IMPAG AG • Räffelstrasse 12
8045 Zürich • Switzerland
T +41 43 499 25 00 • info@impag.ch

Chemical Intermediates

With our market-leading brands like Bisomer®, DMPA® and TRIMET®, our chemicals range is designed around a variety of different needs and challenges.

From resins to architectural finishes, adhesives to paints and coatings, there is something for every application.

But what they have in common is their quality.

GEO® SPECIALTY CHEMICALS

A division of CPS Performance Materials

GEO's Paints & Coatings Division helps formulators develop new products and solutions across a wide variety of industries.

We not only deliver specialty monomers and polymers on a global scale, but we combine our practical capability with a more personal level of service and attention.

A more personal approach for your polymer synthesis

At GEO, we believe a greater level of understanding means a greater level of service. That's why our comprehensive chemicals range is designed around your specific needs and challenges, from water based automotive coatings to low VOC composites.

Our established processes, product innovation and agile UK and US manufacturing locations mean that we thrive in the small details. With GEO, you don't just get market-leading products like Bisomer® Specialty Monomers, DMPA® and TRIMET® TME. You get a close relationship, a can-do attitude and our full attention, whatever the size of your order.

Our products

- Hydroxy Methacrylates – HEMA, HPMA
- Polyether Methacrylates
- MPEG Methacrylates
- Mono-functional Methacrylates – LMA, BZMA
- Di-functional Methacrylates – TEGDMA, PEGDMA, BDDMA
- DMPA® – Dimethylolpropionic Acid
- TRIMET® TME – Trimethylolethane
- Polyether based Foam Control Additives
- Allyl functional Polyethers
- Specialty Polyethers and Polyesters

Our approach

A personal service

Our people are committed, knowledgeable and passionate about exceeding your expectations – because we take the time to understand your applications, we can recommend the ideal solution.

Established facilities

Our proven processes and manufacturing facilities enable us to deliver at scale all around the world.

Whatever you need – and wherever you need it – we're here to help.

Practical innovation

We're always looking for new ways to meet your needs.

By spending time getting to know your organisation, our innovation is always driven by you – so new products, improvements and ideas deliver real value.

Chemical Intermediates

Product List	6
Applications	9
Chemical & Physical Properties	12
Chemical Inventory Registrations	16
Classification & Labelling	19
Food Packaging Regulations	25
BfR Recommendations	26
FDA 21 CFR Approvals	27
Kosher/Halal Certifications	28

Product List

Product Name	CAS #	Description	Features & Benefits
HYDROXY MONOMERS			
Bisomer® HEMA	868-77-9	Hydroxyethyl methacrylate	Hydrophilic hydroxy based cross-linker
Bisomer® HPMA	27813-02-1	Hydroxypropyl methacrylate	Hydrophobic hydroxy based cross-linker
Bisomer® PEA6	26403-58-7	Polyethyleneglycol (6) monoacrylate	Hydrophilic, plasticizing, low shrinkage, low PII value
Bisomer® PPA6	50858-51-0	Polypropyleneglycol (6) monoacrylate	Hydrophobic, plasticizing, low shrinkage, low PII value
Bisomer® PEM6 LD	25736-86-1	Polyethyleneglycol (6) monomethacrylate	Hydrophilic, non-toxic, plasticizing properties
Bisomer® PPM5 LI	39420-45-6	Polypropyleneglycol (5) monomethacrylate	Hydrophobic, non-toxic, plasticizing properties
Bisomer® PEM63P HD	58916-75-9	Polypropyleneglycol monomethacrylate	Hydrophobic/-philic balance, plasticizing properties
MONO-FUNCTIONAL MONOMERS			
Bisomer® IDMA	29964-84-9	Isodecyl methacrylate	Hydrophobic, internal polymer plasticization
Bisomer® LMA	142-90-5	Lauryl methacrylate	Hydrophobic, internal polymer plasticization
Bisomer® LMA97 SP	142-90-5	Lauryl methacrylate	Hydrophobic, narrow molecular weight distribution
Bisomer® BZMA	2495-37-6	Benzyl methacrylate	Hydrophobic, hardness, impact resistance, low viscosity
Bisomer® MPEG350MA	26915-72-0	Methoxy PEG 350 methacrylate	Hydrophilic, polymer flexibility, co-polymerisable surfactant
Bisomer® MPEG550MA	26915-72-0	Methoxy PEG 550 methacrylate	Hydrophilic, polymer flexibility, co-polymerisable surfactant
Bisomer® S10W	26915-72-0	Methoxy PEG 1000 methacrylate	Hydrophilic, polymer flexibility, co-polymerisable surfactant
Bisomer® S20W	26915-72-0	Methoxy PEG 2000 methacrylate	Hydrophilic, polymer flexibility, co-polymerisable surfactant
DI-FUNCTIONAL MONOMERS			
Bisomer® BDDMA	2082-81-7	1,4 Butanediol dimethacrylate	Hydrophobic, hardness, abrasion resistance, low viscosity
Bisomer® TEGDMA	109-16-0	Triethyleneglycol dimethacrylate	Hydrophobic, hardness, impact resistance, low viscosity
Bisomer® PEG200DMA	25852-47-5	Polyethyleneglycol 200 dimethacrylate	Hardness, impact resistance, low viscosity
Bisomer® EP100DMA	122985-55-1	Polyalkyleneglycol dimethacrylate	Hydrophobic/-philic balance, impact strength
Bisomer® EP150DMA	122985-55-1	Polylalkyleneglycol dimethacrylate	Hydrophobic/-philic balance, impact strength

