

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>

4/21/2013; Page 1

Suggested Formula Loraze	pam 1 mg/mL Oral Liquid (Suspension, 100 mL)	FIN	F 001 270v2
-----------------------------	--	-----	-------------

SUGGESTED FORMULATION

Ingredient Listing	Qty.	Unit	NDC #	Supplier	Lot Number	Expiry Date
Lorazepam, USP	0.100	g				
Propylene Glycol, USP	5.0	mL				
Medisca Oral Suspend (Suspending Vehicle)	45.0	mL				
Medisca Oral Syrup (Flavored Vehicle)	q.s. to 100.0	mL				

SPECIAL PREPARATORY CONSIDERATIONS

Ingredient-Specific Information

Controlled substance (adhere to proper handling and documentation procedures)

Hygroscopic (protect from moisture whenever possible):

Light Sensitive (protect from light whenever possible):

	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.						

Lorazepam

Propylene Glycol

Lorazepam, Propylene Glycol



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>

4/21/2013; Page 2

Suggested Formula	Lorazepam 1 mg/mL Oral Liquid (Suspension, 100 mL)	FIN	F 001 270v2	
----------------------	--	-----	-------------	--

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
Lorazepam, USP §	0.100	g			
Propylene Glycol, USP §	5.0	mL			
Medisca Oral Suspend (Suspending Vehicle)	45.0	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.	Powder-liquid preparation:
	A. Triturate the Lorazepam to form a fine, homogeneous powder.
	B. Levigate the fine, homogeneous powder (Step 1A) with the Propylene Glycol.
	End result: Homogeneous liquid-like dispersion.
2.	Medium integration:
	A. Incrementally add the homogeneous liquid-like dispersion (Step 1B) to the Oral Suspend (Suspending Vehicle).
	Specifications: Continuously mix, using high-shear mixing techniques.
	End result: Homogeneous liquid-like dispersion.
3.	Filling to volume:
	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).
	Specifications: Continuously mix, using high-shear mixing techniques.
	End result: Homogeneous liquid-like dispersion.



4.

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>

4/21/2013; Page 3

Suggested FormulaLorazepam 1 mg/mL Oral Liquid (Suspension, 100 mL)FINF 001 270v2
--

Product transfer:

A. Transfer the final product into the specified dispensing container (see "Packaging requirements").

<u>Note</u>: Continuously mix the final product during the transfer process into the recommended dispensing containers in order to maintain homogeneity.

SUGGESTED PRESENTATION

	Estimated 14 days, refrigerated, as per Packa Requirem			00	 Tightly closed, light-resistant dispensing bottle. To be administered with a metered dose- measuring device.
	1	Use as directed. Do not exceed prescribed dose.		7	Cap tightly after use.
	2	Keep out of reach of children.		8	Shake well before use.
Auxiliary Labels	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.		9	Keep refrigerated. Do not freeze.
Labers	4	Do not take with alcohol, sleep aids, tranquilizers or other CNS depressants.			Protect from light.
	5	May produce psychological and/or physical dependence.			Controlled substance. Dangerous unless used as directed.
	6	May impair mental and/or physical ability. Use care when operating a car or machinery.			
Pharmacist Instructions	Add any auxiliary labels specific to the active to the dispensing container as deemed necessary. Contact your pharmacist in the event of adverse reactions.				
Patient Instructions					



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>

4/21/2013; Page 4

	Suggeste Formu			F 001 270v2				
REF	ERENC	ES						
1		Suspensions. In: Allen, LV, Jr. <i>The Art, Science and Technology of Pharmaceutical Compounding</i> . American Pharmaceutical Association; 1998: 167.						
4	2. Ati	van. In: Canadian Pharmacists Association. Compendium of Pharmacists and Specialties,	2005. 2	211.				
		pylene Glycol. In: Rowe RC. Handbook of Pharmaceutical Excipients, 4 th Edition. Americociation; 2003: 521.	can Ph	armaceutical				
2		Lorazepam. In: Sweetman SC, ed. <i>Martindale: The Complete Drug Reference, 34th Edition</i> . London, England: The Pharmaceutical Press; 2005: 704.						
-		Lorazepam (Monograph). In: O'Neil MJ. <i>The Merck Index 13th Edition</i> . Whitehouse Station, NJ: Merck & Co, Inc.; 2001: 999.						
(Lorazepam. In: Trissel LA. <i>Trissel's Stability of Compounded Formulations</i> , 2 nd Edition. American Pharmaceutical Association; 2000: 225.						
		Lorazepam (Monograph). US Pharmacopeial Convention, Inc. United States Pharmacopeia XXV / National Formulary 20. Rockville, MD: US Pharmacopeial Convention, Inc; 2001: 1021						
8		<usp 795="">. US Pharmacopeial Convention, Inc. United States Pharmacopeia XXV/National Formulary 20. Rockville, MD: US Pharmacopeial Convention, Inc; 2001: 2053.</usp>						
9		Lorazepam. US Pharmacopeial Convention, Inc. USP DI – Drug Information for the Health Care Professional, 26 th Edition. Taunton, MA: US Pharmacopeial Convention, Inc; 2006: 574.						
	•							

DISCLAIMER: MEDISCA NETWORK INC., HEREBY REFERRED TO AS 'THE NETWORK', HAS PROVIDED THE FORMULA AND INSTRUCTIONS ABOVE AS A MODEL FOR EDUCATIONAL PURPOSES ONLY ON THE BASIS OF THE RECOGNIZED COMPENDIA AND TEXTS REFERENCED AT THE END OF THIS DOCUMENT. THE NETWORK TAKES NO RESPONSIBILITY FOR THE VALIDITY OR ACCURACY OF THIS INFORMATION OR FOR ITS SAFETY OR EFFECTIVENESS, NOR FOR ANY USE THEREOF, WHICH IS AT THE SOLE RISK OF THE LICENSED PHARMACIST. ADJUSTMENTS MAY BE NEEDED TO MEET SPECIFIC PATIENT NEEDS AND IN ACCORDANCE WITH A LICENSED PHARMACIST. ADJUSTMENTS MAY BE NEEDED TO MEET SPECIFIC PATIENT NEEDS AND IN ACCORDANCE WITH A LICENSED PRESCRIBER'S PRESCRIPTION. THE PHARMACIST MUST EMPLOY APPROPRIATE TESTS TO DETERMINE THE STABILITY OF THIS SUGGESTED FORMULA. THE NETWORK CANNOT BE HELD LIABLE TO ANY PERSON OR ENTITY CONCERNING CLAIMS, LOSS, OR DAMAGE CAUSED BY, OR ALLEGED TO BE CAUSED BY, DIRECTLY OR INDIRECTLY, THE USE OR MISUSE OF THE INFORMATION CONTAINED IN THIS SUGGESTED FORMULA. IN ALL CASES IT IS THE RESPONSIBILITY OF THE LICENSED PHARMACIST TO KNOW THE LAW, TO COMPOUND ANY FINISHED PRODUCT AND TO DISPENSE THESE PRODUCTS IN ACCORDANCE WITH FEDERAL AND STATE LAW.