquid	1	1	1	1	X	X	2	2	X	2	1	2	1	X	X	X	-	-	-	X	-			
Hydrobromic Acid (to 48%)	Colorless to Yellow Liquid	1	1	1	1	1	X	2	2	X	2	1	2	1	X	X	-	-	-	X	-	-			
Hydrochloric Acid (15%)	Colorless to Yellow Liquid	1	1	1	1	2	X	2	2	X	2	1	2	1	X	X	X	X	X	X	X	X			
Hydrochloric Acid (37%)	Colorless to Yellow Liquid	1	1	1	1	X	X	2	2	X	2	1	2	1	X	X	X	X	X	X	X	X			
Hydrochloric Acid, anhydrous	Colorless Fuming Gas	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	X	X	X	X	X			



TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the <i>polymer only</i> !	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers																Couplings / Adapters																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		Stallion [®] Mustang [®] Renegade [™] Food & Bev. Mstr.																Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum Brass	Polypropylene																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
			Teflon [®] /Neoflon [®]	Gatlon [™]	UHMWPE	Sanitron [™]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon	PVC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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¹ Petroleum hose only.

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

[illegible]² Aircraft fueling hose only for fueling operations.



TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data <
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TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers															Couplings / Adapters					
		Stallion [®]	Mustang [®]	Renegade [™]	Food & Bev. Mstr.												Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypropylene
		T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G						
		Teflon [®]	Gatlon [™]	UHMWPE	Sanitron [™]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon	PVC						
Magnesite	White to Brown Crystalline Solid Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
Magnesium		-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
Magnesium Acetate	Colorless Crystalline Aggregate	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
Magnesium Acetate Solution	In Water or Alcohol	1	1	1	1	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	
Magnesium Carbonate	White Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	-	-	
Magnesium Carbonate Solution (in Acid)	Liquid Solution	1	1	1	1	-	-	-	-	-	-	1	-	-	-	-	1	1	1	-	-	
Magnesium Chloride	Colorless to White Crystals	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	X	2	1	X	2	
Magnesium Chloride Brine	Solution	1	1	1	1	1	1	-	1	-	-	1	-	-	-	-	-	-	-	-	-	
Magnesium Chloride, Hydrated (in H ₂ O or Alcohol)	Solution	1	1	1	1	1	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	
Magnesium Hydroxide	White Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	X	-	
Magnesium Hydroxide Solution (in Dilute Acid)	Liquid Solution	1	1	1	-	-	-	-	-	-	-	1	-	-	-	-	1	1	1	X	-	
Magnesium Nitrate	White Crystals	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	X	1	
Magnesium Nitrate Solution (in H ₂ O or Alcohol)	Liquid Solution	1	1	1	1	1	1	-	-	-	-	1	-	-	-	-	1	1	1	X	1	
Magnesium Oxide, Dry	White Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
Magnesium Oxide, Slurry	-	1	1	-	-	1	2	-	2	1	-	1	-	-	-	-	-	-	-	-	-	
Magnesium Sulfate Solution	Liquid Solution	1	1	1	1	1	1	1	1	2	1	1	1	1	-	1	2	1	1	-	1	
Malathion (Ag Spray Dilute)	Clear to Amber Liquid	1	1	1	-	2	-	X	X	-	1	1	-	-	1	1	1	1	1	-	1	
Malathion (Ag Spray)	Clear to Amber Liquid	1	1	-	-	2	-	-	-	-	1	-	-	-	1	-	1	1	1	-	1	
Maleic Acid	Liquid	NO HOSE AVAILABLE															2	2	1	-	-	-
Maleic Acid Solution	Solution	1	1	1	1	1	2	2	2	X	-	7	-	-	-	X	2	2	1	-	-	
Maleic Anhydride	Colorless Needles	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Maleic Anhydride (Heated Liquid)	Liquid above 124°F (53°C)	1	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Malic Acid (dl form)	Colorless Crystals	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
Malic Acid Solution (in H ₂ O or Alcohol)	Solution	1	1	1	1	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	
Malt Extract (Maltine)	Light Brown Viscous Liquid	1	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	
Malt, Dry	Yellow to Amber Grain	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
Maltine (Malt Extract)	Light Brown Viscous Liquid	1	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	
Manganese Salts	-	1	1	-	-	-	1	X	X	-	-	1	1	-	-	1	-	-	-	-	-	
Manganese Sulfate (Manganous Sulfate)	Pale Red Solid	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
Manganese Sulfate Solution	Solution in Water	1	1	-	-	-	1	2	2	-	-	1	1	1	1	-	1	-	-	-	-	
Manganese Sulfide (Manganous Sulfide)	Green Crystals	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
Manganese Sulfite (Manganous Sulfite)	Black to Brownish Red Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
MAPP Gas (Methylacetylene Propadiene)	Liquid	USE LPG HOSE ONLY															-	-	-	-	-	-
Maxmul (Penzoil Hydraulic Fluid)	Liquid	1	-	-	-	-	1	-	-	2	-	-	-	-	-	-	1	-	1	-	-	
Mayonnaise	Semi-Liquid	1	1	-	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
MBK (Methyl Butyl Ketone)	Colorless Liquid	1	1	-	-	2	X	X	X	X	2	X	X	2	-	X	1	1	1	1	1	
MEA (Ethanolamine)	Colorless Viscous Liquid	1	1	1	1	2	2	2	2	2	1	X	X	1	-	2	-	-	-	-	-	
MEK Methyl Ethyl Ketone)	Colorless Liquid	1	2	1	1	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	1	
Mercuric Chloride	White Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	X	1	1	X	X	
Mercuric Chloride Solution (in H ₂ O, or Alcohol)	Solution	1	1	-	-	2	2	2	1	1	2	-	1	1	-	2	X	1	1	X	X	
Mercuric Cyanide	Colorless Transparent Prisms	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	X	-	
Mercuric Cyanide Solution (in H ₂ O or Alcohol)	Solution	1	1	-	-	2	2	2	2	1	2	-	1	-	-	-	-	-	-	X	-	
Mercurous Nitrate Solution	Solution	1	1	1	-	2	-	-	-	-	-	1	-	-	-	-	1	1	1	X	-	
Mercury	Silver Liquid	1	1	1	-	-	2	2	2	1	2	-	1	1	-	1	1	1	1	X	X	
Mercury Vapor	Gas	NO HOSE AVAILABLE															1	1	1	-	-	-
Mesityl Oxide (Methyl Isobutenyl Ketone)	Colorless Oily Liquid	1	1	1	-	2	X	X	X	X	2	X	X	2	-	X	1	1	1	1	1	
Mesitylene (Trimethylbenzene)	Liquid	1	-	-	X	X	X	X	X	X	X	1	-	-	1	X	-	-	-	-	-	
Metallic Soaps (Aluminium, Calcium, Zinc)	Solids @ Room Temperature	1	1	1	-	X	1	X	X	-	X	1	2	1	-	-	1	1	1	1	1	
Methallyl Alcohol (Methylallyl Alcohol)	Colorless Liquid	1	-	-	-	-	1	-	2	-	2	2	2	-	-	-	-	-	-	-	-	
Methane	Gas	1	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	
Methanol (Methyl Alcohol)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	X	1	1	1	2	1	1	1	1	2	

