

Technical Details				
Model	XMaxx-GLYCOL-FG-XT-100PCT-5G	XMaxx-GLYCOL-FG-XT-100PCT-55G	XMaxx-GLYCOL-FG-XT-50PCT-5G	XMAXX-GLYCOL-FG-XT-50PCT-55G
Physical state	Liquid	Liquid	Liquid	Liquid
Composition	BioGlycol, inhibitors, water	BioGlycol, inhibitors, water	BioGlycol, inhibitors, water	BioGlycol, inhibitors, water
Appearance	Clear	Clear	Clear	Clear
Odor	None	None	None	None
Volume (gal)/(l)	1 / 3.8	55 / 208	1 / 3.8	55 / 208
pH	8.8	8.8	8.8	8.8
Freeze Point (°F)/(°C)	-20.5 / -29	-20.5 / -29	-20.5 / -29	-20.5 / -29
Boiling point (°F)/(°C)	>310 / 154	>310 / 154	>222 / 100	>222 / 100
Flash point	None	None	None	None
Mix	100% Glycol	100% Glycol	50 / 50	50 / 50
Solubility in water	Soluble	Soluble	Soluble	Soluble

A list of the thermo-physical properties of not diluted XMaxx-GLYCOL-FG-XT is given below.

Temp (°F)	Density (lb/ft)	Specific Heat (Btu/lb·°F)	Thermal Cond. (Btu/hr·ft·°F)	Viscosity (cP)
-20		67.71	0.188	
-10	67.55	0.79	0.191	45.6
0	67.38	0.8	0.194	32.1
10	67.21	0.81	0.196	24.2
20	67.03	0.81	0.199	18.8
30	66.85	0.82	0.201	14.6
40	66.67	0.83	0.204	11.5
50	66.48	0.84	0.206	9.07
60	66.29	0.84	0.208	7.22
70	66.09	0.85	0.21	5.8
80	65.89	0.86	0.211	4.72
90	65.69	0.87	0.213	3.89
100	65.49	0.87	0.214	3.25
120	65.06	0.89	0.215	2.36
140	64.62	0.91	0.218	1.81
160	64.16	0.92	0.22	1.45
180	63.69	0.94	0.221	1.21
200	63.2	0.95	0.221	1.06
220	62.7	0.97	0.221	0.96

Thermo-physical glycol properties depending on its volume are given below.

Viscosity (1cP = 0.001 Pa*s)									
Volume									
Temp (°F)	20%	25%	30%	35%	40%	45%	50%	55%	60%
-30									498
-20									299
-10							96	140	183
0					40.9	51.1	61.3	88.2	115
10			13.4	20.2	27	33.8	40.6	57.4	74.2
20	5.36	7.63	9.89	14.2	18.5	23.2	27.8	38.6	49.3
30	4.23	5.85	7.46	10.3	13.1	16.4	19.7	26.7	33.7
40	3.41	4.58	5.75	7.68	9.6	12	14.3	19	23.7
50	2.79	3.66	4.52	5.87	7.21	8.96	10.7	13.9	17.1
60	2.32	2.97	3.62	4.59	5.56	6.85	8.13	10.4	12.6
70	1.95	2.45	2.94	3.66	4.38	5.36	6.34	7.93	9.51
80	1.66	2.05	2.43	2.98	3.52	4.28	5.04	6.19	7.34
90	1.43	1.74	2.04	2.46	2.88	3.48	4.08	4.93	5.77
100	1.25	1.49	1.73	2.07	2.4	2.8	3.35	3.99	4.62
120	0.97	1.14	1.3	1.52	1.73	2.05	2.36	2.74	3.11
140	0.78	0.9	1.01	1.16	1.31	1.53	1.75	1.99	2.22
160	0.64	0.73	0.82	0.93	1.04	1.2	1.35	1.51	1.66
180	0.54	0.61	0.68	0.77	0.85	0.97	1.08	1.19	1.29
200	0.46	0.52	0.58	0.65	0.71	0.8	0.88	0.96	1.04
220	0.4	0.45	0.5	0.56	0.61	0.68	0.74	0.8	0.86