Product List

Product Name	CAS #	Description	Features & Benefits
NEOPENTYL POLYOLS			
DMPA®	4767-03-7	Dimethylolpropionic acid	Compact structure, dual and selective reactivity
TRIMET® TME	77-85-0	Trimethylolethane	Compact structure, high hydroxyl content and reactivity
DMPA® POLYMERIC POLYOLS			
HA-0135	proprietary	Acid functional linear polyol	Polymeric polyol with dual and selective reactivity
HA-0135LV2	proprietary	Acid functional linear polyol	Polymeric polyol with dual and selective reactivity
TRI-REZ® POLYESTER POLYOLS (Linear)			
1030-60	proprietary	Adipate polyester polyol	Non-crystalline UV stable aliphatic polyester
1030-90	proprietary	Adipate polyester polyol	Non-crystalline UV stable aliphatic polyester
1230-60	proprietary	Adipate/ISO polyester polyol	Non-crystalline polyester with good moisture and UV resistance
1230-90	proprietary	Adipate/ISO polyester polyol	Non-crystalline polyester with good moisture and UV resistance
TRI-REZ®POLYESTER POLYOL (Branched)			
1220A-300	proprietary	Adipate/ISO polyester polyol	Non-crystalline branched UV stable polyester
MULTI-FUNCTIONAL AMINO ALCOHOL ADDITIVE			
Bisomer® Amine D700	108-16-7	77% Aqueous dimethylamino hydroxypropane	Aqueous azeotrope, improved dispersion, flow and wetting
AMINE ACTIVATOR FOR ORGANIC PEROXIDE INITIATION			
Bisomer® PTE	103671-44-9	N,N-Bis(2-hydroxyethyl)-para-toluidine	Low toxicity, low odour and ease of handling
DI-FUNCTIONAL ALLYL MONOMER			
Bisomer® DALP	131-17-9	Diallyl Phthalate	Low shrink, plasticizing properties, impact and heat resistance

Product List

Product Name	CAS #	Description	Features & Benefits
ALLYL PAGS			
Bisomer® AA E 210 H	27274-31-3	Allyl alcohol + 3.5 EO	Reactive intermediates mainly for use in the manufacture of silicone polyethers. Silicone polyether applications include antifoams, foam stabilizers, additives for polyurethane, cosmetics and paint additives
Bisomer® AA E 320 H	27274-31-3	Allyl alcohol + 6 EO	
Bisomer® AA E 410 H	27274-31-3	Allyl alcohol + 8 EO	
Bisomer® AA E 450 H	27274-31-3	Allyl alcohol + 9 EO	
Bisomer® AA E 585 H	27274-31-3	Allyl alcohol + 11 EO	
Bisomer® AA 70 750 H	9041-33-2	Allyl alcohol + (11 EO & 4 PO) random co-polymer	
Bisomer® AA 70 1150 H	9041-33-2	Allyl alcohol + (18 EO & 6 PO) random co-polymer	
Bisomer® AA 60 1500 H	9041-33-2	Allyl alcohol + (20 EO & 10 PO) random co-polymer	
Bisomer® AA 43 1968 H	9041-33-2	Allyl alcohol + (20 EO & 20 PO) random co-polymer	
Bisomer® CA 041 ME	27252-80-8	Allyl alcohol + 8 EO with methyl cap	
Bisomer® CA 045 ME	27252-80-8	Allyl alcohol + 9 EO with methyl cap	
Bisomer® CA 125 M60	52232-27-6	Allyl alcohol + (16 EO & 8 PO) random co-polymer with methyl cap	
Bisomer® CA 211 M43	52232-27-6	Allyl alcohol + (20 EO & 20 PO) random co-polymer with methyl cap	