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers																Couplings / Adapters	
																		Iron/Carbon Steel	Stainless Steel 304
		Stallion [®]	Mustang [®]	Renegade [®]	Food & Bev. Mstr.														
		T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G		Stainless Steel 316	Aluminum
		Teflon [®]	Neoflon [®]	Gatron [®]	UHMWPE	Sanitron [®]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon	PVC	Brass	Polypropylene
Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the polymer only!																			
Methionine	White Crystalline Powder	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1
Methoxychlor Solution (in Alcohol)	Solution	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1
Methylamine (Monomethylamine)	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	X	1	1
Methyl Acetate	Colorless Liquid	1	2	-	-	2	X	X	X	X	2	X	X	1	1	X	-	1	1
Methyl Acetoacetate	Colorless Liquid	1	-	-	-	2	X	-	X	X	2	X	X	-	-	-	-	-	-
Methyl Acetone	Water White Liquid	1	-	-	-	1	X	-	X	-	2	X	X	-	-	1	-	-	-
Methyl Acrylate (Inhibited)	Colorless Liquid	1	2	-	2	2	X	X	X	X	X	X	X	-	-	-	-	1	1
Methyl Acrylate Acid (Methylacrylic Acid)	White Solid	1	1	1	1	2	2	X	X	-	1	1	-	1	X	-	-	1	1
Methyl Alcohol (100%) (Methanol)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	X	1	1	1	2	-	1	2
Methyl Bromide	Liquid @ 55 PSIG @ 120°F (49°C)	1	1	-	-	X	X	X	X	X	X	1	X	-	1	X	-	1	-
Methyl Bromoacetate	Colorless to Straw Colored Liquid	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Butanethiol (Butyl Mercaptan)	Liquid	1	1	-	X	X	-	X	X	-	X	1	-	-	-	X	-	1	1
Methyl Butanol (2-Methyl-1-Butanol)	Colorless Liquid	1	1	1	1	1	1	-	-	-	1	1	-	1	1	1	-	-	-
Methyl Butyl Ketone (MBK)	Colorless Liquid	1	1	-	2	X	X	X	X	2	X	X	2	-	X	-	-	1	1
Methyl Carbitol (Diethylene Glycol Methyl Ether)	Colorless Liquid	1	1	-	1	1	-	X	X	-	X	1	X	1	-	-	-	-	-
Methyl Cellosolve (Diethylene Glycol Methyl Ether)	Colorless Liquid	1	1	-	1	1	-	X	X	-	X	1	X	1	-	-	-	-	-
Methyl Chloride	Liquid @ 160 PSIG @ 120°F (49°C)	1	2	-	X	X	X	X	X	X	X	1	X	X	-	X	-	1	1
Methyl Chloroform (1,1,1 Trichloroethane)	Colorless Liquid	1	2	-	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-
Methyl Chloroformate	Colorless Liquid	1	-	-	-	X	X	X	X	X	X	1	X	-	-	-	-	-	-
Methyl Cyanide (Acetonitrile)	Colorless Liquid	1	1	2	1	2	X	2	2	X	X	X	X	1	-	1	-	1	1
Methyl Cyclohexane	Colorless Liquid	1	-	-	X	X	1	X	X	-	X	1	X	2	1	-	-	-	-
Methyl Ethyl Ketone (MEK)	Colorless Liquid	1	2	1	1	2	X	X	X	X	2	X	X	2	1	X	-	1	1
Methyl Formate	Colorless Liquid	1	1	-	-	2	X	X	X	2	X	X	-	-	-	-	-	1	1
Methyl Hexanol	-	1	-	-	-	1	-	1	-	1	2	1	-	-	-	-	-	-	-
Methyl Hexanone (Methyl Isoamyl Ketone)	Colorless Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-
Methyl Hexyl Ketone	Colorless Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-
Methyl Isoamyl Ketone (Methyl Hexanone)	Colorless Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-
Methyl Isobutyl Ketone (Mesityl Oxide)	Colorless Oily Liquid	1	1	1	-	2	X	X	X	X	2	X	X	2	-	X	-	1	1
Methyl Isobutyl Ketone (MIBK)	Colorless Liquid	1	2	-	-	X	X	X	X	2	X	X	2	1	X	-	-	-	-
Methyl Isopropyl Ketone	Colorless Liquid	1	2	-	-	2	X	X	X	X	2	X	X	2	1	X	-	1	1
Methyl Methacrylate	Colorless Liquid	1	2	-	2	2	X	X	X	X	X	X	2	2	-	1	-	1	1
Methyl Methacrylate Monomer, Inhibited	Colorless Liquid	1	-	-	-	X	X	X	X	X	X	X	-	X	X	-	-	-	-
Methyl Phenol (Cresol)	Liquid above 95°F (35°C)	1	2	-	-	X	X	X	X	2	1	X	1	X	-	-	-	2	1
Methyl Propyl Carbinol (2 Pentanol)	Colorless Liquid	1	1	1	1	1	-	-	-	-	1	1	-	1	-	-	-	-	2
Methyl Propyl Ether	Colorless Liquid	1	-	-	-	X	-	X	-	X	-	2	-	-	-	-	-	-	-
Methyl Propyl Ketone (Pentanone)	Water White Liquid	1	-	-	-	2	X	-	X	X	2	X	X	-	-	X	-	-	-
Methyl Salicylate	Yellow to Red Liquid	1	1	-	-	2	2	-	-	2	2	-	-	-	-	1	-	1	1
Methyl Stearate	Liquid above 99°F (38°C)	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Sulfate (Dimethyl Sulfate)	Colorless Liquid	1	1	-	-	X	X	X	X	X	2	X	X	-	1	1	-	-	-
Methyl-2-Pyrrolidone	Colorless Liquid	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl-n-Amyl Carbinol	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Methyl-n-Amylketone	Water White Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylacetylene Propadiene (MAPP Gas)	Liquid @ 107 PSIG @ 68°F (20°C)	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Methylacrylic Acid (Crotonic Acid)	White Crystalline Solid	1	1	1	1	2	2	X	X	-	1	1	-	1	X	-	-	-	-
Methylal	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Methylallyl Alcohol (Methallyl Alcohol)	Colorless Liquid	1	-	-	-	-	1	-	2	-	2	2	2	-	-	-	-	-	-
Methylallyl Chloride	Colorless to Straw Colored Liquid	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Methylamine (30-40% in H ₂ O)	Colorless Liquid	1	1	-	-	2	X	-	-	-	-	-	-	-	-	X	-	-	-
Methylamine (Anhydrous)	Liquid @ 107 PSIG @ 120°F (49°C)	1	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-
Methylamyl Acetate	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylamyl Alcohol	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data <

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters				
		Stallion [®]	Mustang [®]	Renegade [®]	Food & Bev. Mstr.															
		T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G				
		Teflon [®] /Neoflon [®]	Gatlon [®]	UHMWPE	Sanitron [®]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum
Nickel Plating Solution	Liquid	1	1	-	-	-	2	2	2	-	-	-	2	-	-	X	-	1	1	-
Nickel Salts	-	1	1	-	-	1	1	1	1	1	1	1	1	-	1	2	-	-	-	-
Nickel Sulfate	Yellow Green to Blue Crystals	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Nickel Sulfate Solution	Solution	1	1	-	-	2	2	2	2	2	2	1	2	1	-	1	-	2	1	X
Nicotine Salts (ie Nicotine Hydrochloride)	Colorless Oil	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	X	2	-
Niter Cake (Sodium Bisulfate)	Colorless Crystals to White Lumps	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	X	1	1	X
Niter Cake Solution	Solution	1	1	1	1	2	-	X	X	-	2	1	1	1	-	-	-	-	-	-
Nitric Acid (25% or less)	Colorless Liquid	1	1	1	2	2	X	X	X	X	2	1	2	1	X	X	X	2	2	-
Nitric Acid (10%)	Transparent or Yellowish Liquid	1	1	1	1	1	X	X	X	X	2	1	2	1	X	X	X	2	2	-
Nitric Acid (25%)	Transparent or Yellowish Liquid	1	1	1	2	2	X	X	X	X	2	1	2	1	X	X	X	2	2	-
Nitric Acid (35% or less, 26 Degrees Baume)	Colorless Liquid	1	1	1	2	2	X	X	X	X	2	1	1	X	X	X	X	2	2	-
Nitric Acid (52% or less, 36 Degrees Baume)	Colorless to Yellow Liquid	1	2	X	2	X	X	X	X	X	X	1	2	X	X	X	X	2	2	-
Nitric Acid (61% or less, 40 Degrees Baume)	Colorless to Yellow Liquid	1	2	X	2	X	X	X	X	X	X	1	2	X	X	X	X	2	2	-
Nitric Acid (63.5% or less)	Transparent or Yellowish Liquid	1	X	X	X	X	X	X	X	X	X	1	X	X	X	X	X	2	2	-
Nitric Acid (67% or less, 42 Degrees Baume)	Colorless to Yellow Liquid	1	X	X	X	X	X	X	X	X	X	1	X	X	X	X	X	2	2	-
Nitric Acid (95% or less, 48.5 Degrees Baume)	Yellow Liquid	1	X	X	X	X	X	X	X	X	X	1	X	X	X	X	X	2	2	-
Nitric Acid (Red Fuming)	Red Liquid	1	X	X	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-
Nitrobenzene	Yellow Liquid @ 43°F (6°C)	1	2	-	1	2	X	X	X	X	X	2	X	X	2	X	1	1	1	1
Nitroethane	Colorless Liquid	1	1	-	-	2	X	2	2	X	2	-	2	1	-	-	-	1	1	-
Nitrogen (Cryogenic Liquid)	Liquid	NO HOSE AVAILABLE															1	1	1	1
Nitrogen (Gas)	Colorless Gas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
Nitrogen Dioxide (Nitrogen Tetroxide)	Liquid @ 50 PSIG @ 120°F (49°C)	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Nitrogen Fertilizer (Ammonia, Urea)	Solutions in Water	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen Oxide (Nitrous Oxide)	Gas	1	1	-	1	2	X	X	X	X	1	1	1	1	X	X	1	1	1	-
Nitrogen Tetroxide (Nitrogen Dioxide)	Liquid @ 50 PSIG @ 120°F (49°C)	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Nitromethane	Colorless Liquid	1	-	-	2	X	-	2	X	2	X	X	-	-	1	X	-	1	1	-
Nitropropane	Colorless Liquid	1	1	-	-	2	X	X	X	X	2	X	-	-	1	-	-	1	1	-
Nitrosyl Chloride	Yellow-Red Liquid or Gas	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-
Nitrous Acid (Up to 10%)	Light Blue Liquid	1	1	1	-	-	-	-	1	-	-	-	1	-	1	1	X	1	1	X
Nitrous Oxide (Nitrogen Oxide)	Gas	1	1	-	1	2	X	X	X	X	1	1	1	1	X	X	1	1	1	X
Nitrous Oxide, Compressed Liquid	Liquid @ 800 PSIG @ 68°F (20°C)	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nonene (1-nonylene)	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Nonyl Alcohol (Octyl Carbinol)	Colorless Liquid	1	1	1	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-
Nonylene (Nonene)	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
O																				
Octadecanoic Acid (Stearic Acid)	Colorless Waxy Solid	1	1	1	1	2	2	2	2	2	2	1	2	1	1	1	X	2	1	X
Octanoic Acid (Caprylic Acid)	Colorless Oily Liquid	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Octanol (Octyl Alcohol)	Colorless Liquid	1	1	-	-	-	2	2	2	2	-	1	-	1	1	2	1	1	1	1
Octene	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Octyl Acetate	Colorless Liquid	1	-	-	-	X	-	X	-	X	X	1	-	-	-	-	-	-	-	-
Octyl Alcohol (Octanol)	Colorless Liquid	1	1	-	-	-	2	2	2	2	-	1	-	1	1	2	1	1	1	1
Octyl Aldehyde	Colorless Liquid	1	-	-	-	X	-	X	-	X	X	X	-	-	-	-	-	-	-	-
Octyl Carbinol (Nonyl Alcohol)	Colorless Liquid	1	1	1	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-
Octyl Phenol (Diisobutyl Phenol)	White Flakes	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Octylamine	Water White Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	-
Oil (SAE Motor Oils)	Liquid	1	1	-	X	X	1	X	X	2	X	1	2	1	1	2	-	-	-	-
Oil of Turpentine	Liquid	1	2	2	-	X	1	X	X	2	X	1	X	-	1	1	-	-	-	-
Oils, Animal (High Fatty Acid Content)	Solid to Liquids	1	2	-	2	X	1	X	X	2	2	1	X	1	-	2	1	1	1	1
Oils, Mineral (Aliphatic or Aromatic)	Liquids	1	2	-	X	X	2	X	X	X	X	1	2	2	1	X	-	-	-	2
Oils, Vegetable (Soybean, Coconut, Corn)	Liquids	1	1	-	X	X	1	X	X	-	X	1	X	-	1	-	-	-	-	1

