

Appendix A - Contrast Media Specifications

Product	Chemical Structure	Anion	Cation	% Salt Concentration	% Iodine Concentration	Iodine+ (mg/ml)	Viscosity+ 25° C (cps)	Viscosity+ 37° C (cps)	Osmolality (mOsm/kg H ₂ O)
INTRAVASCULAR									
Omnipaque [®] 140 (GE Healthcare)	Iohexol	Nonionic	Nonionic	None	14	140	2.3*	1.5	322
Conray [™] 30 (Covidien)	Ionic	Iothalamate	Meglumine	30	14.1	141	2	1.5	600
Ultravist [®] 150 (Bayer HealthCare)	Iopromide	Nonionic	Nonionic	<0.1	15	150	2.3*	1.5	328
Optiray [™] 160 (Covidien)	Ioversol 34%	Nonionic	Nonionic	None	16	160	2.7	1.9	355
Isovue [®] -200 (Bracco)	Iopamidol 40.8%	Nonionic	Nonionic	None	20	200	3.3*	2.0	413
Conray [™] 43 (Covidien)	Ionic	Iothalamate	Meglumine	43	20.2	202	3	2	1000
Omnipaque [®] 240 (GE Healthcare)	Iohexol 51.8%	Nonionic	Nonionic	None	24	240	5.8*	3.4	520
Optiray [™] 240 (Covidien)	Ioversol 51%	Nonionic	Nonionic	None	24	240	4.6	3.0	502
Ultravist [®] 240 (Bayer Healthcare)	Iopromide	Nonionic	Nonionic	<0.1	24	240	4.9*	2.8	483
Isovue [®] -250 (Bracco)	Iopamidol 51%	Nonionic	Nonionic	None	25	250	5.1*	3.0	524
Visipaque [®] 270 (GE Healthcare)	Iodixanol	Nonionic	Nonionic	None	27	270	12.7*	6.3	290
Conray [™] (Covidien)	Ionic	Iothalamate	Meglumine	60	28.2	282	6	4	1400
Isovue [®] -300 (Bracco)	Iopamidol 61.2%	Nonionic	Nonionic	None	30	300	8.8*	4.7	616
Omnipaque [®] -300 (GE Healthcare)	Iohexol 64.7%	Nonionic	Nonionic	None	30	300	11.8*	6.3	672
Optiray [™] 300 (Covidien)	Ioversol 64%	Nonionic	Nonionic	None	30	300	8.2	5.5	651
Oxilan [®] 300 (Guerbet)	Ioxilan 62.3%	Nonionic	Nonionic	None	30	300	9.4*	5.1	585
Ultravist [®] 300 (Bayer Healthcare)	Iopromide	Nonionic	Nonionic	<0.1	30	300	9.2*	4.9	607
Hexabrix [™] (Covidien)	Ionic	Ioxaglate	Meglumine Sodium	39.3 19.6	32	320	15.7*	7.5	≈600
Optiray [™] 320 (Covidien)	Ioversol 68%	Nonionic	Nonionic	None	32	320	9.9	5.8	702
Visipaque [®] -320 (GE Healthcare)	Iodixanol	Nonionic	Nonionic	None	32	320	26.6	11.8	290
Optiray [™] 350 (Covidien)	Ioversol 74%	Nonionic	Nonionic	None	35	350	14.3	9.0	792