Thermal Conductivity, Btu/hr-ft.°F (1 Btu/hr-ft.°F = 1.73 W/mK)									
Volume									
Temp (°F)	20%	25%	30%	35%	40%	45%	50%	55%	60%
-30									0.171
-20							0.188	0.181	0.174
-10							0.191	0.184	0.176
0					0.211	0.203	0.194	0.186	0.178
10			0.235	0.225	0.215	0.206	0.196	0.188	0.179
20	0.262	0.251	0.239	0.229	0.218	0.209	0.199	0.19	0.181
30	0.267	0.255	0.243	0.233	0.222	0.212	0.201	0.192	0.183
40	0.272	0.26	0.247	0.236	0.225	0.215	0.204	0.194	0.184
50	0.277	0.264	0.251	0.239	0.227	0.217	0.206	0.196	0.186
60	0.281	0.268	0.254	0.242	0.23	0.219	0.208	0.198	0.187
70	0.285	0.272	0.258	0.246	0.233	0.222	0.21	0.199	0.188
80	0.289	0.275	0.261	0.248	0.235	0.223	0.211	0.2	0.189
90	0.292	0.278	0.263	0.25	0.237	0.225	0.213	0.202	0.19
100	0.295	0.281	0.266	0.253	0.239	0.227	0.214	0.203	0.191
120	0.298	0.283	0.268	0.255	0.241	0.228	0.215	0.204	0.192
140	0.306	0.29	0.274	0.26	0.245	0.232	0.218	0.206	0.194
160	0.309	0.293	0.277	0.262	0.247	0.234	0.22	0.207	0.194
180	0.312	0.296	0.279	0.264	0.249	0.235	0.221	0.208	0.195
200	0.314	0.297	0.28	0.265	0.249	0.235	0.221	0.208	0.194
220	0.314	0.297	0.28	0.265	0.246	0.235	0.22	0.207	0.194

Specific Heat, Btu/lb·°F (1 Btu/lbm·°F = 4,186 J/kg°C)									
Volume									
Temp	20%	25%	30%	35%	40%	45%	50%	55%	60%
-20									0.799
-10									0.804
0							0.855	0.832	0.809
10					0.898	0.879	0.859	0.837	0.814
20			0.936	0.919	0.902	0.883	0.864	0.842	0.82
30	0.966	0.952	0.938	0.922	0.906	0.887	0.868	0.847	0.825
40	0.968	0.955	0.941	0.925	0.909	0.891	0.872	0.851	0.83
50	0.97	0.957	0.944	0.929	0.913	0.895	0.877	0.856	0.835
60	0.972	0.96	0.947	0.932	0.917	0.899	0.881	0.861	0.84
70	0.974	0.962	0.95	0.935	0.92	0.903	0.886	0.866	0.845
80	0.976	0.965	0.953	0.939	0.924	0.907	0.89	0.87	0.85
90	0.979	0.968	0.956	0.942	0.928	0.911	0.894	0.875	0.855
100	0.981	0.97	0.959	0.945	0.931	0.915	0.899	0.88	0.861
120	0.985	0.975	0.965	0.952	0.939	0.924	0.908	0.89	0.871
140	0.989	0.98	0.97	0.958	0.946	0.931	0.916	0.899	0.881
160	0.993	0.985	0.976	0.965	0.953	0.939	0.925	0.908	0.891
180	0.996	0.989	0.982	0.972	0.961	0.948	0.934	0.918	0.902
200	1	0.994	0.988	0.978	0.968	0.956	0.943	0.928	0.912
220	1.003	0.999	0.994	0.985	0.975	0.963	0.951	0.937	0.922
240	1.007	1.003	0.999	0.991	0.982	0.971	0.96	0.946	0.932

Density, lb/ft3 (1 lbm/ft3= 16 kg/m3)									
Volume									
Temp	20%	25%	30%	35%	40%	45%	50%	55%	60%
-30									67.05
-20							66.46	66.7	66.93
-10							66.35	66.58	66.81
0					65.71	65.97	66.23	66.46	66.68
10			65	65.3	65.6	65.86	66.11	66.33	66.54
20	64.23	64.57	64.9	65.19	65.48	65.73	65.97	66.18	66.38
30	64.14	64.47	64.79	65.07	65.35	65.59	65.82	66.02	66.22
40	64.03	64.35	64.67	64.94	65.21	65.44	65.67	65.86	66.05
50	63.92	64.23	64.53	64.8	65.06	65.28	65.5	65.69	65.87
60	63.79	64.09	64.39	64.65	64.9	65.12	65.33	65.51	65.68
70	63.66	63.95	64.24	64.49	64.73	64.94	65.14	65.31	65.47
80	63.52	63.8	64.08	64.32	64.55	64.75	64.95	65.11	65.26
90	63.37	63.64	63.91	64.14	64.36	64.55	64.74	64.89	65.04
100	63.2	63.47	63.73	63.95	64.16	64.35	64.53	64.67	64.81
120	62.85	63.09	63.33	63.54	63.74	63.9	64.06	64.19	64.32
140	62.46	62.68	62.9	63.09	63.27	63.42	63.57	63.68	63.79
160	62.03	62.23	62.43	62.6	62.76	62.9	63.03	63.13	63.22
180	61.56	61.74	61.92	62.07	62.22	62.34	62.45	62.53	62.61
200	61.05	61.21	61.37	61.5	61.63	61.73	61.83	61.9	61.97
220	60.5	60.64	60.78	60.89	61	61.09	61.17	61.23	61.28
240	59.91	60.03	60.15	60.25	60.34	60.41	60.47	60.51	60.55

