MEDISCA® NETWORK INC.
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FORMULATION CHEMISTRY DEPARTMENT
TOLL-FREE: 866-333-7811
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| Suggested Formula | Promethazine Hydrochloride 25 mg/mL Intramuscular Injection (Solution, 30 mL) | FIN | F 004 975v2 |
|---|---|---|---|

## SUGGESTED FORMULATION

| Ingredient Listing | Qty. | Unit | NDC # | Supplier | Lot Number | Expiry Date |
|---|---|---|---|---|---|---|
| Promethazine Hydrochloride, USP | 0.750 | g | | | | |
| Excipient Blend † | 0.09 | g | | | | |
| Liquefied Phenol, USP | 0.16 | g | | | | |
| Sterile Water for Injection, USP | 25.0 | mL | | | | |
| Sterile Water for Injection, USP | q.s. to 30.0 | mL | | | | |
| Sodium Hydroxide 10% Solution | As required | | | | | |
| | | | | | | |
| † **Excipient Blend** | | | | | | |
| Edetate Disodium, USP | 0.10 | g | | | | |
| Calcium Chloride, USP | 0.04 | g | | | | |
| Sodium Metabisulfite, NF | 0.25 | g | | | | |
| Sodium Chloride, USP | 2.61 | g | | | | |

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## SPECIAL PREPARATORY CONSIDERATIONS

Ingredient-Specific Information

| | |
|---|---|
| ***Light sensitive*** *(protect from light whenever possible):* | *Promethazine Hydrochloride, Benzyl Alcohol, Sodium Metabisulfite, Liquefied Phenol* |
| ***Oxygen sensitive*** *(protect from air whenever possible):* | *Liquefied Phenol* |
| ***Corrosive Material*** *(causes burns to every area of contact):* | *Liquefied Phenol* |
| ***Heat Sensitive*** *(protect from heat whenever possible):* | *Liquefied Phenol* |
| ***Hygroscopic*** *(protect from moisture whenever possible):* | *Edetate Disodium* |
| ***Air sensitive*** *(protect from air whenever possible):* | *Sodium Metabisulfite, Promethazine Hydrochloride* |
| ***Moisture sensitive*** *(protect from humidity whenever possible):* | *Calcium Chloride, Sodium Metabisulfite, Promethazine Hydrochloride* |

Suggested Preparatory Guidelines

☐ Non-Sterile Preparation ■ Sterile Preparation

Processing Error / Testing Considerations: To account for processing error, pH testing, sterility and endotoxin testing considerations during preparation, it is suggested to measure an additional **12 to 15%** of the required quantities of ingredients.

Special Instruction: This formula must be prepared within the appropriate facilities under adequate environmental conditions, following the necessary guidelines and procedures as stated within *USP 797*. Only trained and qualified personnel must prepare this formula.

All heat stable, reusable materials and equipment must be sterilized and depyrogenated by dry heat sterilization at 250°C for 2 hours prior to use.

Every batch of final product compounded using this procedure must be sterility and endotoxin tested before being dispensed.

Protective apparel, such as a sterile gown, sterile gloves, shoe covers, head cap, eyewear and face-masks should always be worn. In addition, proper personnel cleansing must be done before entering the buffer or clean area.

Filter integrity must be validated by performing a filter stress test. If the test demonstrates that the filter might be defective, the solution must be discarded and remade.

