

# MPDiol® Glycol

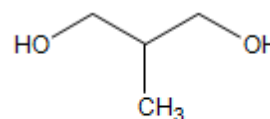
## Elastomer Compatibility and Plastic Resistance

### General

The data provided here addresses the ability of the elastomer seal material or plastic to resist the contacting fluid. Many factors can contribute to performance in actual field conditions. For instance, some elastomer compounds shrink instead of swell in certain fluids. This phenomenon, coupled with high compression set, can result in seal leakage following thermal or pressure cycling. Seals behave differently in dynamic applications than in static conditions. Whenever in doubt, test for suitability before using.

### Physical Properties

Chemical Name	2-Methyl-1,3-Propanediol
CAS Number	2163-42-0
Molecular Weight (g/mole)	90.1
Boiling Point (760 mm Hg)	212°C
Flash Point (Closed cup)	127°C
Specific Gravity @25°/25°C	1.015
Evaporation Rate (n-BuAc = 100)	<0.1
Vapor Pressure (760 mm Hg @ 20°C)	0.04



Structure of MPDiol® Glycol

### MPDiol Elastomer Compatibility

Elastomer	% Weight Change	% Area Change	Color Change
Natural Rubber	-3.09	-7.2	Green
Neoprene	-2.11	-3.96	Brown
Butyl	-0.50	-1.99	None
Silicone	0.07	0	None
EPDM	-0.70	0	Lt. Yellow
Viton	-0.29	0	None
PVC	-12.24	-13	None
Mylar	0	0	None
Hypalon	0.49	0	Yellow
BUNA	-1.27	-1.99	Brown
Teflon	0.04	0	None
Nylon	0.40	0	None
Kalrez	-0.02	0	None

The average % change in weight and area, and the color change were taken after 6 weeks at 120°F.

### Chemical Resistance Of Plastic And Elastomers

For the following, chemical resistance was measured after 6 weeks at 50°C.

Elastomer	Resistant
ABS/Nitrile/Buna	No
Neoprene	No
PTFE	Yes
PVC	No
Vitron	Yes

For the following, chemical resistance was determined by experience in actual field conditions at ambient temperature.

Elastomer	Resistant
Irradiated Polyethylene	Yes
Kalrez	Yes
Mylar	Yes
Nylon	Yes
Silicone	Yes
Teflon	Yes
Viton	Yes

ABS - Acrylonitrile Butadiene Styrene

PTFE - Poly Tetra Fluoro Ethylene (Teflon) PVC - Poly Vinyl Chloride

Viton - Vinylidene fluoride / hexafluoropropylene copolymer

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Neoprene - Chloroprene polymer  
Butyl - Isobutylene / Isoprene Copolymer

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