● Highly recommended

Applications

Product Name	Adhesives/Sealants	Industrial Coatings	UV Coatings	Polymer Dispersions	Composite Resins	Concrete Admixtures	Electronics/Electrographics	Inks	Optical	Biomedical	Dental	Rubber Modification	Textiles	Oil Viscosity Modifiers	Water Treatment
HYDROXY MONOMERS															
Bisomer® HEMA	•	•	•	•	•		•		•	•	•		•		
Bisomer® HPMA	•	•	•	•	•		•			•	•		•		
Bisomer® PEA6	•	•	•	•	•			•							
Bisomer® PPA6	•	•	•	•	•			•							
Bisomer® PEM6 LD	•	•		•		•	•			•					
Bisomer® PPM5 LI	•	•		•			•								
Bisomer® PEM63P HD		•		•			•			•					
MONO-FUNCTIONAL MONOMERS															
Bisomer® IDMA		•		•	•									•	
Bisomer® LMA	•	•		•	•		•	•					•	•	
Bisomer® LMA97 SP	•	•		•	•		•	•					•	•	
Bisomer® BZMA	•	•	•	•	•		•	•	•				•		
Bisomer® MPEG350MA	•	•		•		•	•			•		•			•
Bisomer® MPEG550MA	•	•		•		•	•			•					•
Bisomer® S10W		•		•		•				•					•
Bisomer® S20W		•		•		•				•					•
DI-FUNCTIONAL MONOMERS															
Bisomer® BDDMA	•	•	•		•		•				•	•			
Bisomer® TEGDMA	•	•	•	•	•		•				•	•			
Bisomer® PEG200DMA	•	•	•	•	•		•				•	•	•		
Bisomer® EP100DMA	•	•					•								
Bisomer® EP150DMA	•	•					•								

● Highly recommended

Applications

Product Name	Chemical Intermediates	Industrial Coatings	UV Coatings	Polymer Dispersions	Composite Resins	Concrete Admixtures	Electronics/Electrographics	Inks
ALLYL PAGS								
Bisomer® AA E 210 H	●							
Bisomer® AA E 320 H	●							
Bisomer® AA E 410 H	●							
Bisomer® AA E 450 H	●							
Bisomer® AA E 585 H	●							
Bisomer® AA 70 750 H	●							
Bisomer® AA 70 1150 H	●							
Bisomer® AA 60 1500 H	●							
Bisomer® AA 43 1968 H	●							
Bisomer® CA 041 ME	●							
Bisomer® CA 045 ME	●							
Bisomer® CA 125 M60	●							
Bisomer® CA 211 M43	●							

- Highly recommended
- Recommended

Applications & Benefits

Product Name	Alkyds	Polyesters	PUDs	Uralkyds	Si-polyesters	Waterborne Resins	Solvent Borne Resins	UV Resistance	Hydrolysis Resistance	Heat Resistance	Hardness	Corrosion Resistance	Adhesion	TiO_2 Surface Treatment
NEOPENTYL POLYOLS														
DMPA®	•	•	•		•	•			•				•	•
TRIMET® TME	•	•		•	•	•	•	•	•	•	•	•		•

Product Name	Adhesives	Sealants	Exterior Coatings	Interior Coatings	Solvent Free Systems	Low Viscosity Coatings	Reactive Diluents	2K Systems	1K Systems	Corrosion Resistance	Elongation	Tensile Strength	UV Resistance	Heat Resistance
DMPA® POLYMERIC POLYOLS														
HA-0135	•	•	•	•	•	•	•	•	•		●		•	
HA-0135LV2	•	•	•	•	•	•	•	•					•	
TRI-REZ® POLYESTER POLYOLS (Linear)														
1030-60			•	•	•	•	•	•	•	●	•	●	•	
1030-90			•	•	•	•	•	•	•	●	•	●	•	
1230-60			•	•	•	●	•	•	●	•	●	•	•	●
1230-90			•	•	•	•	•	•	●	•	●	•	•	●
TRI-REZ® POLYESTER POLYOL (Branched)														
1220A-300	●	●	•	•	•	•	•	•	•	●		•	•	
MULTI-FUNCTIONAL AMINO ALCOHOL ADDITIVE														
Bisomer® Amine D700	•	•	•	•	•	•			•					
AMINE ACTIVATOR FOR ORGANIC PEROXIDE INITIATION														
Bisomer® PTE	•	•	•	•				•						
DI-FUNCTIONAL ALLYL MONOMER														
Bisomer® DALP	•	•					•	•					•	•