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data <	
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TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers															Couplings / Adapters					
		Stallion [®] Mustang [®] Renegade [™]			Food & Bev. Mstr.												Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypropylene
		T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G						
		Teflon [®]	Neoflon [®]	Gatron [™]	UHMWPE	Sanitron [™]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon						
Phenyl Chloride (Chlorobenzene)	Clear Volatile Liquid	1	2	-	X	X	X	X	X	X	X	1	X	X	X	X	1	1	1	1	1	X
Phenylenediamine (ortho)	Colorless to Red Solid Needles	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phorone (Diisopropylidene Acetone)	Yellow Liquid	1	1	-	-	2	X	X	X	X	2	X	X	-	-	-	1	1	1	-	1	-
Phosgene (Carbonyl Chloride)	Gas, Liquid 60 PSI @ 120°F (49°C)	1	X	X	X	X	X	X	X	X	2	1	X	-	2	-	-	-	-	-	-	-
Phosphate Ester Hydraulic Fluid	Liquid	1	1	1	-	1	X	X	X	X	-	-	X	-	2	-	-	-	-	-	-	-
Phosphate Rock	Solid	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphate, Trisodium	In Water	1	1	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Phosphoric Acid (100%)	Crystals	1	2	X	2	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Phosphoric Acid (35% or less)	Colorless Liquid	1	1	1	1	1	2	2	2	2	2	1	1	1	-	-	X	1	1	X	2	1
Phosphoric Acid (50%)	Colorless Liquid	1	1	1	1	1	2	2	2	2	2	1	1	1	X	X	X	1	1	X	2	1
Phosphoric Acid (75%)	Colorless Liquid	1	2	1	2	2	-	-	-	-	-	1	1	1	X	X	X	2	2	X	X	1
Phosphoric Acid (85%)	Syrupy Liquid	1	2	1	2	2	X	X	X	X	X	1	1	1	X	X	X	2	2	X	X	1
Phosphoric Acid (90%)	Syrupy Liquid	1	2	1	2	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Phosphoric Acid, Spent	Liquid	1	1	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Photographic, Developers	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Photographic, Emulsions	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Photographic, Fixing Solutions	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Phthalic Acid	Colorless Crystals	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalic Acid (50%)	Colorless Liquid	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalic Anhydride, Molten	White Crystalline Solid	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Picric Acid (Solution)	In Water	1	2	2	2	2	-	-	-	-	-	1	-	-	-	-	X	1	1	X	X	1
Picric Acid (Trinitrophenol)	Yellow Crystals	1	2	2	2	2	2	2	2	2	2	1	2	-	X	1	X	1	1	X	X	1
Pine Oil	Colorless to Amber Liquid	1	1	-	-	X	2	X	X	-	X	2	X	2	-	-	-	-	-	-	-	-
Pine Tar	Viscous Brown to Black Liquid	1	2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Pinene	Colorless Transparent Liquid	1	1	-	X	X	2	X	X	X	X	1	-	2	1	X	1	1	1	-	-	-
Piperazine Hydrochloride Solution (34%)	In Water	1	1	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pitch	In Aromatic Hydrocarbons	1	2	X	X	X	2	X	X	X	X	1	X	-	1	X	-	-	-	-	-	-
Plating Solution Chrome (Under 120°F/49°C)	Liquid	1	1	-	-	2	-	-	-	-	2	2	-	-	X	X	-	X	X	-	-	1
Pluronic (Block Polymer with Hydroxyl by BASF)	Liquid	1	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Polyester Plastic	-	1	1	-	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	-	-	-
Polyethylene Glycol	Colorless Liquid to glassy Solid	1	-	-	-	1	2	-	1	1	1	1	1	-	2	2	-	-	-	-	-	-
Polyethylene Plastic	Solid Beads	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Polypropylene Glycol	Liquid	1	1	-	1	1	1	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-
Polypropylene Plastic	Solid Beads	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Polystyrene Plastic	Solid Beads	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Polyurethane Foam (Under 125°F/52°C)	-	1	1	-	-	2	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-
Polyvinyl Acetate - Emulsions	Emulsion	1	-	-	1	1	1	-	1	2	1	-	1	-	-	-	-	-	-	-	-	-
Potash (Potassium Carbonate) Aqueous Solution	Liquid	1	1	-	1	1	-	1	1	1	1	1	1	-	1	1	2	1	1	-	X	1
Potassium Acetate	White Powder	1	1	-	-	2	2	2	2	2	2	X	2	1	-	1	-	1	1	-	-	1
Potassium Bicarbonate	Colorless crystal or white Powder	1	1	-	-	1	1	1	1	1	1	1	1	-	1	1	-	-	-	-	-	-
Potassium Bisulfate	Colorless crystal	1	1	-	-	1	1	1	1	1	1	1	1	1	-	1	-	1	-	-	-	-
Potassium Bromate	White Crystal or Powder	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Potassium Bromide	White Crystals or Powder	1	1	-	-	1	1	1	1	1	1	1	1	-	1	1	-	-	-	-	-	-
Potassium Carbonate	White granular Powder	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	2	1	1	-	X	1
Potassium Carbonate, Liquid	Colorless to Cloudy Liquid	1	1	-	1	1	1	1	1	1	1	1	1	-	1	1	2	1	1	-	X	1
Potassium Chlorate	Colorless to white Powder	1	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-
Potassium Chloride	Colorless to white Solid	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-
Potassium Chloride, Dry	White Solid	1	1	-	1	1	1	1	1	1	1	1	1	-	1	1	-	-	-	-	-	-
Potassium Chromate	Yellow Crystal	1	2	-	-	2	X	X	X	2	2	1	2	1	2	1	-	-	-	-	-	1
Potassium Cuprocyanide	White Crystalline Solid	1	-	-	-	1	1	1	1	1	1	1	1	-	2	1	-	-	-	-	-	1
Potassium Cyanide	White Crystal	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers																Couplings / Adapters				
		Stallion [®] Mustang [®] Renegade [™] Food & Bev. Mstr.																Iron/Carbon Steel Stainless Steel 304 Stainless Steel 316 Aluminum Brass Polypropylene				
T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G								
Teflon [®] Gatlon [™] UHMWPE	Sanitron [™] EPDM NBR	SBR NR	Neoprene	Butyl	Fluorocarbon [®] Hypalon [®] CPE Nylon PVC																	
Potassium Dichromate	White Crystalline Powder	1	-	-	-	-	-	-	-	-	-	1	2	1	-	-	-	-	-			
Potassium Ferrocyanide	Yellow Crystal or Powder	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1			
Potassium Fluoride	White Crystalline Powder	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-			
Potassium Hydrate	White Solid	1	-	-	-	2	2	2	2	2	2	1	X	1	-	2	2	-	1			
Potassium Hydroxide (45% Caustic Potash)	Colorless to Cloudy Liquid	1	1	1	1	2	2	2	2	2	-	1	2	-	1	1	1	-	-			
Potassium Hydroxide, Liquid	Colorless to Cloudy Liquid	1	1	-	-	1	2	2	2	2	1	X	2	-	X	X	-	-	-			
Potassium Iodide	White Solid	1	-	-	-	1	1	-	-	1	-	1	1	-	-	-	1	-	2			
Potassium Nitrate	Colorless to white Solid	1	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-			
Potassium Permanganate	Dark purple Crystal	1	1	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-			
Potassium Persulfate	White Crystal	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-			
Potassium Phosphate	Colorless to white Crystal	1	-	-	-	1	-	-	-	1	-	1	1	-	-	-	-	-	-			
Potassium Silicate, Other Than Dry	-	1	1	-	-	1	1	2	-	1	-	1	-	-	-	-	-	-	-			
Potassium Sulfate	White Crystal or Powder	1	-	-	1	-	-	-	-	-	-	-	-	1	1	1	-	-	-			
Potassium Sulfide	Red or yellow Crystal or Solid	1	1	-	-	1	1	-	-	1	1	1	2	-	-	-	-	-	-			
Potassium Sulfite	White Crystal or Powder	1	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-			
Potassium Thiosulfate	Colorless crystal	1	-	-	-	1	-	-	-	1	-	1	1	-	-	1	-	-	-			
Primatol A, S, P (Ag Spray)	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Propane Gas	Colorless Gas	CONTACT DENVER PRODUCT APPLICATION															-	-	-	-	-	
Propanediol	Colorless Liquid	1	1	-	-	1	1	-	-	X	1	1	2	-	-	-	-	-	-			
Propanol (Propyl Alcohol)	Colorless Liquid	1	1	1	1	1	-	-	-	-	1	1	-	1	1	2	-	-	-			
Propionic Acid	Colorless Oily Liquid	1	1	1	1	2	X	2	2	X	2	1	2	-	-	-	1	1	-			
Propyl Acetate	Colorless Liquid	1	1	1	1	-	-	-	-	-	-	X	-	2	-	-	-	-	-			
Propyl Alcohol (Propanol)	Colorless Liquid	1	1	1	1	1	-	-	-	-	1	1	-	1	1	2	-	-	-			
Propyl Aldehyde	White-water Liquid	1	-	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-			
Propyl Chloride	Colorless Liquid	1	-	-	-	-	X	-	X	-	X	2	X	-	-	-	-	-	-			
Propylene	Colorless Gas	1	-	-	-	X	X	X	X	X	X	1	X	-	-	-	-	-	-			
Propylene Diamine	Colorless Liquid	1	-	-	-	-	2	-	2	-	2	-	X	-	-	-	-	-	-			
Propylene Dichloride (Dichloropropane)	Colorless Liquid	1	-	-	-	X	X	X	X	X	X	2	X	-	-	-	-	-	-			
Propylene Glycol	Liquid	1	1	-	1	1	1	1	1	1	1	1	1	1	2	1	-	-	-			
Propylene Oxide	Colorless Liquid	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-			
Purina Insecticide	-	1	1	-	-	2	X	-	-	X	2	2	-	-	2	-	1	1	1			
Puopale RX Oils	Liquid	1	1	-	-	X	1	-	-	-	X	-	-	-	1	2	1	1	1			
Pydraul 10E, 29E-LT, 30E, 60, 65E, 115SE	Liquid	1	1	-	-	2	X	-	-	-	2	-	-	2	-	X	1	1	1			
Pydraul 135	Liquid	1	1	-	-	-	X	-	-	-	2	1	-	2	2	-	1	1	1			
Pydraul 150	Liquid	1	1	-	-	2	X	X	X	X	2	1	X	2	2	X	1	1	1			
Pydraul 280	Liquid	1	1	-	-	2	X	X	X	X	2	2	X	2	2	X	1	1	1			
Pydraul 312	Liquid	1	1	-	2	X	X	X	X	X	X	1	-	2	1	X	1	1	1			
Pydraul 50E	Liquid	1	1	-	-	2	-	-	-	-	2	2	-	2	1	X	-	-	-			
Pydraul 540	Liquid	1	1	-	-	X	X	X	X	X	X	1	X	2	X	X	1	1	1			
Pydraul 625	Liquid	1	1	-	-	2	X	X	X	X	2	1	X	2	2	X	1	1	1			
Pydraul A-200	Liquid	1	1	-	-	X	X	X	X	X	X	1	X	2	2	X	1	1	1			
Pydraul F-9	Liquid	1	2	-	-	2	X	X	X	X	2	1	X	2	2	-	1	1	1			
Pyrene (Carbon Tetrachloride)	Colorless Liquid	1	2	X	X	X	X	X	X	X	X	1	X	2	1	X	X	2	X			
Pyrethrum	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-			
Pyridine (50%)	-	1	2	-	2	-	-	-	-	X	-	X	X	-	-	X	-	1	1			
Pyrogard 160, 230, 630	Liquid	1	1	-	-	-	-	-	-	-	-	2	-	-	-	-	1	1	1			
Pyrogard 51, 53, 55	Liquid	1	1	-	-	2	X	-	-	-	2	-	-	-	-	-	1	1	1			
Pyrogard C, D	Liquid	1	1	-	-	X	1	-	-	-	X	-	-	-	1	2	1	1	1			
Pyronal (Transformer Oil)	Liquid	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-			

