

 Nucleus Biologics	<h2>Customer Description/ Part Name</h2>	Document #: 00-SPEC-XXX-XXX
		Revision:
		Effective Date: See iGMP
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Owner Process: 19 - Custom FP Mfg.	Doc Owner: SVP of Operations	CR#:
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Product Material Specification										
Confidential Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, what is the customer code:									
Special Designation	Animal Source <input type="checkbox"/>	Antibiotic <input type="checkbox"/>	Steroid <input type="checkbox"/>	N/A <input type="checkbox"/>						
Nucleus Biologics Description										
Final Product Part Number										
Manufacturer										
Unit of Measure (UOM)										
Expiration Date										
Storage Requirements Prior to QC Testing										
Storage Requirements										
Shipping Requirements										
Packaging	1.00000 ± 0.00500 L in 1.00000 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Part Number</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>251</td> <td>PET Sterile Media Bottle with Tamper-Evident cap PTC1000S-A</td> </tr> <tr> <td>1022</td> <td>PET Corning Tamper Evident btl 1000mL, Fisher, 07-201-428</td> </tr> </tbody> </table>				Part Number	Description	251	PET Sterile Media Bottle with Tamper-Evident cap PTC1000S-A	1022	PET Corning Tamper Evident btl 1000mL, Fisher, 07-201-428
Part Number	Description									
251	PET Sterile Media Bottle with Tamper-Evident cap PTC1000S-A									
1022	PET Corning Tamper Evident btl 1000mL, Fisher, 07-201-428									
Documentation										
Quality Control Testing Requirements										
Ingredients per Liter	Abbreviations: ACF=Animal Component Free BP= British Pharmacopeia ChP= China Pharmacopeia EP= European Union Pharmacopeia FCC=Food Chemical Codex JP= Japan Pharmacopeia NA= not available NF-National Formulary QS = Quantity Sufficient USP = United States Pharmacopeia Powder Components:									



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Part Number	Part Name	CAS#	Grade/Purity	Concentration (g/L)
352	L-Arginine HCL	1119-34-2	EP, JP, USP	0.2107000000
761 765 840	L-Tyrosine Disodium Salt Dihy L-Tyrosine Disodium Salt Dihy L-Tyrosine Disodium Salt Dihydrate	122666-87-9	98% ACF 99%	0.0077800000
366	L-Proline	147-85-3	EP, JP, USP	0.0345300000
1153 365	Glycine-2 Glycine	56-40-6	98.5 to 101.0 % EP, JP, USP	0.0075100000
349	L-Alanine	56-41-7	EP, JP, USP	0.0089100000
367	L-Serine	56-45-1	EP, JP, USP	0.0105100000
364 724 824	L-Aspartic Acid L-Aspartic Acid-2 non-animal source L-Aspartic Acid-3	56-84-8	EP, JP, USP EP, JP, USP USP	0.0133000000
344	L-Glutamine Powder	56-85-9	DAB, JP, USP	0.1462000000
581 353 472 535 545 728	L-Glutamic Acid-5 L-Glutamic Acid L-Glutamic Acid-2 L-Glutamic Acid-3 L-Glutamic Acid-4 L-glutamic acid-6 non-animal source	56-86-0	EP, JP, USP EP 99.0% BP, EP, USP FCC EP	0.0147000000
486 632	L-Asparagine Monohydrate L-Asparagine Monohydrate-2	5794-13-8	99.0% EP, NF	0.0150100000
355	L-Histidine HCL H2O	5934-29-2	EP, JP	0.0209600000
357	L-Leucine	61-90-5	EP, JP, USP	0.0131200000
360	L-Phenylalanine	63-91-2	EP, JP, USP	0.0049600000
359	L-Methionine	63-68-3	EP, JP, USP	0.0044800000
358 822 823	L-Lysine HCL L-Lysine HCL-2 L-Lysine HCL-3	657-27-2	EP, JP, USP BP, EP, JP, USP BP, EP, FCC, JP, USP	0.0365400000
363 721	L-Cysteine HCL H2O L-Cysteine HCL H2O-2	7048-04-6	EP, FCC, USP EP, USP	0.0351200000
371	L-Valine	72-18-4	EP, JP, USP	0.0117100000
368 825	L-Threonine L-Threonine-2	72-19-5	EP, JP, USP JP, USP	0.0119100000
369 501 826	L-Tryptophan L-Tryptophan-2 L-Tryptophan-3	73-22-3	EP, JP, USP USP BP, EP, JP, USP	0.0020400000
356	L-Isoleucine	73-32-5	EP, JP, USP	0.0039400000
555 881 1331	Sodium Bicarbonate Sodium Bicarbonate-2 Sodium Bicarbonate-3	144-55-8	BP, EP, JP, USP BP, EP, JP, USP =99.5%	1.1760000000
550	Calcium Chloride Anhydrous	10043-52-4	FCC	0.0332200000
485 1268	Zinc Sulfate Heptahydrate Zinc Sulfate Heptahydrate-2	7446-20-0	USP USP	0.0008600000
554	Potassium Chloride	7477-40-7	BP, EP, JP, USP	0.2236500000