[1] Typical value
[2] Active component
[3] Total polymerisable content

Chemical & Physical Properties

Product Name	Molar Mass[1]	Viscosity[1] @25°C, mPa.s	Inhibitor (MEHQ), ppm/%	Tg[1], °C	Colour, max Pt/Co/ Gardner	Assay, min %	Acid Value, mgKOH/g	Water, max %	Hydroxyl Value, mgKOH/g	Saponification Value, mgKOH/g
HYDROXY MONOMERS										
Bisomer® HEMA	130	8	200-240	55	10	97	1	0.1		
Bisomer® HPMA	144	9	200-300	72	10	97	1	0.1		
Bisomer® PEA6	336	47	0.10-015%	-65	100		0.3	0.3		155-175
Bisomer® PPA6	420	90	200-400	-65	100		0.3	0.15		126-138
Bisomer® PEM6 LD	350	40	500-800	-65	100		0.05	0.5	145-165	
Bisomer® PPM5 LI	376	40	300-500	-65	50		0.3	0.1	145-160	
Bisomer® PEM63P HD	524	71	500-800	-65	100		0.3	0.5	100-120	
MONO-FUNCTIONAL MONOMERS										
Bisomer® IDMA	226	2	75-125	-40	50	97		0.2		
Bisomer® LMA	263	6	75-125	-65	100	97[2]		0.1		
Bisomer® LMA97 SP	254	6	300-500	-65	100	99[3]		0.15		
Bisomer® BZMA	176	2	45-55	54	50	98		0.1		
Bisomer® MPEG350MA	430	18	0.45 -0.55%	-60	3 Gardner			0.5		127-140
Bisomer® MPEG550MA	628	45	0.15 -0.20%	-70				0.5		85-95
Bisomer® S10W	1080	42	750-950		2 Gardner			49-51		23-28
Bisomer® S20W	2080	40	0.22 -0.28%		5 Gardner			48-52		12-16
DI-FUNCTIONAL MONOMERS										
Bisomer® BDDMA	226	5	300-500		100	99[3]		0.1		
Bisomer® TEGDMA	286	10	250-400		100	99[3]		0.2		
Bisomer® PEG200DMA	338	17	300-500		100	99[2]		0.2		
Bisomer® EP100DMA	1114	103	90-120		150			0.5		90-110
Bisomer® EP150DMA	736	50	70-100		150			0.5		140-160

[1] Typical value
[2] Active component
[3] Total polymerisable content

Chemical & Physical Properties

Product Name	Kinemaric Viscosity @40°C, cSt	Density @20°C,kg/m^3	Iodine Value, gI_2/100g	Hydroxyl Value, mgKOH/g	Flash Point, °C	Pour Point, °C
ALLYL PAGS						
Bisomer® AA E 210 H	6	1038	104-132	245-290	>100	-4
Bisomer® AA E 320 H		1057	74-81	170-190		
Bisomer® AA E 410 H	17	1076	60-69	135-150	>175	-1
Bisomer® AA E 450 H	21	1076	49-55	110-125	>180	8
Bisomer® AA E 585 H	31	1090	40-47	93-99	268	8
Bisomer® AA 70 750 H	36	1062	28-33	68-75	>205	-17
Bisomer® AA 70 1150 H			19	45		
Bisomer® AA 60 1500 H	95	1065	15-18	33-44	150	-46
Bisomer® AA 43 1968 H	105	980	11.5-13.6	24-34	256	-44
Bisomer® CA 041 ME	11	1060	57-67	<14	>150	6
Bisomer® CA 045 ME	13	1060	50-60	<14	>150	12
Bisomer® CA 125 M60	48	1052	18-22	<5	>150	-38
Bisomer® CA 211 M43	107	1040	11-13	<5	>200	-46

Chemical & Physical Properties

Product Name	Acid Value, mgKOH/g	Hydroxyl Value, mgKOH/g	Acid Equivalent wt.	Hydroxyl Equivalent wt.	Molecular Weight, g/mole	Colour, APHA	Non Volatile, %	Density @25°C, g/l	Appearance	Moisture, %	Viscosity @25°C, Poise
NEOPENTYL POLYOLS											
DMPA®	398 min	790 min	141 max	71 max	134.15	250 max			Solid	0.3 max	
TRIMET® TME		1352 min		41.5 max	120.17	250 max			Solid	0.3 max	
DMPA® POLYMERIC POLYOLS											
HA-0135	100-115	100-115	522	522	1100	250 max	98 min	1200	Liquid	0.5 max	4000-8000
HA-0135LV2	80-95	330- 345	680	166		250 max		1180	Liquid	0.5 max	150- 250
TRI-REZ® POLYESTER POLYOLS (Linear)											
1030-60	0.8 max	57-63		935	1900	250 max	98 min	1100	Liquid	0.05 max	40-60
1030-90	0.8 max	87-93		623	1250	250 max	98 min	1100	Liquid	0.05 max	15-30
1230-60	0.8 max	57-63		935	1900	250 max	98 min	1115	Liquid	0.05 max	300- 500
1230-90	0.8 max	87-93		623	1250	250 max	98 min	1115	Liquid	0.05 max	100- 200
TRI-REZ® POLYESTER POLYOL (Branched)											
1220A-300	4.0 max	280-300		193	750	250 max	95 min	1140	Liquid	0.2 max	1000-2500