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters				
		Stallion [®]	Mustang [®]	Renegade [®]	Food & Bev. Mstr.											Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Polypropylene
		T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G				
		Teflon [®]	Gatlon [®]	UHMWPE	Sanitron [®]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon	PVC				
Q																				
Quenching Oil	Liquid	1	-	-	-	-	2	-	-	2	-	-	-	-	-	-	-	1	1	1
Quintolubric 822	Liquid	1	1	-	-	2	1	-	-	2	X	1	-	-	1	-	1	1	1	1
R																				
Ramrod (Ag Spray)	-	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	1	1
Rando Oils	Liquid	1	1	-	-	X	1	-	-	-	X	-	-	-	1	-	1	1	1	1
Rape Seed Oil	Brownish to yellow Liquid	1	1	-	2	2	-	-	-	-	2	-	X	-	2	-	1	1	1	1
Red Oil (Commercial Oleic Acid) (MIL-5606)	Liquid	1	2	2	2	2	1	X	X	2	2	2	X	2	1	2	2	2	1	2
Refined Wax (Petroleum)	-	1	1	-	-	-	1	X	X	2	-	1	-	-	1	-	1	1	1	-
Regal Oils R&O	Liquid	1	1	-	-	X	1	-	-	-	X	-	-	-	1	2	1	1	1	1
Richfield "A" Weed Killer	-	1	1	-	-	X	2	X	X	X	X	2	X	-	-	2	-	-	-	-
Road Paving Compound	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Road Tar	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubilene Oils	Liquid	1	1	-	-	X	1	-	-	-	X	-	-	-	1	2	-	-	-	-
S																				
Salicylic Acid	White Powder	1	1	1	1	2	X	2	2	-	2	2	-	-	1	1	-	1	1	2
Salt Water (Sea Water)	Liquid	1	1	-	1	1	2	2	X	2	1	1	2	-	1	1	2	1	1	2
Sauerkraut	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
Sea Water	Colorless Liquid	1	1	-	1	1	2	2	X	2	1	1	2	-	1	1	2	1	1	-
Sevin	-	1	2	-	-	2	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Sewage	Sludge	1	1	1	1	1	2	2	X	2	-	-	2	1	1	2	X	1	1	2
Shampoo	Liquid	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shellac	Orange to colorless flake	1	-	X	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Shortening	-	1	-	-	X	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silicate of Soda	Brownish or yellow Liquid	1	1	-	-	1	1	-	1	1	1	1	1	-	-	-	-	-	-	-
Silicone Greases	Liquid	1	2	-	-	-	2	-	-	2	-	2	2	-	1	2	1	1	1	-
Silicone Oils	Liquid	1	2	-	-	-	2	-	-	2	-	2	2	-	1	2	1	1	1	-
Silver Cyanide	White Powder	1	1	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	1
Silver Nitrate	Colorless crystal	1	1	-	-	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2
Skydrol 500A & 7000	Liquid	1	1	-	1	1	X	X	X	X	2	X	X	2	1	X	1	1	1	-
Soap Oil	Liquid	1	1	2	-	-	X	-	-	X	-	-	X	-	-	-	1	1	1	-
Soap Solutions	Liquid	1	1	1	-	1	1	X	X	2	1	1	1	1	1	1	1	1	1	-
Soap, Liquid	Liquid	1	1	-	-	1	1	2	2	1	2	1	1	-	2	2	1	1	1	-
Soda Ash (Sodium Carbonate)	Grayish Powder	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	X
Soda Water	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
Sodium Acetate	Colorless crystal	1	1	-	-	2	X	2	2	X	2	X	X	1	1	1	1	1	1	1
Sodium Aluminate Solution	Colorless to cloudy Liquid	1	1	-	-	1	1	2	2	1	1	1	1	-	2	2	-	-	-	-
Sodium Benzoate	White Crystals or Powder	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Sodium Bicarbonate	White Crystal or Powder	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	2	1	1	-
Sodium Bichromate Solution	Red to clear Liquid	1	1	-	-	1	2	2	2	2	1	1	2	-	2	2	-	-	-	-
Sodium Bisulfate (Niter Cake)	Colorless Crystals to White Lumps	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	X	1	1	X
Sodium Bisulfite	White Crystals or Powder	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
Sodium Borate (Borax)	White Crystals	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	2	1	1	-
Sodium Carbonate (Soda Ash)	Grayish Powder	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	X
Sodium Chlorate	Colorless Crystals	1	-	-	-	1	1	1	1	2	2	1	1	-	1	1	-	-	-	-
Sodium Chloride	Colorless to white Crystals	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	X

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the <i>polymer only!</i>	Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers																	Couplings / Adapters							
			Stallion [®]	Mustang [®]	Renegade [™]	Food & Bev. Mstr.													Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypropylene			
							T	K	L	S	P	C	D	D	A	H	V	M							J	Z	G
							Teflon [®]	Neoflon [®]	Gafron [™]	UHMWPE	Sanitron [™]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon							Hypalon [®]	CPE	Nylon
Sodium Chlorite Solution	Colorless to cloudy Liquid	2	-	-	-	X	X	2	2	X	2	X	2	-	X	2	-	-	-	-	-	-	-	-			
Sodium Chromate	Yellow, translucent Crystals	1	-	-	-	-	-	1	2	2	1	2	1	X	-	2	2	-	-	-	-	-	-	-			
Sodium Cyanide	In Water	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	X			
Sodium Cyanide	White Crystalline Powder	1	1	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	X			
Sodium Dichromate	Red to red-orange Crystals	1	-	-	-	1	1	2	2	2	2	1	1	2	1	-	1	-	-	-	-	-	-	1			
Sodium Ferricyanide	Ruby-red Crystals	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1			
Sodium Ferrocyanide	Yellow, transparent Crystals	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1			
Sodium Fluoride (70%)	White Liquid	1	1	1	-	2	-	2	2	-	2	-	-	-	-	-	-	-	-	-	-	2	-	-			
Sodium Hydrate	White Solid	1	2	-	-	1	2	2	2	2	2	2	2	2	-	2	2	-	-	-	-	-	-	-			
Sodium Hydrochlorite	Pale greenish Liquid	1	2	-	-	2	X	2	X	X	2	1	1	-	2	2	-	-	-	-	-	-	-	-			
Sodium Hydrosulfide	Colorless needles	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Sodium Hydrosulfite	Lemon colored Powder or flake	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Sodium Hydroxide (10%)	Colorless Liquid	1	1	1	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-			
Sodium Hydroxide (40%)	Colorless Liquid	1	1	1	1	2	2	2	1	1	1	2	1	1	1	X	-	-	-	-	-	-	-	-			
Sodium Hydroxide (50%), Under 212°F / 100°C	Colorless Liquid	1	1	2	1	2	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-			
Sodium Hydroxide (50%), Under 115°F / 46°C	Colorless Liquid	1	1	2	1	2	X	1	1	2	1	X	1	1	X	-	-	-	-	-	-	-	-	-			
Sodium Hydroxide (50%), Under 180°F / 82°C	Colorless Liquid	1	1	2	1	2	X	X	X	2	2	X	2	1	X	-	-	-	-	-	-	-	-	-			
Sodium Hydroxide (60%)	White Liquid	1	2	1	-	2	X	2	2	2	2	X	2	1	X	-	-	-	-	-	-	-	-	-			
Sodium Hydroxide 25%	Colorless Liquid	1	1	1	1	2	2	2	1	1	1	2	1	1	X	-	-	-	-	-	-	-	-	-			
Sodium Hypochlorite (20%)	White Liquid	1	2	1	-	1	X	X	X	X	-	X	1	1	2	1	-	-	-	-	-	-	-	-			
Sodium Hypochlorite (5%)	White Liquid	1	2	1	-	1	X	X	X	-	-	1	1	1	1	1	1	1	1	1	1	1	1	-			
Sodium Hyposulfate	Large, transparent Crystals	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Sodium Metallic	Silver Solid	2	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Sodium Metaphosphate	Colorless Crystals to white Powder	1	1	-	-	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	-			
Sodium Nitrate	Colorless crystal	1	1	-	-	2	X	X	X	X	2	-	2	1	1	1	1	1	1	1	1	2	2	-			
Sodium Perborate	White, amorphous Powder	1	1	-	-	2	X	X	X	X	2	-	X	-	2	-	-	-	-	-	-	-	-	-			
Sodium Peroxide	Yellowish white Powder	1	1	2	-	-	-	-	-	1	1	1	1	1	2	X	1	-	-	-	-	-	-	-			
Sodium Phosphate	Colorless Crystals to white Powder	1	1	-	-	2	-	2	2	X	2	-	-	1	1	1	-	-	-	-	-	-	-	-			
Sodium Silicate	Lumps of greenish glass	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-			
Sodium Sulfate	White Crystals or Powder	1	1	-	-	1	1	2	2	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-			
Sodium Sulfate Decahydrate (Glauber's Salt)	Crystals or Powder	1	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Sodium Sulfhydrate	Colorless to cloudy Liquid	1	2	-	-	1	2	X	2	2	2	2	2	2	-	2	2	-	-	-	-	-	-	-			
Sodium Sulfide	Yellow/Brick red flakes or Crystals	1	1	-	-	1	1	2	2	1	1	1	1	1	1	1	1	-	-	-	-	-	-	1			
Sodium Sulfide Solution	Colorless to cloudy Liquid	1	2	-	-	1	2	-	2	2	2	1	2	2	-	X	-	-	-	-	-	-	-	1			
Sodium Sulfite	White Crystals or Powder	1	1	-	-	2	2	2	2	2	2	2	-	2	1	1	1	1	1	1	1	1	1	-			
Sodium Sulfite Solution	Colorless to cloudy Liquid	1	2	-	-	1	2	-	2	2	1	2	2	-	X	-	-	-	-	-	-	-	-	-			
Sodium Sulphydrate	Colorless needles	1	2	-	-	1	2	-	-	2	1	2	2	-	2	2	-	-	-	-	-	-	-	-			
Sodium Thiocyanate Solution	Colorless to cloudy Liquid	1	1	-	-	1	1	2	-	1	2	1	2	-	-	-	-	-	-	-	-	-	-	-			
Sodium Thiosulfate (HPO)	White Powder	1	1	-	-	1	1	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	-			
Sodium Tripolyphosphate (STPP)	White Powder	1	2	-	-	-	-	-	-	-	2	X	-	-	-	-	-	-	-	-	-	-	-	-			
Solnus Oils	Liquid	1	1	-	-	X	1	-	-	-	-	X	-	-	-	1	1	-	-	-	-	-	-	-			
Sour Crude Oil	Liquid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-			
Soybean Oil	Pale yellow oil	1	1	1	2	X	2	X	X	2	2	1	2	-	1	2	-	-	-	-	-	-	-	-			
Spent Acid	Liquid	1	2	2	X	X	X	X	X	X	X	1	2	X	X	X	-	-	-	-	-	-	-	-			
Stannic Chloride	Colorless, fuming Liquid	1	1	-	-	-	2	2	2	X	X	1	X	1	X	2	-	-	-	-	-	-	-	-			
Stannic Sulfide	Yellow to brown Powder	1	2	-	-	-	2	-	2	-	2	-	2	-	2	-	-	-	-	-	-	-	-	-			
Stannous Chloride (Under 150°F)	White Mass	1	1	-	-	2	1	1	1	1	1	1	1	1	1	X	1	-	-	-	-	-	-	1			
Starch	White amorphous Powder	1	1	-	1	1	2	1	1	2	-	1	1	-	1	1	-	-	-	-	-	-	-	-			
Starch gum (Dextrin)	Yellow or White Powder	1	1	-	-	1	1	-	-	1	X	1	-	-	1	1	-	-	-	-	-	-	-	1			
Stauffer Jet 1	Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Stauffer Jet 2	Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

