



Chemical-Resistance Guide

耐化学性指南



2021

以下页面中列出的数据总结了各种化学品对Volta产品的影响。除非另有说明，否则大多数数据均基于原材料制造商和供应商提供的信息，有些数据基于在室温下对浸入式试样进行的实验室测试。数据没有考虑在实际使用中可能遇到的所有变量。

我们强调，此处包含的数据仅应用作指南。我们建议您在操作条件下使用与传送带接触的实际介质测试耐化学性。

通常，耐化学性取决于化学性质、暴露时间、温度和浓度。

根据一般规则，在减少以下情况时，耐化学性可以得到改善：

※ 温度

※ 清洗时所接触的时间

※ 浓度

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<u>Reagents</u>	<u>Code</u>	<u>Reagents</u>	<u>Code</u>
Acetic Acid (glacial)	1.1	Cyclohexane	6.1
Acetic Acid (20%)	1.1	Cyclohexanol	5
Acetic Acid (3%)	1.1	Dibutyl Phthalate	9
Acetone	8	Diesel Fuel	11
Aluminum Chloride (25%)	3	Diethyl Ether	12
Aluminum Sulfate (25%)	3	Diethyl Sebacate	9
Ammonium Chloride	3	Dimethyl Acetamide	12
Ammonium Hydroxide (3%)	2	Dimethyl Formamide	12
Ammonium Nitrate (25%)	3	Dimethyl Sulphoxide	12
Ammonium Sulfate (25%)	3	Diethyl Phthalate	9
Amyl Acetate	9	Epichlorohydrin	7.3
Amyl Alcohol	5	Ethanol	5
Aniline	12	Ethyl Acetate	9
Anti-Freeze (Glysantine)	12	Ethyl Chloride	7.1
ASTM - Oil 1 (>100°C)	10.1	Ethylene Dichloride	7.1
ASTM - Oil 2 (>100°C)	10.1	Ethylene Glycol	5
ASTM - Oil 3 (>100°C)	10.1	Fish Oil	10.3
ASTM Reference Fuel A	11	Formaldehyde (40%)	8
ASTM Reference Fuel B	11	Formic Acid (20%)	1.1
ASTM Reference Fuel C	11	Freon (116 , 12, 113, 114)	7.1
ASTM Reference Fuel D	11	Glycerin	5
Benzene	6.2	Hexane	6.1
Benzyl Alcohol	5	Hexanol	5
Boric Acid (3%)	1.2	Hydrazine	12
Brake Fluid	12	Hydrochloric Acid (20%)	1.2
Bromine (anhydrous Liquid)	4	Hydrochloric Acid (3%)	1.2
Butane	6.1	Hydrochloric Acid (37%)	1.2
Butyl Acetate	9	Hydrofluoric acid (48%)	1.2
Calcium Chloride (25%)	3	Hydrogen Peroxide (30%)	4
Calcium Hydroxide (dilute)	2.1	Hydrogen Sulfide	1.2
Carbon Tetrachloride	7.1	iso Butanol	5
Castor Oil	10.3	Iso Octane	6.1
Chlorine gas	4	Iso-Propanol	5
Chlorobenzene	7.2	Javelle water (0.5%)	4
Chloroform	7.1	JP-4 Jet Fuel	11
Citric Acid (3%)	1.1	Kerosene	11
Coconut Oil	10.3	Lactic Acid (3%)	1.1
Corn Oil	10.3	Lubricating Oil	10.2
Cottonseed Oil	10.3	Methanol	5
Cyclo hexanone	8	Methyl ethyl ketone	8