[1] Typical value
[2] Active component
[3] Measured @ 20˚C
[4] Active Monomer
[5] pH of DMAP 100g/litre aqueous @20˚C
[6] % Ester
Test methods available on request

Chemical & Physical Properties

Product Name	Molar Mass[1]	Viscosity[1], mPa.s	Inhibitor (MEHQ), ppm/%	Boiling Point, ˚C	Colour, max Pt/Co/Gardner	Assay, min %	Amine Value, mgKOH/g	Water, max %	pH	Solubility		
										Water	Acetone	Methanol
AMINE ACTIVATOR FOR ORGANIC PEROXIDE INITIATION												
Bisomer® PTE	217				15 Gardner		250- 264					
MULTI-FUNCTIONAL AMINO ALCOHOL ADDITIVE												
Bisomer® Amine D700	103[2]	3[3]		97 (azeo-trope)	200	74- 77.5[4]		22-24	12.1[5]	Fully miscible	Fully miscible	Fully miscible
DI-FUNCTIONAL ALLYL MONOMER												
Bisomer® DALP	246				246	99[6]						

Chemical Inventory Registrations

Product Name	REACH* EU	TSCA USA	DSL Canada	PICCS Philipp	AICS Australia	KECI Korea	ENCS Japan	IESCS China
HYDROXY MONOMERS								
Bisomer® HEMA	•	•	•	•	•	•	•	•
Bisomer® HPMA	•	•	•	•	•	•	•	•
Bisomer® PEA6	•	•	NDSL			•	•	•
Bisomer® PPA6	•	•	NDSL		•	•	•	•
Bisomer® PEM6 LD	•	•	NDSL		•	•	•	•
Bisomer® PPM5 LI	•	•	•	•	•	•	•	•
Bisomer® PEM63P HD	•							•
MONO-FUNCTIONAL MONOMERS								
Bisomer® IDMA	•		•	•	•	•	•	•
Bisomer® LMA	•	•	•	•	•	•	•	•
Bisomer® LMA97 SP	•	•	•	•	•	•	•	•
Bisomer® BZMA	•	•	•	•	•	•	•	•
Bisomer® MPEG350MA	•	•	NDSL	•	•	•	•	•
Bisomer® MPEG550MA	•	•	NDSL	•	•	•	•	•
Bisomer® S10W	•	•	NDSL	•	•	•	•	•
Bisomer® S20W	•	•	NDSL	•	•	•	•	•
DI-FUNCTIONAL MONOMERS								
Bisomer® BDDMA	•	•	•	•	•	•	•	•
Bisomer® TEGDMA	•	•	•	•	•	•	•	•
Bisomer® PEG200DMA	•	•	•	•	•	•	•	•
Bisomer® EP100DMA	•	•					•	•
Bisomer® EP150DMA	•	•					•	•

Chemical Inventory Registrations

Product Name	REACH* EU	TSCA USA	DSL Canada	PICCS Philipp	AICS Australia	KECI Korea	ENCS Japan	IESCS China
ALLYL PAGS								
Bisomer® AA E 210 H	•	•	•	•	•	•	•	•
Bisomer® AA E 410 H	•	•	•	•	•	•	•	•
Bisomer® AA E 450 H	•	•	•	•	•	•	•	•
Bisomer® AA E 585 H	•	•	•	•	•	•	•	•
Bisomer® AA 70 750 H	•	•	•	•	•	•	•	•
Bisomer® AA 70 1150 H	•	•	•	•	•	•	•	•
Bisomer® AA 60 1500 H	•	•	•	•	•	•	•	•
Bisomer® AA 43 1968 H	•	•	•	•	•	•	•	•
Bisomer® CA 041 ME	•	•	•	•	•	•	•	•
Bisomer® CA 045 ME	•	•	•	•	•	•	•	•
Bisomer® CA 125 M60	•	•	•	•	•	•	•	•
Bisomer® CA 211 M43	•	•	•	•	•	•	•	•

• Listed or compliant

* The products listed in this catalogue as supplied by GEO Specialty Chemicals in the EU/EEA are in compliance with the requirements of REACH, i.e. relevant substances are either registered, shall be registered by the required deadline, or are exempt from registration.
We strongly recommend that you contact GEO prior to purchase for any uses not covered by the Safety Data Sheet and/or Technical Data Sheet.

