

MEDISCA[®] NETWORK INC. TECHNICAL SUPPORT SERVICES FORMULATION CHEMISTRY DEPARTMENT TOLL-FREE: 866-333-7811 TELEPHONE: 514-905-5096 FAX: 514-905-5097 <u>technicalservices@medisca.net</u>

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Suggested Formula Gentamicin S	Sulfate 169 mg/ mL Intramuscular, Intravenous Injection (Solution, 100 mL)	FIN	F 000 942v2
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<u>NOTE</u>: Gentamicin Sulfate 169 mg/mL is equivalent to Gentamicin 100 mg/mL

SUGGESTED FORMULATION

Ingredient Listing	Qty.	Unit	NDC #	Supplier	Lot Number	Expiry Date
Gentamicin Sulfate, USP	16.900	g				
Benzyl Alcohol, NF	1.0	mL		\bigotimes		
Sterile Water For Injection, USP	80.0	mL	Y			
Sterile Water For Injection, USP	q.s. to 100.0	mL				
			D OR			



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SPI		PARATORY CONSI	DERATIONS					
	<u>ingreatent-c</u>	peeme momation						
	Light sensitive (protect from light whenever possible): Benzyl Alcohol							
	Hygrosc	opic (protect from moi	sture whenever possible):	Gentamicin Sulfate				
	Narrow	Therapeutic Index:		Gentamicin Sulfate				
	Suggested P	reparatory Guidelines		CEC.				
] Non-Sterile Preparat	ion Sterile Preparation					
		ocessing Error / sting Considerations:		sterility and endotoxin testing con asure an additional 5 to 9% of the r				
	<u>Sp</u>	ecial Instruction:	environmental conditions, follow	ithin the appropriate facilities under ing the necessary guidelines and pro I qualified personnel must prepare th	cedure	es as stated		
			All heat stable, reusable materials by dry heat sterilization at 250°C	and equipment must be sterilized a for 2 hours prior to use.	nd dep	yrogenated		
			Every batch of final product comp endotoxin tested before being disp	pounded using this procedure must l pensed.	be steri	lity and		
				le gown, sterile gloves, shoe covers, lways be worn. In addition, proper tering the buffer or clean area.				
				by performing a filter stress test. If t be defective, the solution must be d				
	Gentamicin Sulfate has a Narrow Therapeutic Index. This proced use of very small quantities of ingredients. All calculations and pro- techniques must be verified before dispensing the final product.							



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SUGGESTED PREPARATION (for 100 mL)

Weigh and / or measure the following ingredients when appropriate:

Ingredient Listing	Qty.	Unit	Multiplication factor ^(*) :	Processing Error	Qty. to measure
Gentamicin Sulfate, USP §	16.900	g			
Benzyl Alcohol, NF §	1.0	mL	\otimes		
Sterile Water For Injection, USP §	80.0	mL			
Sterile Water For Injection, USP §	q.s. to 100.0	mL			

* Takes into account increased batch size conversions and density conversions, if required.

§ Weigh / measure just prior to use.

	Preparatory Instruction
	IMPORTANT: All preparatory procedures must be performed using proper Aseptic Technique
1.	Equipment sterilization:
	Following the manufacturer's specifications, sterilize and depyrogenate all heat stable, reusable materials and equipment, then return to ambient temperature.
2.	Vehicle preparation:
	A Combine and mix the following ingredients together until homogeneously dispersed:
	 Benzyl Alcohol Sterile Water For Injection (80.0 mL plus processing error adjustments)
	End result: Homogeneous liquid-like solution.



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3.	Powder-liquid integration: A. Incrementally add the following ingredient to the homogeneous liquid-like solution (Step 2A): - Gentamicin Sulfate Specification: Continuously mix until all solid particles have completely dissolved. End result: Homogeneous liquid-like solution.
4.	Filling to volume: A. Add additional Sterile Water For Injection to the homogeneous liquid-like solution (Step 3A) to fill to the required batch size (100.0 mL <i>plus</i> processing error adjustments). Specification: Continuously mix. End result: Homogeneous liquid-like solution.
5.	Filtering and transferring: Aseptically filter the solution through a 0.22-µm sterile filter into the recommended dispensing container (see Packaging requirements). Transfer the remainder into a separate dispensing container. This is to be used as the Test sample for sterility and endotoxin testing.
6.	Filter integrity test: Validate filter integrity by performing a filter stress test. If the test demonstrates that the filter might be defective, the solution must be discarded and remade.
7.	Sterility testing: Validate the Test sample for sterility and endotoxins, in accordance to current USP 797 regulatory guidelines.



Instructions

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	Suggested Formula								
SUC	UGGESTED PRESENTATION								
	14 days, refrigerated								
	Estimated Beyond-Use Date		BUD based on a successful sterility and endotoxin test result.	D •		Sterile, light-resistant injection vials.			
		1	Use as directed. Do not exceed dose.	l prescribed	6	Hypertonic solution, inject s	lowly.		
		2	Keep out of reach of children.		7	Discard container after use.			
	Auxiliary	3	For veterinary use only.	8 Do not use if discolored.		Do not use if discolored.			
	Labels	4	Keep refrigerated. Do not freeze	ot freeze.		Consult your health care practitioner if any other prescription or over-the-counter medications are currently being used or are prescribed for future use.			
			Discard in the presence of matter.	particulate	10	Protect from light.			
	Pharmacis Instructions	t s mu	d any auxiliary labels specific to the IPORTANT: Using proper as propriate concentrations with the st be administered accordingly and <u>DTE</u> : Once diluted it must be used	eptic technic le appropria as determine	jues, te ster ed by f	one must dilute the Gentam rile diluent prior to intravenou the prescribing physician.	icin Su us inje		
	Patient Instructions Contact your pharmacist in the event of adverse reactions.								



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Suggested FormulaGentamicin Sulfate 169 mg/ mL Intramuscular, Intravenous Injection (Solution, 100 mL)FINF 000 942

REFERENCES

1.	USP <797> Pharmaceutical Compounding – Sterile Preparations. US Pharmacopeial Convention, Inc. <i>United States Pharmacopeia XXVII / National Formulary 22.</i> Rockville, MD: US Pharmacopeial Convention, Inc.
2.	Gentamicin (Monograph). In: O'Neil MJ. <i>The Merck Index 13th Edition</i> . Whitehouse Station, NJ: Merck & Co, Inc.; 2001: 780.
3.	Gentamicin Sulfate. In: Trissel LA. <i>Trissel's Stability of Compounded Formulations</i> , 2 nd Edition. American Pharmaceutical Association; 2000: 169.
4.	Gentamicin Sulfate (Monograph). US Pharmacopeial Convention, Inc. United States Pharmacopeia XXV / National Formulary 20. Rockville, MD: US Pharmacopeial Convention, Inc; 2001: 792.
5.	Gentamicin Injection (Monograph). US Pharmacopeial Convention, Inc. <i>United States Pharmacopeia XXV / National Formulary 20</i> . Rockville, MD: US Pharmacopeial Convention, Inc; 2001: 793.

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