<u>Reagents</u>	<u>Code</u>	<u>Reagents</u>	<u>Code</u>
Methylene Chloride	7.1	Sodium Hydroxide (Caustic Soda) (3%)	2.1
Mineral Oil	10.2	Sodium Hydroxide (Caustic Soda) (46%)	2.1
Nitric Acid (20%)	1.2	Sodium Hypochlorite (3%) (Javelle water)	4
Nitric Acid (3%)	1.2	Sodium Nitrate (25%)	3
Nitrobenzen	12	Sodium Nitrate (3%)	3
N-Methyl Pyrrolidone	12	Sodium Propionate	3
Nut Oil	10.3	Sodium Sulfite (3%)	3
Oleic acid	1.1	Steam (100°C)	0
Oleum (20%)	1.1	Styrene	12
Olive Oil	10.3	Sulfuric Acid (20%)	1.2
Ozone	4	Sulfuric Acid (3%)	1.2
Palmitic acid	1.1	Sulfuric Acid (Battery Acid)	1.2
Peanut Oil	10.3	Sunflower oil	10.3
Pentane	6.1	Super Gasoline Leaded	11
Perchloroethylene	7.1	Super Gasoline Unleaded	11
Petrolether	12	Tanic Acid (10%)	1.1
Phenol	5	Tap Water	0
Phenolic Solution (3%)	1.1	Test Fluid A	11
Phosphoric Acid (3%)	1.2	Test Fluid B	11
Potassium Hydroxide (dilute)	2.1	Test Fluid C	11
Pyridine	12	Tetrachloroethylene	7.1
Sea Water	0	Tetrahydrofurane	12
Silicone Fluid	12	Toluene	6.2
Sodium Bisulfate (3%)	1.2	Trichloroethane	7.1
Sodium Chloride (25%)	3	Triethanolamine Solution (3%)	2.2
Sodium Citrate	3	Urea Solution (3%)	2.2
Sodium dichromate (20%)	4	Xylene	6.2

Chemical-Resistance chart of Volta Belts

Rating key: G-Good resistance, F-Fair, P-Poor resistance

Reagents Type	L & M Family	H Family	LT/DR
0. Water			
Tap Water	G	G	G
Sea Water	G	G	G
Steam (100°C)	P	F	F
1. Acids			
1.1 Organic Acids			
Formic Acid (20%)	P	F	P
Acetic Acid (glacial)	P	F-G	G
Acetic Acid (20%)	P	G	P
Acetic Acid (3%)	P-F	G	G
Lactic Acid (3%)	P-F	G	G
Citric Acid (3%)	F	G	G
Tanic Acid (10%)	G	G	G
Palmitic acid	P-F	G	G
Oleic acid	P-F	G	G
Phenolic Solution (3%)	F-G	F-G	F-G
1.2 Inorganic Acids			
Hydrochloric Acid (37%)	P	P	P
Hydrochloric Acid (20%)	P	F	F
Hydrochloric Acid (3%)	P	F	G
Nitric Acid (20%)	P	P	P
Nitric Acid (3%)	P	F	P
Sulfuric Acid (Battery Acid)	P	P	P
Sulfuric Acid (20%)	P	F	P
Sulfuric Acid (3%)	P	G	G
Oleum (20%)	P	P	P
Hydrogen Sulfide	--	G	--
Sodium Bisulfate (3%)	F-G	G	G
Phosphoric Acid (3%)	F	G	G
Boric Acid (3%)	F-G	G	G
Hydrofluoric acid (48%)	P	P	P

Reagents Type	L & M Family	H Family	LT/DR
2. Basic Solution			
2.1 Alkaline			
Sodium Hydroxide (Caustic Soda) (46%)	P-F	F	F
Sodium Hydroxide (Caustic Soda) (3%)	F	G	G
Calcium Hydroxide (dilute)	G	G	G
Potassium Hydroxide (dilute)	F	G	G
2.2 Other			
Ammonium Hydroxide (3%)	P-F	F	G
Urea Solution (3%)	F-G	--	G
Triethanolamine Solution (3%)	F-G	--	G
3. Salt Solution			
Aluminum Chloride (25%)	G	G	G
Aluminum Sulfate (25%)	G	G	G
Ammonium Nitrate (25%)	G	--	G
Ammonium Sulfate (25%)	G	F	G
Ammonium Chloride	G	G	G
Calcium Chloride (25%)	F-G	G	G
Sodium Chloride (25%)	F-G	G	--
Sodium Nitrate (25%)	F-G	--	--
Sodium Nitrate (3%)	G	--	G
Sodium Sulfite (3%)	G	--	G
Sodium Citrate	P-F	F	--
Sodium Propionate	P-F	F	--
4. Oxidizing			
Hydrogen Peroxide (30%)	F	P	F
Ozone	F	F	F
Sodium Hypochlorite (3%) (Javelle water)	P-F	G	F
Javelle water (0.5%)	F	G	G
Chlorine gas	P	P	P
Bromine (anhydrous Liquid)	P	P	F
Sodium dichromate (20%)	--	F	--