Chemical Inventory Registrations

Product Name	REACH* EU	TSCA USA	DSL Canada	PICCS Philipp	AICS Australia	KECI Korea	ENCS Japan	IESCS China
NEOPENTYL POLYOLS								
DMPA®	•	•	•	•	•	•	•	•
TRIMET® TME	•	•	•	•	•	•	•	•
DMPA® POLYMERIC POLYOLS								
HA-0135	•	•						
HA-0135LV2	•	•						
TRI-REZ® POLYESTER POLYOLS (Linear)								
1030-60	•	•	NDSL	•		•	•	•
1030-90	•	•	NDSL	•		•	•	•
1230-60	•	•					•	•
1230-90	•	•					•	•
TRI-REZ® POLYESTER POLYOL (Branched)								
1220A-300	•	•				•	•	
MULTI-FUNCTIONAL AMINO ALCOHOL ADDITIVE								
Bisomer® Amine D700	•	•	•	•	•	•	•	•
AMINE ACTIVATOR FOR ORGANIC PEROXIDE INITIATION								
Bisomer® PTE	•	•			•	•	•	•
DI-FUNCTIONAL ALLYL MONOMER								
Bisomer® DALP	•	•	•	•	•	•	•	•

• Listed or compliant

* The products listed in this catalogue as supplied by GEO Specialty Chemicals in the EU/EEA are in compliance with the requirements of REACH, i.e. relevant substances are either registered, shall be registered by the required deadline, or are exempt from registration.
We strongly recommend that you contact GEO prior to purchase for any uses not covered by the Safety Data Sheet and/or Technical Data Sheet.

Classification & Labelling

Labelling According to CLP Regulation EC No. 1272/2008

Product Name	GHS Pictogram	Hazard Statements	Precautionary Statements
HYDROXY MONOMERS			
Bisomer® HEMA	GHS07	H315, H317, H319	P262, P280, P303+P361+P353, P305+P351+P338
Bisomer® HPMA	GHS07	H317, H319	P262, P280, P303+P361+P353, P305+P351+P338
Bisomer® PEA6	GHS07	H315, H317, H319	P262, P280, P303+P361+P353, P305+P351+P338
Bisomer® PPA6	GHS07 GHS09	H317, H411	P262, P280, P302+P352, P273
Bisomer® PEM6 LD	GHS07	H317	P262, P280, P302+P352
Bisomer® PPM5 LI	None	H412	P273
Bisomer® PEM63P HD	GHS07 GHS08	H319, H335, H315, H317, H351	P273
MONO-FUNCTIONAL MONOMERS			
Bisomer® IDMA	GHS09	H410	P273
Bisomer® LMA	None	None	None
Bisomer® LMA97 SP	GHS07 GHS09	H315, H319, H335, H410	P261, P262, P273, P280, P303+P361+P353, P305+P351+P338
Bisomer® BZMA	GHS07	H315, H317, H319, H335	P261, P262, P280, P303+P361+P353, P305+P351+P338
Bisomer® MPEG350MA	None	None	None
Bisomer® MPEG550MA	None	None	None
Bisomer® S10W	None	None	None
Bisomer® S20W	None	None	None

Classification & Labelling

Labelling According to CLP Regulation EC No. 1272/2008

Product Name	GHS Pictogram	Hazard Statements	Precautionary Statements
DI-FUNCTIONAL MONOMERS			
Bisomer® BDDMA	GHS07	H317	P280, P302+P352
Bisomer® TEGDMA	GHS07	H317	P280, P302+P352
Bisomer® PEG200DMA	None	None	None
Bisomer® EP100DMA	GHS07	H319, H335, H315	P261, P262, P280, P303+P361+P353, P305+P351+P338
Bisomer® EP150DMA	GHS07	H319, H335, H315	P261, P262, P280, P303+P361+P353, P305+P351+P338
ALLYL PAGS			
Bisomer® AA E 210 H	None	None	None
Bisomer® AA E 320 H	None	None	None
Bisomer® AA E 410 H	None	None	None
Bisomer® AA E 450 H	None	None	None
Bisomer® AA E 585 H	None	None	None
Bisomer® AA 70 750 H	None	None	None
Bisomer® AA 70 1150 H	None	None	None
Bisomer® AA 60 1500 H	None	None	None
Bisomer® AA 43 1968 H	None	None	None
Bisomer® CA 041 ME	None	None	None
Bisomer® CA 045 ME	None	None	None
Bisomer® CA 125 M60	None	None	None
Bisomer® CA 211 M43	None	None	None