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		Stallion [®] Mustang [®] Renegade [™] Food & Bev. Mstr.																					
			T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypropylene
			Teflon [®] Gatlon [™] UHMWPE	Sanitron [™] EPDM NBR SBR NR Neoprene	Butyl	Fluorocarbon Hypalon [®]	CPE	Nylon	PVC														
USE STEAM HOSE ONLY																							
Steam	Gas	1	1	1	1	2	2	2	2	2	1	2	1	1	1	X	2	1	X	X	-		
Stearic Acid (Octadecanoic Acid)	Colorless Waxy Solid	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-		
Stearin	Colorless crystal or Powder	1	2	-	2	X	2	X	X	-	X	1	-	1	1	2	2	1	1	-	1		
Stoddard Solvent	Clear petroleum distillate	1	2	-	-	-	-	2	2	-	2	X	-	-	-	-	-	2	1	-	-		
STPP (Sodium Tripolyphosphate)	White Powder	1	2	-	-	-	-	-	-	-	2	X	-	-	-	-	-	2	1	X	X		
Straight Synthetic Oils	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-		
Styrene (Monomer)	Colorless Oily Liquid	1	2	-	X	X	X	X	X	-	X	2	-	2	2	-	2	X	2	X	2		
Sucrose Solutions	Liquid	1	1	-	1	-	1	1	1	1	1	-	1	-	-	-	1	1	1	-	-		
Sugar, Liquid, Blended	Liquid	1	1	-	1	1	1	1	1	1	1	1	2	-	-	-	-	-	-	-	-		
Sugar, Syrup	Liquid	1	1	-	1	1	1	1	1	1	1	1	2	-	-	-	-	-	-	-	-		
Sulfamic Acid	In Water	1	1	1	1	2	X	X	X	-	2	1	2	1	X	X	-	-	-	-	-		
Sulfamic Acid 10% (Under 170°F/77°C)	Colorless Liquid	1	X	-	-	-	-	X	X	-	-	2	2	1	-	-	-	-	-	-	-		
Sulfate Liquors (Under 150°F/66°C)	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	1		
Sulfur (Under 200°F/93°C)	Yellow Crystals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sulfur Chloride	Yellow Oily Liquid	1	2	-	-	X	X	X	X	X	X	1	2	-	2	2	X	X	2	-	X		
Sulfur Dioxide	Colorless Gas or Liquid	-	-	-	1	2	X	X	-	-	2	X	-	-	-	-	-	-	-	-	-		
Sulfur Dioxide (Dry)	-	1	2	-	-	2	X	X	X	X	X	1	2	-	X	1	2	1	1	1	1		
Sulfur Dioxide (Liquid)	Colorless Liquid	1	-	1	-	1	X	X	X	2	2	X	2	-	-	X	-	-	-	-	-		
Sulfur Dioxide (Moist)	-	1	-	1	-	1	X	X	X	2	1	2	2	-	-	X	-	-	-	-	-		
Sulfur Hexafluoride (Gas)	Colorless Gas	1	1	-	-	1	2	2	2	1	1	2	2	-	1	2	-	-	-	-	-		
Sulfur Trioxide (Dry)	Solid	1	2	-	-	2	X	X	X	X	X	1	X	X	-	1	2	2	2	-	-		
Sulfuric Acid (10%)	Colorless Water Solution	1	1	1	1	1	2	1	1	1	1	1	1	1	X	-	-	X	X	2	X		
Sulfuric Acid (100%)	Colorless Liquid	1	X	X	X	X	X	X	X	X	X	2	X	X	-	-	2	X	2	X	X		
Sulfuric Acid (30%)	Colorless Water Solution	1	1	1	1	1	2	2	2	1	1	1	1	1	X	-	X	X	2	X	X		
Sulfuric Acid (50%)	Colorless Water Solution	1	1	1	1	1	X	X	X	2	1	1	1	1	X	-	X	X	2	X	X		
Sulfuric Acid (60%) (48.5 deg Baume)	Colorless Liquid	1	1	1	1	1	X	X	X	X	1	1	1	1	X	-	X	X	2	X	X		
Sulfuric Acid (75%)	Colorless to Brown Solution	1	1	1	1	2	X	X	X	X	2	1	2	2	X	-	X	X	2	X	X		
Sulfuric Acid (88%) (64.7 deg Baume)	Colorless Liquid	1	2	1	2	X	X	X	X	X	X	1	X	X	X	-	X	X	2	X	X		
Sulfuric Acid (93%)	Colorless to Brown Oily Liquid	1	X	1	2	X	X	X	X	X	X	1	X	X	X	-	X	X	2	X	X		
Sulfuric Acid (96%)	Colorless Liquid	1	X	1	2	X	X	X	X	X	X	1	X	X	X	-	X	X	2	X	X		
Sulfuric Acid (98%)	Colorless to Brown Oily Liquid	1	X	1	2	X	X	X	X	X	X	1	X	X	X	-	X	X	2	X	X		
Sulfuric Acid, Fuming (Oleum)	Colorless to Dark Brown Oily Liquid	1	X	X	X	X	X	X	X	X	X	1	X	X	X	-	-	-	1	-	-		
Sulfurous Acid (10%)	Colorless Liquid	1	1	1	1	1	X	X	X	-	2	1	1	1	-	1	-	X	2	1	X		
Sulfurous Acid (75%)	Colorless Liquid	1	1	1	1	1	X	X	X	X	X	1	1	1	X	-	X	X	2	X	X		
Sun R&O Oils	Liquid	1	1	-	-	X	1	-	-	-	X	1	-	-	1	2	1	1	1	1	1		
Suntac HP Oils	Liquid	1	1	-	-	X	1	-	-	-	X	1	-	-	1	2	1	1	1	1	-		
Suntac WR Oils	Liquid	1	1	-	-	X	1	-	-	-	X	1	-	-	1	2	1	-	1	1	-		
Sunvis Oils 700, 800, 900	Liquid	1	1	-	X	X	1	-	-	-	X	1	-	-	1	2	1	1	1	-	-		
Synthetic Oil (Citgo)	Liquid	1	1	-	-	X	-	-	-	-	X	-	-	-	1	2	1	1	1	-	-		
Syrup	Viscous Liquid	1	1	-	1	-	-	1	1	2	-	1	-	-	-	-	-	1	1	-	-		
T																							
Tall Oil	Black liquid	1	2	-	X	X	1	X	X	X	X	2	X	-	-	X	-	X	2	-	-		
Tall Oil (Under 150°F/66°C)	Liquid	1	1	-	2	X	2	X	X	2	X	1	X	-	-	-	-	X	2	-	-		
Tallow	White to clear Solid or Liquid	1	1	-	2	2	2	-	-	2	2	-	-	-	1	2	2	2	2	1	2		
Tannic Acid	Faint Yellow Powder	1	1	1	1	1	X	2	2	2	1	1	2	1	1	1	2	1	1	2	X		
Tannic Acid (10 %)	Yellow Liquid	1	1	-	-	-	X	2	2	2	X	1	2	1	1	1	2	1	1	2	X		
Tar (Bituminous) (Under 100°F/38°C)	-	1	1	2	X	X	2	X	X	2	X	1	-	X	-	-	1	1	1	1	2		
Tar Oil	Yellow to dark brown Liquid	1	-	-	X	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-		
Tartaric Acid	White Crystalline Powder	1	1	1	1	1	2	2	2	2	1	1	1	1	-	-	-	2	2	2	-		
TEA (Triethanolamine)	Colorless Viscous Liquid	1	1	-	-	1	2	2	2	2	2	X	2	1	-	2	-	1	1	-	1		

