

## SAMPLES & INFORMATION

CUSTOMER SERVICE  
800.260.5373

NORTH AMERICA  
[chemical.division@carpenter.com](mailto:chemical.division@carpenter.com)

OUTSIDE NORTH AMERICA  
[chemdivintl@carpenter.com](mailto:chemdivintl@carpenter.com)

ONLINE  
[carpenter.com](http://carpenter.com)

SAMPLE SIZE  
1 Quart 2 LB (~ 1 KG)  
1 Gallon 8 LB (~4 KG)  
5 Gallons 40 LB (~20 KG)

PRODUCTS PACKAGED/SHIPPED  
Drum 460 LB (~208 KG)  
Totebin (IBC) 2300 LB (1043 KG)  
Tank Truck ~44400 LB (~20 MT)  
Flexitank ~44400 LB (~20 MT)  
Railcar ~185000 LB (~84 MT)

# CARPOL<sup>®</sup> Polyols for Polyurethanes

## PRODUCT GUIDE

 CARPENTER

  
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CHEMICALS DIVISION

## CARPOL® Diols

### TYPICAL PROPERTIES

PRODUCT NAME	COMPOSITION	Approximate Functionality	Hydroxyl Number mgKOH/g	Approximate Molecular Weight Da	Average pH	Water Content (Max) %	Viscosity at 25°C cP	Color APHA (Max)	Density at 25°C lb/gal	Renewable Content %
PGP - 400	Propylene Glycol, Propylene Oxide	2.0	264-299	400	7.0	0.02	75	35	8.30	-
PGP - 1000	Propylene Glycol, Propylene Oxide	2.0	107-117	1,000	7.0	0.02	150	35	8.28	-
PGP - 2000	Propylene Glycol, Propylene Oxide	2.0	54-57.5	2,000	7.0	0.02	300	35	8.33	-
PGP - 3000	Propylene Glycol, Propylene Oxide	2.0	35-39	3,000	7.0	0.02	600	35	8.47	-
PGP - 4000	Propylene Glycol, Propylene Oxide	2.0	26-30	4,000	7.0	0.02	890	35	8.33	-
<b>REACTIVE</b> PGP - 2012	Propylene Glycol, Propylene Oxide, 12% Ethylene Oxide cap	2.0	54-58	2,000	7.0	0.04	317	35	8.33	-
<b>REACTIVE</b> PGP - 2528	Propylene Glycol, Propylene Oxide, 28% Ethylene Oxide cap	2.0	42-47	2,500	7.0	0.04	450	70	8.68	-
<b>REACTIVE</b> PGP - 2740	Propylene Glycol, Propylene Oxide, 40% Ethylene Oxide cap	2.0	40-44	2,700	7.0	0.04	470	70	8.76	-
<b>REACTIVE</b> PGP - 2816	Propylene Glycol, Propylene Oxide, 16% Ethylene Oxide cap	2.0	38-42	2,800	7.0	0.04	460	35	8.76	-
<b>REACTIVE</b> PGP - 3815	Propylene Glycol, Propylene Oxide, 15% Ethylene Oxide cap	2.0	28-31	3,800	7.0	0.04	660	35	8.60	-
<b>REACTIVE</b> PGP - 4025	Propylene Glycol, Propylene Oxide, 25% Ethylene Oxide cap	2.0	26-30	4,000	7.0	0.04	1,000	35	8.60	-

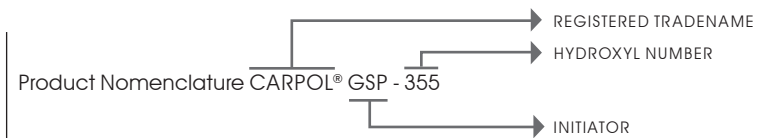
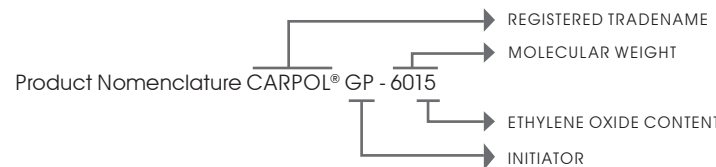
All diols may be acidified to a nominal pH of 5 or 6 upon request

## CARPOL® Triols

### TYPICAL PROPERTIES

PRODUCT NAME	COMPOSITION	Approximate Functionality	Hydroxyl Number mgKOH/g	Approximate Molecular Weight Da	Average pH	Water Content (Max) %	Viscosity at 25°C cP	Color APHA (Max)	Density at 25°C lb/gal	Renewable Content %
GP - 700	Glycerin, Propylene Oxide	3.0	230-250	700	7.0	0.02	270	35	8.56	10-15
GP - 1000	Glycerin, Propylene Oxide	3.0	160-176	1,000	7.0	0.02	250	35	8.55	5-10
GP - 1500	Glycerin, Propylene Oxide	3.0	106-118	1,500	7.0	0.02	275	35	8.48	5-10
GP - 3000	Glycerin, Propylene Oxide	3.0	54-58	3,000	7.0	0.02	500	35	8.36	<5
GP - 3510	Glycerin, Propylene Oxide, 10% Ethylene Oxide located internally	3.0	45.5-48.5	3,500	7.0	0.04	500	35	8.52	<5
<b>REACTIVE</b> GP - 725	Glycerin, Propylene Oxide, 25% Ethylene Oxide cap	3.0	230-250	700	7.0	0.04	250	35	8.36	10-15
<b>REACTIVE</b> GP - 4520	Glycerin, Propylene Oxide, 20% Ethylene Oxide cap	3.0	34.1-37.3	4,500	7.0	0.04	833	35	8.59	<5
<b>REACTIVE</b> GP - 5015	Glycerin, Propylene Oxide, 15% Ethylene Oxide cap	3.0	32-36	5,000	7.0	0.04	840	35	8.43	<5
<b>REACTIVE</b> GP - 5171	Glycerin, Propylene Oxide, 71% Ethylene Oxide	3.0	33-38	5,000	7.5	0.04	1,200	70	8.41	<5
<b>REACTIVE</b> GP - 6015	Glycerin, Propylene Oxide, 15% Ethylene Oxide cap	3.0	26-30	6,000	7.0	0.04	1,100	35	8.44	<5
<b>REACTIVE</b> GP - 6307	Glycerin, Propylene Oxide, 7% Ethylene Oxide	3.0	26-29	6,300	7.0	0.04	1,180	35	8.49	<5
<b>REACTIVE</b> GSP - 7216	Mixed Starter, Propylene Oxide, Ethylene Oxide cap	4.2	29.5-32.5	7,200	6.5	0.05	1,250	100	8.85	<5

