



Suggested Formula	Verapamil Hydrochloride 240 mg/5 mL Oral Liquid (Suspension, 100 mL)	FIN	F 003 499v3
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SUGGESTED FORMULATION

Ingredient Listing	Qty.	Unit	NDC #	Supplier	Lot Number	Expiry Date
Verapamil Hydrochloride, USP	4.800	g				
Propylene Glycol, USP	7.0	mL				
Tutti Frutti Flavor	1.0	mL				
Medisca Oral Suspend (Suspending Vehicle)	43.0	mL				
Medisca Oral Syrup (Flavored Vehicle)	q.s. to 100.0	mL				

SPECIAL PREPARATORY CONSIDERATIONS

Ingredient-Specific Information

Hygroscopic (protect from moisture whenever possible):

Propylene Glycol

Light Sensitive (protect from light whenever possible):

Verapamil Hydrochloride, 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
Verapamil Hydrochloride, USP §	4.800	g			
Propylene Glycol, USP §	7.0	mL			
Tutti Frutti Flavor	1.0	mL			
Medisca Oral Suspend (Suspending Vehicle)	43.0	mL			
Medisca Oral Syrup (Flavored Vehicle)	q.s. to 100.0	mL			

§ Weigh / measure just prior to use.

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

Preparatory Instruction

1.	<p><u>Powder-liquid preparation:</u></p> <p>A. Triturate the Verapamil Hydrochloride to form a fine, homogeneous powder.</p> <p>B. Levigate the fine, homogeneous powder (Step 1A) with the Propylene Glycol.</p> <p><u>End result:</u> Homogeneous liquid-like dispersion.</p>
2.	<p><u>Medium integration:</u></p> <p>A. In the given order, sequentially add the following ingredients to the Oral Suspend (Suspending Vehicle):</p> <ul style="list-style-type: none">-Tutti Frutti Flavor-Homogeneous liquid-like dispersion (Step 1B) <p><u>Specifications:</u> Continuously mix, using high-shear mixing techniques.</p> <p><u>End result:</u> Homogeneous liquid-like dispersion.</p> <p><u>Note:</u> Add the next ingredient, once the previous one has been completely added and dispersed.</p>



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3.	<p><u>Filling to volume:</u></p> <p>A. Add Oral Syrup (Flavored Vehicle) to the mixture (Step 2A) to fill to the required batch size (100.0 mL <i>plus</i> processing error adjustments).</p> <p><u>Specifications:</u> Continuously mix, using high-shear mixing techniques.</p> <p><u>End result:</u> Homogeneous liquid-like dispersion.</p>
4.	<p><u>Product transfer:</u></p> <p>A. Transfer the final product into the specified dispensing container (see “Packaging requirements”).</p> <p><u>Note:</u> Continuously mix the final product during the transfer process into the recommended dispensing containers in order to maintain homogeneity.</p>

SUGGESTED PRESENTATION

Estimated Beyond-Use Date		Packaging Requirements	
14 days, refrigerated, as per USP.			- 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 Cap tightly after use.
	2	Keep out of reach of children.	7 Shake well before use.
	3	Consult your health care practitioner if any other prescription or over-the-counter medications are currently being used or are prescribed for future use.	8 Keep refrigerated. Do not freeze.
	4	Do not take with alcohol, sleep aids, tranquilizers or other CNS depressants.	9 Protect from light.
	5	May impair mental and/or physical ability. Use care when operating a car or machinery.	10 Do not take with grapefruit juice.
Pharmacist Instructions	Add any auxiliary labels specific to the active to the dispensing container as deemed necessary.		
Patient Instructions	Contact your pharmacist in the event of adverse reactions.		



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REFERENCES

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3.	Propylene Glycol. In: Rowe RC. <i>Handbook of Pharmaceutical Excipients, 4th Edition</i> . American Pharmaceutical Association; 2003: 521.
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8.	Verapamil Systemic. Thomson Micromedex. <i>USP DI – Drug Information for the Health Care Professional, 26th Edition</i> . Taunton, MA: US Pharmacopeial Convention, Inc; 2006: 735.
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