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INTRAVASCULAR									
Omnipaque® -350 (GE Healthcare)	Iohexol 75.5%	Nonionic	Nonionic	None	35	350	20.4*	10.4	844
Oxilan® 350 (Guerbet)	Ioxilan 72.7%	Nonionic	Nonionic	None	35	350	16.3*	8.1	695
Isovue® -370 (Bracco)	Iopamidol 75.5%	Nonionic	Nonionic	None	37	370	20.9*	9.4	796
MD-76™ R (Covidien)	Ionic	Diatrizoate	Meglumine Sodium	66 10	37	370	16.4	10.5	1551
Ultravist® 370 (Bayer Healthcare)	Iopromide	Nonionic	Nonionic	<0.1	37	370	22.0*	10.0	774
Cholografin® (Bracco)	Ionic	Iodipamide	Meglumine	52	25.7	257	6.6	5.6	664
GASTROINTESTINAL – Oral Contrast									
Gastrografin® (Bracco)	Ionic	Diatrizoate	Meglumine Sodium	66 10	37	370		8.4	1940
MD-Gastroview™ (Covidien)	Ionic	Diatrizoate	Meglumine Sodium	66 10	37	370			2000
Omnipaque® 180 (GE Healthcare)	Iohexol	Nonionic	None	18	18	180	3.1*	2.0	331
Omnipaque® 240 (GE Healthcare)	Iohexol	Nonionic	None	24	24	240	5.8*	3.4	520
Omnipaque® 300 (GE Healthcare)	Iohexol	Nonionic	None	30	30	300	11.8*	6.3	672
Omnipaque® 350 (GE Healthcare)	Iohexol	Nonionic	None	35	35	350	20.4*	10.4	844
URORADIOLOGICAL									
Cystografin® (Bracco)	Ionic	Diatrizoate	Meglumine	30	14.1	141	2.0	1.5	556
Cystografin® Dilute (Bracco)	Ionic	Diatrizoate	Meglumine	18	8.5	85	1.4	1.1	349
Cysto-Conray™ II (Covidien)	Ionic	Iothalamate	Meglumine	17.2	8.1	81	(Instill for retrograde cystography and cystourethrography)		
Conray™ 43 (Covidien)	Ionic	Iothalamate	Meglumine	43	20.2	202	3	2	1000
Omnipaque® 240 (GE Healthcare)	Nonionic	Nonionic	None	24	240		5.8*	3.4	520
Omnipaque® 300 (GE Healthcare)	Iohexol	Nonionic	None	30	30	300	11.8*	6.3	672

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Omnipaque® 350 (GE Healthcare)	Iohexol	Nonionic	None	35	35	350	20.4*	10.4	844
Visipaque® 270 (GE Healthcare)	Iodixanol	Nonionic	None	27	27	270	12.7*	6.3	290
URORADIOLOGICAL									
Visipaque 320 (GE Healthcare)	Iodixanol	Nonionic	None	32	32	320	26.6	11.8	290
INTRATHECAL									
Omnipaque* 180 (GE Healthcare)	Iohexol	Nonionic	Nonionic	None	18	180	3.1*	2.0	408
Omnipaque® 240 (GE Healthcare)	Iohexol	Nonionic	None	24	24	240	5.8*	3.4	520
Omnipaque® 300 (GE Healthcare)	Iohexol	Nonionic	None	30	30	300	11.8*	6.3	672
Isovue-M® 200 (Bracco)	Iopamidol	Nonionic	Nonionic	None	20	200	3.3*	2.0	413
Isovue-M® 300	Iopamidol	Nonionic	Nonionic	None	30	300	8.8*	4.7	616
BODY CAVITY									
Omnipaque* 180 (GE Healthcare)	Iohexol	Nonionic	None	None	18	180	3.1*	2.0	408
Omnipaque® 240 (GE Healthcare)	Iohexol	Nonionic	None	24	24	240	5.8*	3.4	520
Omnipaque® 300 (GE Healthcare)	Iohexol	Nonionic	None	30	30	300	11.8*	6.3	672
Omnipaque® 350 (GE Healthcare)	Iohexol	Nonionic	None	35	35	350	20.4*	10.4	844
MR CONTRAST MEDIA									
Product	Chemical Structure	Anion	Cation	Viscosity + 25° C (cps)	Viscosity+ 37° C (cps)	Osmolality (mOsm/kg H ₂ O)			
Magnevist® (Bayer Healthcare)	Ionic Linear	Gadopentetate	Dimeglumine	4.9*	2.9	1960			
Prohance® (Bracco)	Nonionic GD-HP-DOTA Gadoteridol			2.0*	1.3	630			
Multihance® (Bracco)	Ionic Linear	Gadobenate	Dimeglumine	9.2*	5.3	1970			
Omniscan® (GE Healthcare)	Gd-DTPA-BMA Linear	Nonionic		2.0	1.4	789			

Product	Chemical Structure	Anion	Cation	Viscosity + 25° C (cps)	Viscosity+ 37° C (cps)	Osmolality (mOsm/kg H ₂ O)		
Optimark™ (Covidien)	Nonionic Gd-DTPA-BMEA Gadoversetamide	None	None	2.8**	2.0	1110		
EOVIST® (Bayer Healthcare)	Ionic Linear	Gadoxetate	Disodium	n/a	1.19	688		
Gastromark™ (Covidien) Oral Suspension	Nonionic Ferrous-ferric oxide ferumoxsil	None	None					

+ Data from product package inserts, product brochures, or technical information services.

* Measured at 20° C.

** Data on file with Covidien *** Hexabrix is licensed by a registered trademark of Guerbet, S.A. and sold by Covidien in the U.S.

o Viscosities of most products intended for oral administration are not reported by manufacturers.