Reagents Type	L & M Family	H Family	LT/DR
5. Alcohols			
Methanol	P-F	G	F
Ethanol	F	G	G
Iso-Propanol	F	G	G
Iso Butanol	F	G	F
Amyl alcohol	F	G	G
Hexanol	F	G	G
Cyclohexanol	F	G	F
Benzyl Alcohol	P	--	P
Ethylene Glycol	G	G	G
Glycerin	G	G	G
Phenol	--	P	P
6. Hydrocarbon			
6.1 Aliphatic			
Butane	G	G	G
Pentane	G	G	G
Hexane	G	G	G
Cyclohexane	G	G	G
Iso Octane	G	G	G
6.2 Aromatic			
Toluene	F	F	F
Benzene	F	F	F
Xylene	F	F	F
7. Halogenated Hydrocarbon			
7.1 Aliphatic Halogenated Hydrocarbon			
Methylene Chloride	P	P	P
Ethyl Chloride	P	P	P
Ethylene Dichloride	P	P	P
Chloroform	P	P	P
Carbon Tetrachloride	P	F	F
Tetrachloroethylene	F	P	F
Trichloroethane	F	P	F
Perchloroethylene	--	P	--
Freon (11 ⁶ , 12, 113, 114)	--	G	--

Reagents Type	L & M Family	H Family	LT/DR
7.2 <u>Aromatic Halogenated Hydrocarbon</u>			
Chlorobenzene	P-F	P	P
7.3 <u>Other Halogenated Hydrocarbon</u>			
Epichlorohydrin	--	P	P
8. <u>Aldehydes & Ketones</u>			
Methyl ethyl ketone	P	F	P
Acetone	P-F	F	P-F
Formaldehyde (40%)	--	F	F
Cyclo hexanone	P	--	P
9. <u>Aliphatic Esters</u>			
Ethyl Acetate	P-F	F	F
Butyl Acetate	P-F	F	P-F
Amyl Acetate	P-F	F	P-F
Dibuthyl Phthalate	G	G	--
Diethyl Sebacate	G	G	--
Diethyl Phthalate	G	G	G
10. <u>Oils</u>			
10.1 <u>ASTM Oils</u>			
ASTM - Oil 1 (>100°C)	G	G	G
ASTM - Oil 2 (>100°C)	G	G	G
ASTM - Oil 3 (>100°C)	G	G	G
10.2 <u>Others</u>			
Mineral Oil	G	G	G
Lubricating Oil	G	G	G
10.3 <u>Edible Oils</u>			
Cottonseed Oil	G	G	F
Castor Oil	F	F	G
Olive Oil	G	G	G
Corn Oil	G	G	G
Coconut Oil	G	G	G
Fish Oil	G	G	G
Peanut Oil	G	G	G
Nut Oil	G	G	G
Palm Oil	G	G	G
Soya Oil	G	G	G
Sunflower oil	G	G	G

Reagents Type	L & M Family	H Family	LT/DR
11. Fuels			
Test Fluid A	G	--	F
Test Fluid B	F	--	F
Test Fluid C	P-F	--	F
Diesel Fuel	G	F	G
ASTM Reference Fuel A	G	G	G
ASTM Reference Fuel B	F	G	F
ASTM Reference Fuel C	F	G	F
ASTM Reference Fuel D	F	G	F
Super Gasoline Leaded	G	F	--
Super Gasoline Unleaded	G	F	--
Kerosene	G	G	G
JP-4 Jet Fuel	G	G	--
12. Other Solvents			
Anti-Freeze (Glysantine)	F-G	P	G
Silicone Fluid	G	G	G
Brake Fluid	P	P	P
Aniline	P	P	F
Tetrahydrofurane	P	F	P
Dimethyl Formamide	P	G	P
Dimethyl Acetamide	P	--	P
Pyridine	P	P	P
N-Methyl Pyrrolidone	P	--	P
Dimethyl Sulphoxide	P	--	P
Nitrobenzen	--	P	--
Diethyl Ether	F	F	F
Petrolether	G	G	G
Hydrazine	P	P	P
Styrene	--	P	P