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

Suggested Formula	Nizatidine 15 mg/mL Oral Liquid (Suspension, 100 mL)	FIN	F 002 802v2

SUGGESTED FORMULATION

Ingredient Listing	Qty.	Unit	NDC #	Supplier	Lot Number	Expiry Date
Nizatidine (150 mg) Capsules	10	Units				
Propylene Glycol, USP	10.0	mL				
Cherry Flavor	0.5	mL				
Raspberry Flavor	0.5	mL				
Medisca Oral Suspend (Suspending Vehicle)	40.0	mL				
Medisca Oral Syrup (Flavored Vehicle)	q.s. to 100.0	mL				

SPECIAL PREPARATORY CONSIDERATIONS

Ingredient-Specific Information

Light sensitive *(protect from light whenever possible):* *Nizatidine, Propylene Glycol*

Hygroscopic *(protect from moisture whenever possible):* *Propylene Glycol*

Suggested Preparatory Guidelines

■ Non-Sterile Preparation ☐ Sterile Preparation

Processing Error / Testing Considerations: To account for processing error considerations during preparation, it is suggested to measure an additional **5 to 9%** of the required quantities of ingredients.

Special Instruction: Protective apparel, such as a lab coat, disposable gloves, eyewear and face-masks should always be worn.

This procedure requires the use of very small quantities of ingredients. All calculations and preparation 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
Nizatidine (150 mg) Capsules §	10	Units			
Propylene Glycol, USP §	10.0	mL			
Cherry Flavor	0.5	mL			
Raspberry Flavor	0.5	mL			
Medisca Oral Suspend (Suspending Vehicle)	40.0	mL			
Medisca Oral Syrup (Flavored Vehicle)	q.s. to 100.0	mL			

* Takes into account increased batch size conversions and density conversions, if required.
§ Weigh / measure just prior to use.

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Preparatory Instruction

1. **Ingredient quantification (determine the actual quantity of Nizatidine (150 mg) capsule powder mix to weigh):**

A. Empty and weigh the contents of 11 Nizatidine (150 mg) Capsules.
Record the total weight here: _____ g

B. Calculate the average weight of powder in each capsule:

Weight of powder from 11 capsules (from Step 1A): _____ g

DIVIDED BY

Number of capsules: 11

EQUALS

Average weight of powder from a single Nizatidine (150 mg) Capsule: _____ g

C. Calculate the weight of powder equivalent to 10 capsules:

Average weight of powder from a single Nizatidine (150 mg) Capsule (from Step 1B): _____ g

MULTIPLED BY

Number of capsules required: 10

EQUALS

Weight of powder equivalent to 10 capsules: _____ g

D. Calculate the weight of powder required plus processing error adjustments:

Weight of powder equivalent to 10 capsules (from Step 1C): _____ g

MULTIPLED BY

Processing error adjustments (5 to 9%): 1.05 to 1.09

EQUALS

Weight of powder required *plus* processing error adjustments: _____ **g**

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2.	**Powder preparation:** A. Empty and triturate the contents of the 11 Nizatidine (150 mg) Capsules to form a fine, homogeneous powder. B. Weigh the quantity of Nizatidine (150 mg) capsule powder mix required for the batch (refer to Step 1D) and discard the remaining powder.
3.	**Powder-Liquid preparation:** A. Levigate the Nizatidine (150 mg) capsule powder mix (amount weighed in Step 2B) with the Propylene Glycol. End result: Homogeneous liquid-like dispersion.
4.	**Liquid preparation:** A. In the given order, sequentially add the following ingredients to the Oral Suspend (Suspending Vehicle): -Homogeneous liquid-like dispersion (Step 3A) -Cherry Flavor -Raspberry Flavor Specifications: Continuously mix, using high-shear mixing techniques. End result: Homogeneous liquid-like dispersion. Note: Add the next ingredient, once the previous one has been completely added and dispersed.
5.	**Filling to volume:** A. Add Oral Syrup (Flavored Vehicle) to the homogeneous liquid-like dispersion (Step 4A) to fill to the required batch size (100.0 mL *plus* processing error adjustments). Specifications: Continuously mix, using high-shear mixing techniques. End result: Homogeneous liquid-like dispersion.
6.	**Product transfer:** A. Transfer the final product into the specified dispensing container (see "Packaging requirements"). Note: Continuously mix the final product during the transfer process into the recommended dispensing containers in order to maintain homogeneity.

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SUGGESTED PRESENTATION

Estimated Beyond-Use Date		14 days, refrigerated, as per USP.	Packaging Requirements		- Tightly closed, light-resistant dispensing bottle. - To be administered with a metered dose-measuring device.
Auxiliary Labels	1	Use as directed. Do not exceed prescribed dose.	6		Shake well before use.
	2	Keep out of reach of children.	7		Do not take with alcohol, sleep aids, tranquilizers or other CNS depressants.
	3	Keep refrigerated. Do not freeze.	8		May impair mental and/or physical ability. Use care when operating a car or machinery.
	4	Consult your health care practitioner if any prescription or over-the-counter medications are currently being used or are prescribed for future use.	9		Cap tightly after use.
	5	Protect from light.			
Pharmacist Instructions		Add any auxiliary labels specific to the API to the dispensing container as deemed necessary.			
Patient Instructions		Contact your pharmacist in the event of adverse reactions.			

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REFERENCES

1.	Suspensions. In: Allen, LV, Jr. *The Art, Science and Technology of Pharmaceutical Compounding.* American Pharmaceutical Association; 1998: 167.
2.	Apo-Nizatidine. In: Canadian Pharmacists Association. *Compendium of Pharmacists and Specialties, 2007.* 186.
3.	Propylene Glycol. In: Rowe RC. *Handbook of Pharmaceutical Excipients, 4th Edition*. American Pharmaceutical Association; 2003: 521.
4.	Nizatidine. In: Sweetman SC, ed. *Martindale: The Complete Drug Reference, 34th Edition.* London, England: The Pharmaceutical Press; 2005: 1277.
5.	Nizatidine (Monograph). In: O'Neil MJ. *The Merck Index 14th Edition*. Whitehouse Station, NJ: Merck & Co, Inc.; 2006: Monograph #6660.
6.	Nizatidine. In: Trissel LA. *Trissel's Stability of Compounded Formulations, 3rd Edition.* American Pharmaceutical Association; 2005: 315.
7.	Nizatidine (Monograph). *United States Pharmacopeia XXVIII / National Formulary 23.* Rockville, MD. US Pharmacopeial Convention, Inc. 2004: 1389.
8.	Nizatidine. Thomson Micromedex. *USP DI – Drug Information for the Health Care Professional, 26th Edition.* Taunton, MA: US Pharmacopeial Convention, Inc; 2006: 1654.
9.	USP <795>. *United States Pharmacopeia XXVIII / National Formulary 23.* Rockville, MD. US Pharmacopeial Convention, Inc. 2004: 2457.