Classification & Labelling

Labelling According to CLP Regulation EC No. 1272/2008

Product Name	GHS Pictogram	Hazard Statements	Precautionary Statements
NEOPENTYL POLYOLS			
DMPA®	GHS07	H319, H335	P261, P280, P304+P340, P305+P351+P338, P312, P337+P313
TRIMET® TME	None	None	None
DMPA® POLYMERIC POLYOLS			
HA-0135	None	None	None
HA-0135LV2	None	None	None
TRI-REZ® POLYESTER POLYOLS (Linear)			
1030-60	None	None	None
1030-90	None	None	None
1230-60	None	None	None
1230-90	None	None	None
TRI-REZ® POLYESTER POLYOL (Branched)			
1220A-300	None	None	None
MULTI-FUNCTIONAL AMINO ALCOHOL ADDITIVE			
Bisomer® Amine D700	GHS02, GHS05, GHS06	H226, H302, H312, H314, H331	P233, P210, P262, P280, P301+P330+P331, P303+P361+P353, P305+P351+P338
AMINE ACTIVATOR FOR ORGANIC PEROXIDE INITIATION			
Bisomer® PTE	GHS05, GHS07	H302, H315, H317, H318, H412	P280, P301+P312, P302+P352, P305+P351+P338, P332+P313
DI-FUNCTIONAL ALLYL MONOMER			
Bisomer® DALP	GHS07, GHS09	H302, H317, H332, H400, H410	P264, P270, P273, P280, P302+P352, P301+P310, P312, P501 and P304+P340

Classification & Labelling Legend

Reference	Description
HAZARD PHRASES	
H226	Flammable liquid and vapour
H302	Harmful if swallowed
H312	Harmful if in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Classification & Labelling Legend

Reference	Description
PRECAUTIONARY STATEMENTS	
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat/sparks/open flames/hot surfaces - No smoking
P233	Keep container tightly closed
P261	Avoid breathing dust/fumes/gas/mist/vapours/spray
P262	Do not get in eyes, on skin or on clothing
P264	Wash face, hands and any exposed skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P310	IF SWALLOWED: immediately call a POISON CENTER or doctor/physician
P304+P340	IF INHALED: remove to fresh air and keep at rest in a position comfortable for breathing
P301+P312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P302+P352	IF ON SKIN: wash with plenty of soap and water
P305+P351+P338	IF IN EYES: rinse continuously with water for several minutes. Remove contact lenses if easy to do. Continue rinsing
P312	Call a POISON CENTER or doctor/physician if you feel unwell
P303+P361+P353	IF ON SKIN (or hair): remove/take off all contaminated clothing immediately. Rinse skin with water / shower
P332+P313	If skin irritation occurs: get medical advice/attention
P337+P313	If eye irritation persists: get medical advice/attention
P362+P364	Take off contaminated clothing and wash it before reuse
P405	Store locked up
P501	Dispose of contents/container at an approved waste disposal plant

Classification & Labelling Legend

GHS02

GHS05

GHS06

GHS07

GHS08

GHS09

Food Packaging Regulations

Product Name	Swiss Ordinance	EU10/2011*	FCN Listing
Bisomer® HEMA	Y (Part A)	✔	
Bisomer® HPMA	Y (Part B)		
Bisomer® PEA6	C		
Bisomer® PPA6	Y (Part B)		
Bisomer® PEM6 LD	Y (Part B)		
Bisomer® PPM5 LI	Y (Part B)		
Bisomer® PEM63 HD	Y (Part B)		
Bisomer® IDMA	Y (Part B)		
Bisomer® LMA	Y (Part B)		
Bisomer® LMA97 SP	Y (Part B)		
Bisomer® BZMA	Y (Part A)	✔	
Bisomer® MPEG350MA	Y (Part B)		
Bisomer® MPEG550MA	Y (Part B)		
Bisomer® S10W	Y (Part B)		
Bisomer® S20W	Y (Part B)		
Bisomer® BDDMA	Y (Part A)		
Bisomer® TEGDMA	Y (Part A)		
Bisomer® PEG200DMA	Y (Part B)		
Bisomer® EP100DMA	C		
Bisomer® EP150DMA	C		
Bisomer® Amine D700	Y (Part B)		
Bisomer® PTE	C		
Bisomer® DALP	Y (Part A)		
DMPA®	Y (Part A)		FCN1061
TRIMET® TME	Y (Part B)		

C = manufactured from listed components
Y = product listed
* EU Regulation 10/2011 on plastic materials and articles intended to come into contact with food.