Chemical Resistance Table

Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended -- = No Data NOTE: Ratings are for the effect on the polymer only!		Gates Hose / Polymers																		Couplings / Adapters										
		Stallion [®]	Mustang [®]	Renegade [®]	Food & Bev. Mstr.															Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum		Brass	Polypropylene				
T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G	Teflon [®] / Neolon [®]	Gatlon [™]	UHMWPE	Sanitron [™]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon	PVC	
Chemical	Form (at room temperature unless otherwise stated)	1	1	-	-	1	2	2	2	2	2	2	X	X	2	1	-	2	-	1	1	-	1	-	1	1	1	-	1	-
TEA (Triethanolamine)	Colorless Viscous Liquid	1	2	-	-	X	2	X	X	X	X	X	1	X	-	2	1	-	-	1	1	1	-	-	1	1	1	-	1	-
TEL (Tetraethyl Lead)	Colorless Oily Liquid	1	1	-	-	X	1	-	-	-	-	X	1	-	-	1	2	-	-	1	1	1	-	-	1	1	1	-	1	-
Tellus Oils	Liquid	1	1	-	-	X	1	-	-	-	-	X	1	-	-	1	2	-	-	1	1	1	-	-	1	1	1	-	1	-
Tenol Oils	Liquid	1	1	-	-	X	1	-	-	-	-	X	1	-	-	1	2	-	-	1	1	1	-	-	1	1	1	-	1	-
Tergitol (Ethoxylates and Ethoxysulfates of Alcohol)	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	-	-	2	-	-	-	-	-
Terpineol	Colorless Liquid or Crystal	1	1	-	-	-	-	X	X	-	X	X	-	2	1	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Tertiary Butyl Alcohol	Colorless Liquid or Crystal	1	2	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachlorobenzene	White Crystal	1	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethane (Acetylene Tetrachloride)	Colorless Liquid	1	X	X	X	X	-	X	X	-	X	1	X	X	1	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethylene	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloromethane	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloronaphthalene	Oily Liquid to Crystalline Solid	1	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetradecanol	White Solid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetraethyl Lead (TEL)	Colorless Oily Liquid	1	2	-	-	X	2	X	X	X	X	1	X	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetraethylene Glycol	Colorless Liquid	1	2	-	-	-	2	-	2	-	-	1	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrahydrofuran (THF)	Colorless Liquid	1	X	-	-	2	X	X	X	X	X	2	1	X	-	1	X	2	-	-	-	-	-	-	-	-	-	-	-	-
Tetrahydroxydicyclopentadiene (JP 10) ²	-	-	-	-	-	X	X	X	X	X	X	X	1	X	-	1	X	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetralin	Colorless Liquid	1	-	-	X	X	X	X	X	X	X	X	1	X	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Theobromo Oil (Cocoa Butter)	Liquid above 95°F (35°C)	1	1	2	2	-	2	X	X	2	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-
THF (Tetrahydrofuran)	Colorless Liquid	1	X	-	-	2	X	X	X	X	X	2	1	X	-	1	X	2	-	-	-	-	-	-	-	-	-	-	-	-
Thiopen	-	1	-	-	-	X	X	X	X	X	X	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tin Tetrachloride	Colorless Liquid	1	-	-	-	-	2	-	2	X	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Titanium Tetrachloride	Colorless Liquid	1	-	-	-	X	X	-	-	X	X	2	-	-	-	-	-	1	2	2	X	X	-	-	-	-	-	-	-	-
Toluene (Toluol) (Methyl Benzene)	Colorless Liquid	1	2	2	X	X	X	X	X	X	X	1	X	X	1	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene Diisocyanate (Hylene)	Yellow Liquid	1	-	-	-	2	X	X	X	X	2	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene Diisocyanate (Isocyanate)	Water White to Yellow Liquid	1	2	-	X	X	X	X	X	X	X	1	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-
Toluidine	Yellow Liquid or White Crystal	1	-	-	-	-	X	-	X	-	-	X	2	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluol (Toluene)	Colorless Liquid	1	2	2	X	X	X	X	X	X	X	1	X	X	1	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transformer Oil (Askarel Types) ¹	Liquid	1	2	2	X	X	X	X	X	X	X	1	X	X	1	1	X	1	1	1	-	-	-	-	-	-	-	-	-	-
Transformer Oil (Petroleum Type) ¹	Liquid	1	1	-	-	X	1	X	X	2	X	1	X	X	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Transmission Fluid (Type A)	Liquid	1	1	-	-	X	1	X	X	2	X	1	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tributoxyethyl Phosphate	Yellow Liquid	1	1	X	-	2	X	X	X	-	2	-	X	X	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tributyl Phosphate	Colorless Liquid	1	1	X	-	X	X	X	X	X	X	1	X	X	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tricalcium Aluminate (Calcium Aluminate)	Crystals or Powder	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorobenzene	White Crystal or colorless Liquid	1	2	-	-	-	X	X	X	X	X	2	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethane 1,1,1 (Methyl Chloroform)	Colorless Liquid	1	X	-	X	X	X	X	X	X	X	1	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethylene	Colorless Liquid	1	1	X	X	X	X	X	X	X	X	1	X	X	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloropropane	Colorless Liquid	1	-	-	-	2	-	X	2	X	1	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tricresyl Phosphate	Colorless Liquid	1	-	X	-	1	X	X	X	X	2	1	X	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triethanolamine (TEA)	Colorless Viscous Liquid	1	1	-	-	1	2	2	2	2	2	X	2	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triethylamine	Colorless Liquid	1	-	-	-	2	2	X	X	-	X	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triethylene Glycol	Colorless Liquid	1	-	-	-	-	2	-	2	-	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trihydroxybenzoic Acid (Gallic Acid)	In Alcohol or Glycerol	1	1	1	1	1	X	2	2	X	2	1	-	1	X	X	X	1	1	1	-	-	-	-	-	-	-	-	-	-
Trimethyl Phosphate	Colorless Liquid	1	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trimethylbenzene (Mesitylene)	Liquid	1	-	-	X	X	X	X	X	X	X	1	-	-	1	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trinitrophenol (Picric Acid)	Yellow Crystals	1	2	2	2	2	2	2	2	2	2	1	2	-	X	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trioctyl Phosphate	Liquid	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triphenyl Phosphate	Colorless Powder	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tripolyphosphate (STPP), (Sodium)	White Powder	1	2	-	-	2	-	2	2	-	2	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trisodium Phosphate (TSP)	Colorless crystal	1	-	-	-	1	2	2	X	2	2	1	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tung Oil	Yellow drying oil	1	2	-	X	X	2	X	X	X	X	1	2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

¹ Petroleum hose only.

²Aircraft fueling hose only for fueling operations.

TABLA QUÍMICA PARA MANGUERAS GATES

Chemical Resistance Table

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers																Couplings / Adapters									
		Stallion [®]	Mustang [®]	Renegade [®]	Food & Bev. Mstr.																						
		T	K	L	S	P	C	D	D	A	H	V	M	J	Z	G											
		Teflon [®] /Neoflon [®]	Gatron [®]	UHMWPE	Sanitron [®]	EPDM	NBR	SBR	NR	Neoprene	Butyl	Fluorocarbon	Hypalon [®]	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypropylene					
Contact Denver Product Application for recommendations for chemicals not listed. Phone (303) 744-5070 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the effect on the polymer only .																											
Turpentine	Liquid oil	1	X	1	X	X	2	X	X	X	X	1	X	2	1	1	-	1	1	1	2	-					
U																											
Ucon Hydrolube Types 150CP, 200CP	Liquid	1	1	-	-	1	1	-	-	-	1	-	-	-	1	2	1	1	1	1	1	-					
Ucon Hydrolube Types 275CP, 300CP, 550CP	Liquid	1	-	-	-	-	1	X	X	-	X	1	-	-	2	2	-	-	-	-	-	-					
Ucon M1	Liquid	1	1	-	-	1	1	-	-	-	1	-	-	-	1	2	1	1	1	1	1	-					
Undecanol (Undecyl Alcohol)	Colorless Liquid	1	-	-	-	-	1	-	2	-	-	2	2	-	-	-	-	-	-	-	-	-					
Undecyl Alcohol (Undecanol)	Colorless Liquid	1	-	-	-	-	1	-	2	-	-	2	2	-	-	-	-	-	-	-	-	-					
Union Hydraulic Tractor Fluid	Brown Liquid	1	1	-	-	X	1	-	-	-	X	-	-	1	2	1	1	1	1	1	1	-					
Urea Solution (100%)	Liquid	1	1	-	1	-	2	1	1	1	2	-	1	1	2	1	1	1	1	1	-	-					
V																											
Varnish	-	1	2	-	X	X	X	X	X	X	X	2	X	-	1	-	2	1	1	-	2	-					
Vegetable Oils	Liquids	1	-	1	2	2	-	X	X	2	X	-	1	1	1	2	1	1	1	1	-	-					
Versilube F-50, F-44	Liquid	1	-	-	-	2	2	2	2	2	2	1	2	-	1	2	1	1	1	1	1	-					
Vinegar	Brownish to colorless Liquid	1	1	-	1	-	2	2	2	2	2	1	X	2	-	1	X	2	1	X	X	-					
Vinyl Acetate	Colorless Liquid	1	1	X	2	X	X	X	X	X	2	X	X	1	-	-	-	1	2	1	2	-					
Vinyl Chloride (Monomer)	-	1	2	-	-	X	X	X	X	X	X	2	X	X	-	X	2	1	1	1	X	-					
Vinyl Fluoride	Colorless Gas	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-					
Vinyl Trichloride (Trichloroethane)	Colorless Liquid	1	-	-	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-					
Vitrea Oils	Liquid	1	1	-	-	X	1	-	-	-	X	-	-	-	1	2	1	1	1	-	-	-					
VM&P Naptha (Mineral Spirits)	Colorless Liquid	1	1	-	X	X	1	X	X	-	X	1	X	-	1	-	1	1	1	2	1	-					
W																											
Waste Paint	Liquid to semi-Solid paste	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Water	Liquid	1	1	1	1	1	1	1	1	1	1	-	1	1	1	1	2	1	1	1	1	-					
Water (Brine)	Liquid	1	1	-	1	1	2	1	1	2	1	1	1	-	1	1	-	-	-	-	-	1					
Water (Deionized)	Liquid	1	-	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-					
Water (Distilled)	Liquid	1	1	1	1	1	1	1	1	2	1	-	1	-	1	1	-	-	-	-	-	1					
Water (Potable)	Liquid				USE FDA HOSE ONLY																						1
Water Glycols	Liquid	1	1	1	1	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-					
Water in Oil Emulsions	Liquid	1	1	1	2	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-					
White & Bagley No. 2190 Cutting Oil	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Wines	Liquid	1	2	-	1	X	X	X	X	X	X	1	X	1	1	-	2	2	2	1	-	-					
Wood Oil	Liquid	1	1	-	-	X	1	X	X	2	X	1	2	1	1	1	-	-	-	-	-	-					
X																											
Xylene (Dimethylbenzene)	Colorless Liquid	1	2	X	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-					
Xylenol (Dimethylphenol)	White solid, liquid @ 68°F (20°C)	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-					
Z																											
Zeric	-	1	1	-	-	X	1	-	-	-	X	-	-	-	2	2	-	-	-	-	-	-					
Zinc Acetate	White Crystal	1	1	-	-	2	X	2	2	X	2	X	X	-	X	1	1	1	1	1	1	-					
Zinc Chloride Solutions	Colorless to cloudy Liquid	1	1	-	1	-	1	2	2	1	2	1	1	1	1	2	X	2	1	X	X	-					
Zinc Chromate	Yellow Solid	1	1	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	1	-	-	-					
Zinc Hydrate	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-					
Zinc Oxide	White or gray Powder	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-					
Zinc Sulfate Solutions	Colorless to cloudy Liquid	1	1	-	-	2	2	X	X	2	2	-	2	1	2	2	X	2	1	X	X	-					

