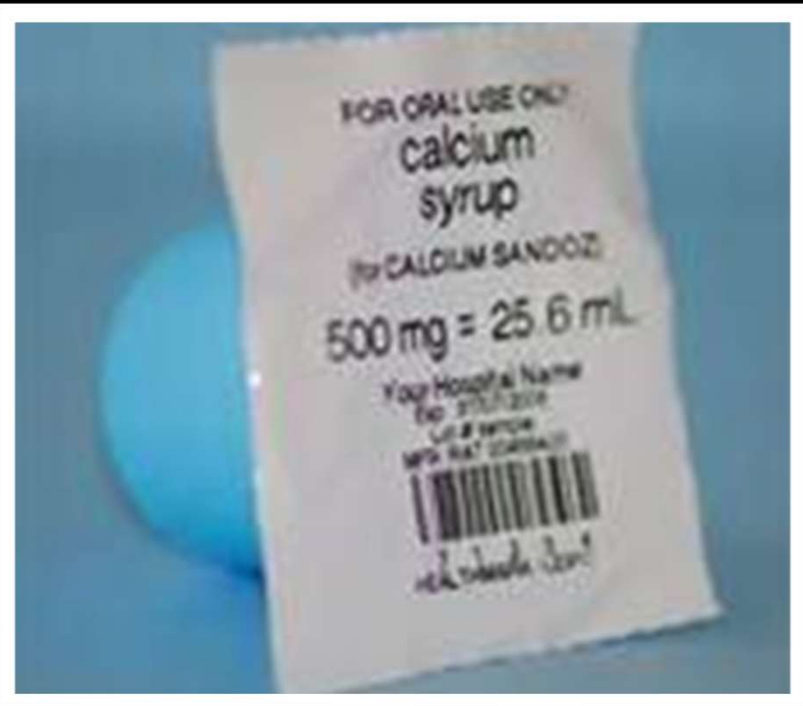


Reading Medication Labels

Calhoun Community College





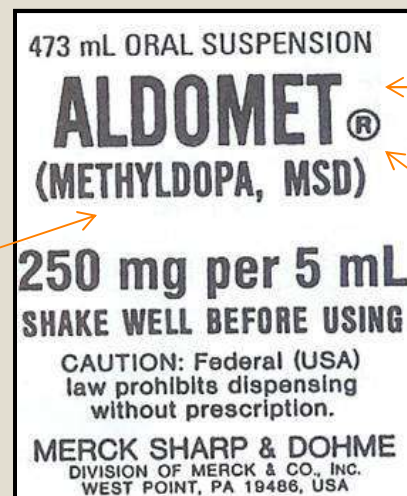


Why are drug labels so important?

- **Generic Name** – name given by *manufacturer who developed* the medication. Legally, all medication labels must identify the generic name. It appears under trade name in smaller letters, may be in ()
 - Example: VISTARIL (hydroxyzine) ~ anti-anxiety
APRESOLINE (hydralazine) ~ treat HTN
- **Brand Name** (trade) – *manufacturer's name* for the drug (usually the most prominent name on the label and most of the time ALL CAPITALIZED

& **BOLD PRINT**)

Generic
Name



Brand/Trade
Name

Registration Symbol—
given after trade mark
formally registered

Drug labels continued...

- **Dosage Strength** – weight or amount of drug provided in a specific unit of measurement (some may have 2 different strengths provided)
 - EXAMPLE: 100 mg per tablet
 40 mg per 5 mL
 Combination 5 mg/500 mg
- **Form** – identifies the structure and composition of the drug (tablet, liquid, solution, suppository, patch, or powder)
 - Other forms:
 - CR** (controlled release) & **SR** (sustained release)
 - LA** (long acting) & **XL** (long acting)
 - DS** (double strength)

(Don't confuse these initials with USP or NF initials)

Drug labels continued...