BfR Recommendations

Product Name	XII	XIV	XXII	XXXIV	XXXVI
Bisomer® HEMA		Y	Y		Y
Bisomer® PEA6					Y
Bisomer® LMA		Y			
Bisomer® LMA97 SP		Y			
Bisomer® BZMA		Y	Y		
Bisomer® MPEG350MA					Y
Bisomer® MPEG550MA					Y
Bisomer® S10W					Y
Bisomer® S20W					Y
Bisomer® BDDMA		Y	Y		
Bisomer® PTE	Y				
Bisomer® DALP				Y	

Y = product listed

BfR Recommendations:
XII. Unsaturated Polyester Resins
XIV. Plastics Dispersions
XXII. Polymers Based on Esters of Acrylic and Methacrylic Acids, their Copolymers, and mixtures of these with other Polymers
XXXIV. Vinylidene Chloride Copolymers with a Predominant Content of Polyvinylidene Chloride
XXXVI. Paper and Board for Food Contact

FDA 21 CFR Approvals

Product Name	175.105	175.300	175.320	175.360	176.170	176.180	176.210	177.1010	177.1390	177.2420	178.3710	178.3725
Bisomer® HEMA	Y	P				P		Y				
Bisomer® HPMA	Y	P						Y				
Bisomer® LMA					P		P				P	
Bisomer® LMA97 SP					P		P				P	
Bisomer® DALP	Y				Y	Y						
DMPA®	Y				Y							Y
TRIMET® TME		Y	Y			Y	Y		Y	Y		Y

Y = product listed
P = listed as a component of a polymer

1 75.1 05 Adhesives
1 75.300 Resinous and polymeric coatings
1 75.320 Resinous and polymeric coatings for polyolefin films
1 75.360 Vinylidene chloride co-polymer coatings for nylon film
1 76.1 70 Components of paper and paperboard in contact with aqueous and fatty foods
1 76.1 80 Components of paper and paperboard in contact with dry food
1 76.21 0 Defoaming agents used in the manufacture of paper and paperboard
1 77.1 01 0 Acrylic and modified acrylic plastics, semi-rigid and rigid
1 77.1 390 Laminate structures for use at temperatures of 250˚F and above
1 77 .2420 Polyester resins, cross-linked
1 78.371 0 Petroleum wax
1 78.3725 Pigment dispersants

Kosher / Halal Certifications

Product Name	Kosher (Pareve Passover)	Halal
Bisomer® Amine D700	✔	
Bisomer® PEA6	✔	
Bisomer® PEM6 LD	✔	
Bisomer® PEM63P HD	✔	
Bisomer® PPA6	✔	
Bisomer® PPM5 LI	✔	
Bisomer® PTE	✔	
Bisomer® AA E 210 H	✔	✔
Bisomer® AA E 320 H	✔	✔
Bisomer® AA E 410 H	✔	✔
Bisomer® AA E 450 H	✔	✔
Bisomer® AA 70 750 H	✔	✔
Bisomer® AA 70 1150 H	✔*	✔*
Bisomer® AA 60 1500 H	✔	✔
Bisomer® AA 43 1968 H	✔*	✔*

✔* Not listed in current certificate but expected to be included in the next official update

Notes

Notes

Disclaimer:
All information and data, including the formulations and procedures discussed herein, are believed to be correct. However, this should not be accepted as a guarantee of their accuracy, and confirming tests should be run in your laboratory or plant. No statement should be construed as a recommendation for any use which would violate any patent rights. Sales of all products are pursuant to terms and conditions included in GEO

Specialty Chemicals sales documents.
Nothing contained therein shall constitute a guarantee or warranty with respect to the products described or their use. Safety information regarding these products is contained in their

Safety Data Sheets.
Users of these products are urged to review and use this information.

Bisomer®, DMPA®, TRIMET® and TRI-REZ® are registered trademarks of GEO Specialty Chemicals, Inc.

www.geosc.com

CHEMICAL INTERMEDIATES

Talk to us about your challenges and see how we can overcome them together.

EUROPE
Charleston Road, Hardley, Hythe
Southampton, Hampshire SO45 3ZG UK
Call +44 2380 245 437

NORTH AMERICA
300 Brookside Avenue, Building #23, Suite 100
Ambler, PA 19002 USA

Call +1 215 773 9280
Toll Free 888 519 3883

impag

IMPAG AG • Räffelstrasse 12
8045 Zürich • Switzerland
T +41 43 499 25 00 • info@impag.ch

GEO®
SPECIALTY CHEMICALS

A division of CPS Performance Materials

12-2019