TABLA QUÍMICA PARA MANGUERAS RYCO

Characteristics of Hose Elastomers

The characteristics shown below are for the normal, or usual, range of these specific Elastomers. Characteristics can be change somewhat, through different compounding, to meet the requirements of specialised applications. Each elastomer has a unique combination of strengths and weaknesses. Depending on each specific application, the elastomer must possess the correct combination of properties if it is to perform satisfactorily.

Tube and cover elastomers may occasionally be upgraded to take advantage of improved materials and technology.

For detailed information on specific hose tube or cover check the Chemical Compatability Table on page 401, and also the specific hose specifications page.

COMMON NAME Chemical Name	NEOPRENE Poly-Chloroprene	NITRILE Acrylonitrile & Butadiene	HYPALON™ Chlorosulfonated Polyethylene	EPDM Ethylene Propylene Diene	CPE Chlorinated Polyethylene	POLYESTER Polyamide Resin	TEFLON™ Fluorinated Thermoplastic
Common Designation	CR	NBR	CSM	EPDM	CPE	PE-E	PTFE
Flame Resistance	Very Good	Poor	Good	Poor	Good	Poor	Good
Petroleum Base Oils	Good	Excellent	Very Good	Poor	Very Good	Very Good	Excellent
Diesel Fuel	Good to Excellent	Excellent	Good	Poor	Very Good	Very Good	Excellent
Resistance to Gas Permeation	Good	Good	Good to Excellent	Fair to Good	Good	Good	Good to Excellent
Weather	Good to Excellent	Fair to Good	Very Good	Excellent	Good	Excellent	Excellent
Ozone	Good to Excellent	Poor for Tube Good for Cover	Very Good	Excellent	Good	Good	Excellent
Heat	Good	Good	Very Good	Excellent	Excellent	Good	Excellent
Low Temperature	Fair to Good	Poor to Fair	Poor	Good to Excellent	Good	Good	Excellent
Water - Oil Emulsions	Excellent	Excellent	Good	Poor	Excellent	Very Good	Excellent
Water/Glycol Emulsions	Excellent	Excellent	Excellent	Excellent	Excellent	Very Good	Excellent
Phosphate Esters to 82°C (180°F)	Fair (For Cover)	Poor	Excellent (not for Aerospace types)	Very Good	Very Good	Good	Excellent
Phosphate Ester Base Emulsions	Fair (For Cover)	Poor	Excellent (not for Aerospace types)	Very Good	Very Good	Good	Excellent

HYPALON™, TEFLON™ DUPONT

TABLA QUÍMICA PARA MANGUERAS RYCO

Chemical Compatibility for Hose

The following Chemical Compatibility Chart is for guidance only.

In all cases, testing is advised to determine the application suitability.

Material for Couplings and Adaptors must also be compatible - refer to RYCO Hydraulics Technical Department.

Specified resistance applies only at room temperature unless otherwise stated, and within the listed concentration.

CHEMICAL NAME	TUBE MATERIAL						
	NEOPRENE	NITRILE	PVC	CPE	HYPALON™	POLYESTER	TEFLON™
Acetic Acid (25%)	2	X	2	1	2	X	1
Acetone	X	X	X	1	X	X	1
Acetylene	NO HOSE AVAILABLE						
Air (71°C, 166°F)	1	1	1	1	1	1	1
Air (82°C, 180°F)	2	2	2	1	2	2	1
Air (93°C, 199°F)	X	X	X	1	2	X	1
Amyl Acetate	X	X	X	2	X	X	1
Aniline	X	X	X	2	X	-	1
Benzene (Benzol)	X	X	X	X	X	X	1
Butyl Acetate	X	X	X	2	X	X	1
Butyl Alcohol (Butanol)	2	X	X	1	2	2	1
Carbon Dioxide (Dry)	2	1	1	1	1	-	1
Carbon Dioxide (Wet)	2	1	1	1	1	-	1
Carbon Disulfide	X	X	X	2	X	-	1
Chlorine Gas (Dry & Wet)	NO HOSE AVAILABLE						
Chlorine Water (25%)	X	X	X	-	2	X	1
Chloroform	X	X	X	-	X	X	1
Cyclohexane	X	2	X	1	X	2	1
Diesel fuel (under 50°C, 122°F)	X	1	X	2	X	1	1
Ethers (under 50°C, 122°F)	X	2	2	1	2	X	1
Ethyl Acetate	X	X	X	2	X	2	1
Ethyl Alcohol (Ethanol)	1	1	-	1	1	2	1
Ethyl Cellulose	-	-	-	1	-	-	1
Ethyl Chloride (Wet)	2	X	X	-	X	-	1
Ethylene Glycol (under 66°C, 151°F)	1	1	1	1	1	1	1
Fluorine (Liquid)	NO HOSE AVAILABLE						
Formaldehyde 37%	2	2	-	1	2	2	1
Fuel A (ASTM)	X	2	2	1	1	-	-
Fuel B (ASTM)	X	2	X	2	X	-	-
Fuel Oil	X	1	X	1	X	2	1
Glycerine (Glycerol)	1	1	1	1	1	1	1
Grease (Petroleum Base)	2	1	2	-	2	1	1
Hexane (under 50°C, 122°F)	X	1	2	2	1	2	1
Hydraulic Fluid (Phosphate Ester Base)	X	X	X	1	1	2	1
Hydraulic Fluid (100°C, 212°F) (Std. Petroleum Oils)	2	1	2	1	1	1	1
Hydrochloric Acid (15%)	X	X	X	1	2	X	1
Hydrochloric Acid (37%)	X	-	X	1	2	X	1
Hydrogen (Gas)	1	1	-	1	-	2	1
Hydrogen Peroxide (30%)	X	2	X	1	2	X	1

CHEMICAL NAME	TUBE MATERIAL						
	NEOPRENE	NITRILE	PVC	CPE	HYPALON™	POLYESTER	TEFLON™
Isopropyl Alcohol	2	2	2	1	2	-	1
Kerosene	X	2	X	1	X	2	1
L.P.G.	USE L.P.G. HOSE ONLY						
Lubricating Oils (under 50°C, 122°F)	2	1	2	1	2	1	1
Methyl Alcohol (Methanol) 100%	1	1	1	1	1	2	1
Methyl Chloride	X	X	X	X	X	2	1
Methyl Ethyl Ketone (MEK)	X	X	X	2	X	2	1
Naphtha (Low Aromatics)	X	2	X	1	X	X	1
Natural Gas	USE L.P.G. HOSE ONLY						
Nitric Acid (10%)	X	X	X	1	2	X	1
Nitric Acid (40%)	X	X	X	X	X	X	1
Oxalic Acid (10% cold)	X	X	X	1	2	X	1
Ozone (Dry)	2	X	2	1	2	2	1
Paint Solvents (Oil Base)	X	X	-	-	X	2	1
Perchloroethylene	X	X	X	2	X	X	1
Phenol (Carbolic Acid)	X	X	X	1	X	X	1
Phosphoric Acid (50%)	2	2	X	1	1	X	1
Propane Gas	USE L.P.G. HOSE ONLY						
Sodium Hydroxide (40%)	1	2	-	1	1	X	1
Sodium Hydroxide (50%, under 45°C, 113°F)	2	X	X	1	1	X	1
Sodium Hydroxide (50%, under 82°C, 180°F)	-	-	-	1	2	X	1
Sulphur Dioxide (Dry)	X	X	X	-	2	X	1
Sulphuric Acid (10%)	1	2	2	1	1	X	1
Sulphuric Acid (93%)	X	X	X	-	X	X	1
Toluene (Toluol)	X	X	X	X	X	2	1
Trichloroethylene	X	X	X	2	X	2	1
Vegetable Oils	2	1	2	1	2	1	1
Xylene	X	X	-	X	-	2	1

1 = Excellent Resistance

2 = Good Resistance

X = Not Recommended

- = No Data Available

HYPALON™, TEFLON™ DUPONT

TABLA QUÍMICA PARA MANGUERAS M.