- **Total Volume** – refers to full quantity obtained in package, bottle or vial.
- **Administration Route** – refers to the site of the body or method of drug delivery into the client (Oral, IM, IV, Topical)
- **Directions for Mixing or Reconstituting** – refers to drugs that are dispensed in powder form which must be reconstituted for use
- **Label Alerts** – Warning such as: “keep in dry place” “refrigerate after opening” “protect from light”
- **Expiration Date** – may lose potency or become toxic

NDC 0074-3956-46

160 mL Oral Solution

Total volume

KALETRA™

(lopinavir/ritonavir) oral solution

Route of administration

Each mL contains:

lopinavir 80 mg

ritonavir 20 mg

Combination medications



Rx only

02-8413-2/R3

ALERT

Alert (Warning)

**Find out about medicines that
should NOT be taken with KALETRA**

**Note to Pharmacist: Do not cover
ALERT box with pharmacy label.**

Exp. 7/2008

Expiration date

Storage conditions/
shelf life

75 mL LORABID® LORACARBEF FOR ORAL SUSPENSION, USP
200 mg per 5 mL. Oversize bottle provides extra space for shaking. Store at room temperature (59° to 86°F). May be kept for 14 days without significant loss of potency. Keep Tightly Closed. Discard unused portion after 14 days.
SHAKE WELL BEFORE USING



Control No.

Expiration date

Expiration Date

WW 4581 AMX
Eli Lilly and Company
Indianapolis, IN 46285, USA

Usual dose Total units

Usual Dose—Pediatric patients, 15 mg per kg per day (30 mg per kg per day for otitis media) in divided doses twice a day. Adults, 200 mg twice a day. See literature for complete dosage information.
Prior to Mixing. Store at Controlled Room Temperature 59° to 86°F (15° to 30°C).
Directions for Mixing—Add 45 mL of water in two portions to the dry mixture in the bottle. Shake well after each addition.
Contains Loracarbef equivalent to 3 g of activity in a dry pleasantly flavored mixture.
Each 5 mL (Approx. one teaspoonful) will then contain: Loracarbef equivalent to 200 mg of activity.

Concentration strength

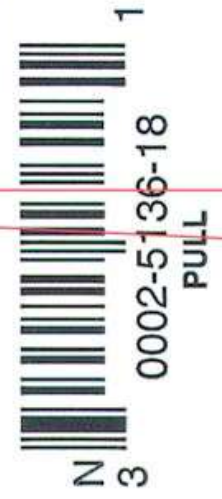
NDC 0002-5136-18
75 mL (When Mixed) M-5136



LORABID®
LORACARBEF
FOR ORAL
SUSPENSION, USP

200 mg
per 5 mL

CAUTION—Federal (USA)
law prohibits dispensing
without prescription.



Medication name
Route

NDC 0777-0869-02 
100 PULVULES[®] No. 402

KEFLEX[®]
CEPHALEXIN
CAPSULES, USP

250 mg



CAUTION—Federal (U.S.A.) law prohibits dispensing without prescription.

Keep Tightly Closed

Store at Controlled Room Temperature 59° to 86°F (15° to 30°C)

WV 3473 DPX

Manufactured by

DISTA PRODUCTS CO.

a Division of Eli Lilly Industries, Inc.

Carolina, Puerto Rico 00630

a Subsidiary of Eli Lilly and Company

Indianapolis, IN, U.S.A.

Expiration Date/Control No.

Usual Adult Dose—One PULVULE every 6 hours. For more severe infections, dose may be increased, not to exceed 4 g a day. See literature.

Each PULVULE contains Cephalixin Monohydrate equivalent to 250 mg Cephalixin.

Dispense in a tight container.



3 0777 0869 02 9

Drug labels continued...