Vapor Pressure, psia (1 psi = 6,895 Pa = 0.069 bar = 0.0681 atm = 51.7 mmHg = 21.7 inH2O)									
	Volume								
Temp	20%	25%	30%	35%	40%	45%	50%	55%	60%
100	0.9	0.9	0.9	0.9	0.9				
110	1.9	1.6	1.2	1.2	1.2	1.2	1.1	1.1	1
120	1.7	1.7	1.6	1.5	1.5	1.5	1.5	1.5	1.4
130	2.2	2.2	2.1	2.1	2	2	1.9	1.9	1.8
140	2.8	2.8	2.7	2.7	2.6	2.6	2.5	2.4	2.3
150	3.6	3.6	3.5	3.5	3.4	3.4	3.2	3	3
160	4.6	4.5	4.4	4.4	4.3	4.2	4.1	4	3.8
170	5.8	5.8	5.6	5.4	5.4	5.3	5.2	5	4.8
180	7.2	7.1	7	6.9	6.7	6.6	6.5	6.2	5.9
190	9	8.9	8.7	8.5	8.3	8.2	8.1	7.8	7.4
200	11	10.9	10.7	10.5	10.2	10.1	9.9	9.5	9.1
210	13.5	13.5	13.1	12.8	12.5	12.3	12.1	11.6	11.1
220	16.4	16.4	15.9	15.6	15.2	15	14.8	14.2	13.6
230	19.8	19.5	19.2	18.8	18.4	17.8	17.8	17.1	16.4
240	23.8	23.4	23	22.5	22	21.7	21.4	20.6	19.7
250	28.4	27.9	27.4	26.9	26.3	26	25.6	24.6	23.5

PRODUCT FEATURES

- ✓ Unlike typical propylene or ethylene glycols which are made from foreign oil or natural gas.
- ✓ The production of XMaxx-GLYCOL-FG-XT emits 40% less greenhouse gases and use 20% less energy to produce than propylene glycol.
- ✓ completes your green application while possessing similar or better physical properties compared to ethylene and propylene glycol fluids.
- ✓ It offers better performance than propylene glycol while providing its users with a more environmentally friendly product than ethylene glycol.
- ✓ It is based a completely renewable, non-toxic corn-based material supported by NSF International
- ✓ Designed for your solar thermal application
- ✓ With 30% less viscosity at lower temperatures and better thermal stability than other glycols (up to 350°F)



Available Models



1.877.786.6299

fax: 1.800.786.0329

www.sunmaxxsolar.com

SECURITY MEASURES

FIRST-AID MEASURES

- ✓ SKIN EXPOSURE
Flush skin with water after contact. Wash contaminated clothing before reuse.
- ✓ EYE EXPOSURE
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
- ✓ INHALATION
If inhaled remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician.
- ✓ INGESTION
If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call physician.

SPECIAL FIRE-FIGHTING PROCEDURES

- ✓ Evacuate personnel to safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Avoid breathing vapor. Use water spray to knock down vapor

ACCIDENTAL RELEASE MEASURES

- ✓ SPILL AND LEAK RESPONSE
Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of an uncontrolled release, clear the affected area, protect people, and respond with trained personnel.
- ✓ SMALL SPILL
Cover with absorbent material (floor absorbent, vermiculite, etc.) Soak up spill and place material into a drum.
- ✓ LARGE SPILL
Personnel involved with large releases should wear protective equipment. Stop spill at source, dike the area surrounding the spill to prevent further exposure. Prevent material from entering sewer system. If necessary, absorbents such as vermiculite, clay floor absorbent may be used on spill and shoveled into drums.

STORAGE AND HANDLING PRACTICES

- ✓ Avoid breathing vapor or mist. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Avoid prolonged or repeated exposure. Keep container tightly closed. Keep away from heat, sparks and flames. Store in a cool, dry place