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340 556	Sodium Chloride Powder Sodium Chloride	7647- 14-5	99.5% BP, EP, JP, USP	7.599000000
750	Sodium Phosphate Dibasic Anhy	7558- 79-4	USP	0.142040000
747 757	Cupric Sulfate Pentahydrate Copper(II) Sulfate Pentah	7758- 99-8	USP ACS	0.0000025000
477 729 829 857 858	Iron(II) Sulfate Heptahydrate Iron(II) Sulfate Heptahydrate-2 Iron(II) Sulfate Heptahydrate-3 Iron(II) sulfate heptahydrate-4 Iron(II) sulfate heptahydrate-5	7782- 63-0	ACS ACS, NF, USP BP, EP, FCC, USP BP, EP, FCC, USP USP	0.000830000
553	Magnesium Chloride Anhydrous	7786- 30-3	98.0%	0.057220000
496 502 539	Thymidine Thymidine-2 Thymidine-3	50-89-5	N/A 99% 99%	0.000730000
495 794	DL-Thioctic Acid Lipoic acid	1077- 28-7	99% 99%	0.000210000
494 651 653	Pyruvic Acid Sodium Salt Pyruvic Acid Sodium Salt 2 Sodium Pyruvate	113-24- 6	99% 99.0% 99%	0.110000000
493 743 1422 1423	Putrescine Dihydrochloride Putrescine dihydrochloride-2 Putrescine dihydrochloride-3 Putrescine dihydrochloride-4	333-93- 7	98% 98% 97% 97%	0.000160000
730 583	Phenol Red sodium salt-2 Phenol Red Sodium Salt	34487- 61-1	ACS ACS	0.001300000
490 534 577	D-Glucose D-Glucose-2 D-Glucose-3	50-99-7	ACS, NF, USP BP, EP, JP, USP BP, EP, JP, USP	1.801600000
659 492 538	Linoleic Acid-3 Linoleic Acid Linoleic Acid-2	60-33-3	99% 99% 99%	0.000090000
				0.005400000
460	D-Calcium Pantothenate	137-08- 6	USP	0.000240000
465 608	Pyridoxine Hydrochloride Pyridoxine Hydrochloride-2	58-56-0	FCC USP	0.000060000
644 814	Biotin D-Biotin	58-85-5	99% USP	0.0000073300
461	Folic Acid	59-30-3	USP	0.001300000
467 833 1501	Thiamine Hydrochloride Vitamin B1 Thiamine	67-03-8	FCC USP USP	0.000340000



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		hydrochloride-2			
487	719	Choline Chloride	67-48-1	USP	0.0139600000
		Choline chloride-2 synthetic		99.0%	
818	489	Vitamin B12-3	68-19-9	BP, EP, USP	0.0013570000
	732	Vitamin B12		98%	
		Vitamin B12-2		USP	
466	819	Riboflavin	83-88-5	FCC	0.0000400000
	830	Vitamin B2		USP	
		Vitamin B2-2		USP	
462	884	myo-Inositol	87-89-8	FCC	0.0180200000
		myo-Inositol-2		EP, FCC, NF	
463		Niacinamide	98-92-0	USP	0.0000400000
Total weight of dry components:					11.8016068300 g/L
Liquid Components:					
Part Number	Part Name	CAS#	Grade/Purity	Concentration (mL/L)	
Total volume of liquid components:					0.0000000000 mL/L
Preferred Filter Information (Pore Size and Material)					
Retain Information					



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