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 30 mL)

Weigh and / or measure the following ingredients when appropriate:

| Ingredient Listing | Qty. | Unit | Multiplication factor (*): ____ | Processing Error | Qty. to measure |
|---|---|---|---|---|---|
| Promethazine Hydrochloride, USP § | 0.750 | g | | | |
| Excipient Blend † § | 0.09 | g | | | |
| Liquefied Phenol, USP § | 0.16 | g | | | |
| Sterile Water for Injection, USP § | 25.0 | mL | | | |
| Sterile Water for Injection, USP § | q.s. to 30.0 | mL | | | |
| Sodium Hydroxide 10% Solution § | As required | | | | |
| | | | | | |
| † **Excipient Blend** | | | | | |
| Edetate Disodium, USP § | 0.10 | g | --- | --- | |
| Calcium Chloride, USP § | 0.04 | g | --- | --- | |
| Sodium Metabisulfite, NF § | 0.25 | g | --- | --- | |
| Sodium Chloride, USP § | 2.61 | g | --- | --- | |

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

| Preparatory Instruction<br>**IMPORTANT: All preparatory procedures must be performed using proper Aseptic Technique** | |
|---|---|
| 1. | **Equipment sterilization:**<br><br>Following the manufacturer's specifications, sterilize and depyrogenate all heat stable, reusable materials and equipment, then return to ambient temperature. |
| 2. | † **Excipient Blend preparation:**<br><br>A. By geometric addition, combine and mix the following ingredients together to form a homogenous powder blend:<br><br>-Edetate Disodium<br>-Calcium Chloride<br>-Sodium Metabisulfite<br>-Sodium Chloride |

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3. **Medium Integration:**

A. In the given order, sequentially add the following ingredients to the Sterile Water for Injection (25.0 mL *plus* processing error adjustments):

-Promethazine Hydrochloride
-Excipient Blend (0.09 g *plus* processing error adjustments)
-Liquefied Phenol

Specifications: Continuously mix until all solid particles have completely dissolved.

End result: Homogeneous liquid-like solution.

Note: Add the next ingredient, once the previous one has been completely added and dissolved.

4. **pH testing:**

A. Draw an appropriate amount of the mixture (Step 3A).

B. Test the pH of the sample. It should lie between 4.8 and 5.2.

C. If the pH < 4.8, carefully add in a dropwise manner the Sodium Hydroxide 10% Solution to the mixture:

1. Draw and transfer 1 or 2 drops of the Sodium Hydroxide 10% Solution to the mixture.
2. Stir for at least 5 minutes to evenly disperse the Sodium Hydroxide 10% Solution.
3. Re-test the pH.
4. Continue to add the Sodium Hydroxide 10% Solution until the pH of 4.8 and 5.2 is obtained.

IMPORTANT: Do not allow the pH to rise above 5.2.

5. **Filling to volume:**

A. Add additional Sterile Water For Injection to the above mixture to fill to the required batch size (30.0 mL *plus* processing error adjustments).

Specifications: Continuously mix.

End result: Homogeneous liquid-like solution.

6. **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 separate dispensing containers. These are to be used as the Test samples for sterility and endotoxin testing.

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| 7. | **Filter integrity test:**<br><br>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. |
| 8. | **Sterility testing:**<br><br>Validate the Test samples for sterility and endotoxins, in accordance to current USP 797 regulatory guidelines. |

## SUGGESTED PRESENTATION

| | | | | | |
|---|---|---|---|---|---|
| Estimated Beyond-Use Date | | 14 days, refrigerated, as per USP 797.<br>BUD based on a successful sterility and endotoxin test result. | Packaging Requirements | | Sterile, tightly closed, light-resistant injection vials. |
| Auxiliary Labels | 1 | Use as directed. Do not exceed prescribed dose. | | 7 | Discard container after use. |
| | 2 | Keep out of reach of children. | | 8 | Protect from light. |
| | 3 | Keep refrigerated. Do not freeze. | | 9 | Equilibrate to room temperature before use. |
| | 4 | Consult your health care practitioner if any other prescription or over-the-counter medications are currently being used or are prescribed for future use. | | 10 | Discard in the presence of particulate matter. |
| | 5 | Do not use if product changes color. | | 11 | May impair mental and/or physical ability. Use care when operating a car or machinery. |
| | 6 | Do not take with alcohol, sleep aids, tranquilizers or other CNS depressants. | | 12 | Keep in a dry place. |
| 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


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