FLUID COMPATIBILITY

CHART

	GOLDENSPIR ROCKMASTER XTRAFLEX	TRACTOR SHIELDMASTER ROCKMASTER R17- ISO 3000 PILOT LYTE FLEX COVER	EQUATOR	ADLER ASTRO SPIRTEX VEGA	POWERPLAST POWERTWIN
Fluid	Wire Spiralled	Wire Braided		Textile Braided	TPE Wire Braided
STRAIGHT PETROLEUM-BASE					
Ambra Hitech 46	E	E	G	E	G
Aral Vitam 46, 68	E	G	-	G	G
Bechem Hydrostar Pm 46	E	E	G	E	-
Cassida Hf 46 Shell	G	G	E	G	G
Castrol Hyspin Hdh 7000	E	E	E	E	-
Exxon Dexron 2 (Atf Fluid)	G	F	E	F	E
Mobil Delwac 13 10 10W20	G	E	G	E	G
Oso 32 Agip	E	E	G	E	G
Pentosin Chf 11 S (Atf Fluid)	G	F	E	F	-
Shell Tellus 46	E	E	E	E	E
Sint 2000 Agip	G	E	G	E	G
HIGHLY REFINED PETROLEUM-BASE					
Aeroshell Fluid 41	E	E	F	E	F
Castrol Aero Hf 585 B	G	E	-	E	C
Hydraunyc Oil Fh 51 Ifi Mil H515	G	E	F	E	F
Hydraunyc Oil Fh 6 Ifi Mil C635	G	E	F	E	F
Mobil Aero Hf Mil H5606	G	G	C	G	-
ESTER & PHOSPHATE ESTER OILS					
Anderol 497	F	G	C	G	-
WATER EMULSION					
Houghton Hydravis Bc 84005 (60 °C)	E	E	C	E	E
Water Glycole Emulsion (50%)	E	E	G	E	E
POLYGLYCOLE					
Mobil Glycole 30	E	E	E	E	G
POLYGLYCOL ESTER BLENDS					
Ssr Ultracoolant	E	G	G	G	G
BIOLOGICAL ESTER OILS					
Avia Sintofluid 32	G	E	G	E	G
Avia Sintofluid 46	E	E	F	E	G
Aviaticon Hy He	G	E	-	E	G
Castrol Biotech Alpin 22	E	E	F	E	-
Cosmolubric Hf 130	G	G	F	G	-
Dea Econa 46	G	E	G	E	E
Esso Hydraulikoel He 46	E	E	G	E	E
Fina Biohydan Se 46	G	G	-	G	G
Greensave N40 Quaker	G	G	F	G	G
Neste Biohydrauli Se 46	E	E	G	E	G
Omv Ms 46 (100 °C)	G	G	-	G	G
Panolin Hlp 46 (100 °C)	G	E	C	E	E
Plantosyn 3268	F	G	C	G	G
Plantosin 3268 Eco	F	E	C	E	G
Quintolubric N822	G	G	-	G	-
Raisio Biosafe Se 46	G	G	F	G	-
Shell Naturelle Hfe 46	G	E	F	E	G
Teboil Eco 46	E	G	F	G	G
Texaco Hydra 46	E	E	F	E	G
Texaco Sinstar Ht 68	G	E	F	E	G
BIOLOGICAL VEGETABLE OILS					
Binol Hydra P li 46	E	G	-	G	-
Bp Biohyd 46	G	E	G	E	-
Mobil Eal 224 H	G	E	F	E	G
Ukabiol Hy 46 Htg	G	E	C	E	G

E = Excellent - Negligeable change of compound properties: no problem for use.

G = Good - Minor changes of compound properties: product certification according to standard qualification tests needed

F = Fair - Significant changes of some compound properties: product validation under simulated or actual working conditions required.

C = Conditional - Relevant changes of some compound properties: use is not recommended unless hose validation availability.

 These notes shall be intended only as a guide to chemical compatibility with the internal fluid; other combined factors in working operations, as pressure, temperature, vibrations and so on, may impact in the service life.

TABLA QUÍMICA PARA MANGUERAS M.

FLUID COMPATIBILITY CHART

	GOLDEN SPIR ROCKMASTER XTRAFLEX	TRACTOR SHIELDMASTER ROCKMASTER R 17-ISO 3000 PILOT LYTE FLEX COVER	EQUATOR	ADLER ASTRO SPIRTEX VEGA	POWERPLAST
Fluid	Wire Spiralled	Wire Braided		Textile Braided	TPE Wire Braided
A Acetaldehyde	F	F	F	F	-
Acetic acid, 10%	F	F	G	F	E
Acetic acid, 25% 100 °C	F	F	F	F	G
Acetic acid glacial	F	F	F	F	G
Acetone	F	F	F	F	E
Air (80 °C)	G	G	E	G	G
Air (100 °C)	G	F	E	F	C
Air (150 °C)	C	C	E	C	C
Ammonia, gaseous	G	E	G	E	C
Ammonia, liquid	F	G	F	G	C
Ammonium hydroxide, 10%	E	G	E	G	-
Ammonium hydroxide, conc.	E	F	E	F	-
Ammonium nitrate (aqueous solution)	G	G	G	G	G
Ammonium phosphate, mono-di-tri basic (aq. sol.)	E	E	E	E	G
Ammonium sulphate (aqueous solution)	E	E	E	E	G
Aniline	F	F	F	F	C
Aqua regia	F	F	C	F	-
ASTM oil n °1, 100 °C	E	E	E	E	E
ASTM oil n °2, 100 °C	G	E	G	E	E
ASTM oil n °3, 100 °C	F	E	F	E	E
B Benzene	C	F	C	F	E
Boric acid, 10% 100 °C	E	E	E	E	E
Brake fluid (SAE J 1703d)	-	C	G	C	-
Butanol	E	E	E	E	E
C Calcium bicarbonate	E	E	E	E	-
Calcium hydroxide (aqueous suspension)	E	E	E	E	-
Carbonic anhydride	G	G	G	G	E
Chlorine	F	F	G	F	C
Chloroform	F	F	F	F	C
Citric acid, 33%	G	G	G	G	E
Crude oil	F	E	F	E	G
D Dibenzyl ether	C	C	C	C	-
Dibutyl phthalate (DBP)	C	F	C	F	E
Diesel fuel (70 °C)	F	G	F	G	G
E Epichlorohydrin	C	C	C	C	C
Ethyl acetate	C	F	F	F	G
Ethyl alcohol	E	E	E	E	E
Ethyl ether (70 °C)	F	G	-	G	-
Ethylene	E	E	-	E	G
Ethylene glycol	E	E	G	E	E
Ethylene glycol, 100 °C	G	E	G	E	G
F Formaldehyde	G	F	F	F	G
Formic acid, 23 °C (saturated solution)	G	G	G	G	G
Formic acid, 75 °C (saturated solution)	F	F	F	F	F
Fuel A (iso-octane)	G	E	G	E	E
Fuel B (70% iso-octane, 30% toluene)	F	G	F	E	E
Fuel C (50% iso-octane, 50% toluene)	C	F	C	G	E
G Glycerine	E	E	E	E	E
H Heptane	F	E	F	E	E
Hydraulic oils (see detailed table)	*	*	*	*	*
Hydrochloric acid, 10%	G	G	G	G	G
Hydrochloric acid, 37%	F	G	G	G	C
Hydrochloric acid, 37% 70 °	C	C	C	C	C
Hydrocyanic acid, 20%	F	F	-	F	-
Hydrogen sulphide	G	C	F	C	E
I Isobutyl alcohol	E	G	E	G	E
Isopropyl alcohol	E	G	E	G	E
Iso-octane	G	E	G	E	E

TABLA QUÍMICA PARA MANGUERAS M.

FLUID COMPATIBILITY

CHART

		GOLDEN SPIR ROCKMASTER XTRAFLEX	TRACTOR SHIELDMASTER ROCKMASTER R 17-ISO 3000 PILOT LYTE FLEX COVER	EQUATOR	ADLER ASTRO SPIRTEX VEGA	POWERPLAST POWERTWIN
Fluid		Wire Spiralled	Wire Braided		Textile Braided	TPE Wire Braided
K	Kerosene (aromatics 40% max)	F	G	F	E	-
L	Lead free petrol	F	E	F	E	-
M	Magnesium hydroxide (aqueous solution)	E	G	E	G	-
	Mercury	E	E	E	E	E
	Methanol	E	G	E	G	G
	Methyl methacrylate	C	C	C	C	-
	Methylethylketone (MEK)	F	C	F	C	E
N	Nitric acid, concentrated 65%	C	C	F	F	C
	Nitric acid, diluted 10% 50 °C	C	F	F	F	C
	Nitric acid, fuming	C	C	C	C	C
	Nitrogen	G	G	G	G	G
O	Oleic acid	F	F	G	F	E
	Oleum	F	G	F	G	C
	Oxalic acid, 25% 80 °	G	G	G	G	-
	Oxygen (80 °C)	G	F	E	F	E
P	Paraffin	E	E	E	E	E
	Pentane	F	E	F	E	E
	Petrol	F	E	F	E	E
	Petroleum, 150 °C	C	C	F	C	-
	Phenol	F	C	C	C	C
	Phosphoric acid, 20%	F	G	F	G	-
	Phosphoric acid, 60% 50 °C	C	F	C	F	-
	Phosphoric acid, 85%	C	F	C	F	-
	Phosphorous tri-chloride	C	C	C	C	-
	Picric acid, 10% 100 °C	F	F	G	F	-
	Potassium chloride (aqueous solution)	E	E	E	E	-
	Potassium hydroxide, 70 °C (medium high conc.)	G	G	E	G	E
	Potassium sulphate (aqueous solution)	E	E	E	E	-
S	Sea water	E	E	F	E	E
	Soaps (solution)	G	E	G	E	E
	Soda	G	G	G	G	G
	Sodium bicarbonate	E	E	E	E	-
	Sodium chloride (aqueous solution)	E	E	E	E	E
	Sodium hydroxide	G	F	G	F	E
	Sodium hydroxide, 70 °C (medium high conc.)	G	F	G	F	E
	Sodium hypochlorite (aqueous solution)	G	F	G	F	E
	Sodium silicate (aqueous solution)	E	E	E	E	-
	Sodium sulphate (aqueous solution)	E	E	E	E	-
	Sodium sulphide	E	E	E	E	-
	Stearic acid	E	E	E	E	E
	Sulphur	G	G	G	G	-
	Sulphur dioxide	C	C	C	C	-
	Sulphuric acid (hot concentrated 96%)	C	C	C	C	C
	Sulphuric acid (diluted 20%)	C	C	F	C	E
	Sulphuric anhydride	F	C	F	C	-
	Sulphurous acid	C	C	F	C	C
T	Tannic acid	G	F	G	F	E
	Tannin	E	E	E	E	E
	Tartaric acid, 20%	G	E	G	E	-
	Tetraethyl lead	G	G	F	G	-
	Toluene	C	F	C	F	E
	Turpentine	C	G	C	G	-
U	Urea (aqueous solution)	E	E	G	E	-
V	Vinyl acetate	E	E	E	E	-
	Vinyl chloride	C	C	C	C	-
W	Water	E	E	F	E	E
X	Xylene	C	F	C	F	G
Z	Zinc chloride (aqueous solution)	E	E	E	E	E
	Zinc sulphate (aqueous solution)	E	E	E	E	-