All triols may be acidified to a nominal pH of 5 or 6 upon request



**PG** Propylene Glycol  
**GP** Glycerin  
**SPA** Sucrose/Amine DEOA

**TEAP** Triethanol Amine  
**EDAP** Ethylene Diamine  
**GSP** Glycerin/Sucrose

**MX** Mannich (Phenol)  
**SP** Sucrose  
**PES** Polyester

## CARPOL® Amine Polyols

### TYPICAL PROPERTIES

PRODUCT NAME	COMPOSITION	Approximate Functionality	Hydroxyl Number mgKOH/g	Approximate Molecular Weight Da	Average pH	Water Content (Max) %	Viscosity at 25°C cP	Color Gardner (Max)	Density at 25°C lb/gal	Renewable Content %	Total Anime Value mgKOH/g
SPA-357	Sucrose, Diethanol Amine, Propylene Oxide	5.5	335-365	880	10.3	0.08	2,500	12	8.99	10-15	49.0
SPA-530	Sucrose, Diethanol Amine, Propylene Oxide	5.5	520-540	580	11.0	0.08	11,000	12	9.16	20-25	70.0
TEAP-265	Triethanol Amine, Propylene Oxide	3.0	625-645	265	11.0	0.10	465	7	9.00	-	213.0
EDAP-770	Ethylene Diamine, Propylene Oxide	4.0	757-783	290	11.0	0.05	56,000	2	8.64	-	384.0
EDAP-800	Ethylene Diamine, Propylene Oxide, Ethylene Oxide	4.0	750-815	280	11.0	0.05	16,000	2	8.82	-	404.0

## CARPOL® Sucrose Polyols

### TYPICAL PROPERTIES

PRODUCT NAME	COMPOSITION	Approximate Functionality	Hydroxyl Number mgKOH/g	Approximate Molecular Weight Da	Average pH	Water Content (Max) %	Viscosity at 25°C cP	Color Gardner (Max)	Density at 25°C lb/gal	Renewable Content %	Total Anime Value mgKOH/g
GSP-280	Glycerin, Sucrose, Propylene Oxide, Ethylene Oxide	7.0	270-290	1,400	7.0	0.08	2,600	7	9.22	25-30	n/a
GSP-355	Glycerin, Sucrose, Propylene Oxide	4.5	350-370	800	7.0	0.08	3,700	7	9.11	25-30	n/a
GSP-370	Glycerin, Sucrose, Propylene Oxide	7.0	360-380	1,060	10.0	0.10	27,000	12	9.32	25-30	1.0
GSP-520	Glycerin, Sucrose, Propylene Oxide	5.0	510-530	540	10.0	0.10	34,000	12	9.08	25-30	2.0
SP-477	Sucrose, Propylene Oxide	5.0	450-490	600	7.0	0.10	33,000	7	9.42	25-30	1.0

## CARPOL® Mannich Polyols

### TYPICAL PROPERTIES

PRODUCT NAME	COMPOSITION	Approximate Functionality	Hydroxyl Number mgKOH/g	Approximate Molecular Weight Da	Average pH	Water Content (Max) %	Viscosity at 25°C cP	Color Gardner (Max)	Density at 25°C lb/gal	Renewable Content %	Total Anime Value mgKOH/g
MX-425	Mannich Base, Propylene Oxide, Ethylene Oxide	4.0	415-435	530	11.0	0.10	5,200	6	9.30	-	147.5
MX-470	Mannich Base, Propylene Oxide, Ethylene Oxide	4.0	450-490	480	11.0	0.10	10,000	6	9.35	-	165.5

## CARPOL® Aromatic Polyester Polyols

### TYPICAL PROPERTIES

PRODUCT NAME	COMPOSITION	Approximate Functionality	Hydroxyl Number mgKOH/g	Approximate Equivalent Weight Da	Acid Value (Max) mgKOH/g	Water Content (Max) %	Viscosity at 25°C cP	Density at 25°C lb/gal	Aromatic Content %	Recycled Content %
PES-295	Aromatic Acid, Mixed Glycol	2.4	295-315	184	2.0	0.20	10,500	10.43	38	46
PES-302	Aromatic Acid, Mixed Glycol	2.1	285-305	190	2.0	0.20	3,000	10.77	36	45
PES-305	Aromatic Acid, Mixed Glycol	2.2	285-315	187	1.5	0.20	5,000	10.35	36	43
PES-352	Aromatic Acid, Mixed Glycol	2.2	335-365	160	2.0	0.20	3,000	10.35	34	40
PES-375	Aromatic Acid, Mixed Glycol	3.0	360-380	152	2.0	0.20	6,500	10.43	32	37