- **National Drug Code (NDC)** – unique identifying number (like our SSN) assigned to each medication listed under Section 510 of the U.S. Federal FDA. The segments identifies the labeler or vendor, product (within the scope of the labeler), and trade package of this product.
- Ex: NDC 0009-5136-01
 - a) The **first segment**, the labeler code identifies any firm that manufactures, repacks or distributes a drug product.
 - b) The **second segment**, the product segment, identifies a specific strength, dosage form, and formulation for a particular firm.
 - c) The **third segment**, the package segment, identifies package forms and sizes. In very exceptional cases, product and package segments have contained characters other than digits.

Drug labels continued...

- **Lot or Control Numbers** – for identification in case of ***recalls*** (tracking)
- **United States Pharmacopeia (USP)** – est. in 1820, contains legally recognized *standards of identity, strength, quality, purity, packaging, & labeling* for drug substances, dosage forms, and other therapeutic products, including nutritional and dietary supplements.

Drug labels continued...

- **National Formulary (NF)** – est. in 1888 by the American Pharmaceutical Association, includes standards for excipients, botanicals, and other similar products. USP purchased the NF in 1975, creating the USP-NF which now contain specifications (tests, procedures, and acceptance criteria) that helps ensure the strength, quality, and purity of named items. It also helps to ensure the quality of compounded preparations. These monographs (book) are recognized worldwide and may be enforceable by the US Food and Drug Administration (FDA) and also by state agencies in the US.

On the following labels, complete the following information:

- Generic name:
- Trade name:
- Dosage strength:
- Total Volume:
- Warning or precautions:
- How will you store this medication?
- Form of medication?
- Any special instructions?

Practice Reading Labels

NDC 0039-0063-06



Lasix[®]
(furosemide)

ORAL SOLUTION
10 mg/mL

60 mL

with calibrated safety dropper

Caution: Federal law prohibits
dispensing without prescription.

HOECHST-ROUSSEL Pharmaceuticals Inc.
Somerville, N.J. 08876

Answer:

Generic name: furosemide

Trade name: Lasix

Dosage strength: 10 mg/mL

Total Volume: 60 mL

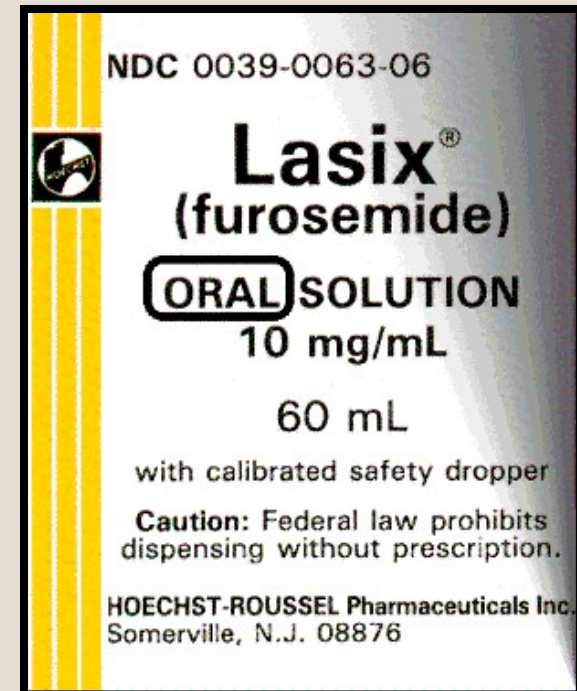
Warning or precautions:

None

How will you store this medication? None

Form of medication? Oral

Any special instructions? Use calibrated safety dropper



**FOR SUBCUTANEOUS
USE ONLY**

SINGLE DOSE VIAL

**CAUTION: Federal (USA)
law prohibits dispensing
without prescription.**

9109809



NDC 0006-7786-29

1 mL INJECTION

URECHOLINE®
(BETHANECHOL CHLORIDE)

5.15 mg per mL



Dist. by:

MERCK & CO., INC.

West Point, PA 19486, USA

Lot

23255D

Exp.

Dec. 25, 2012

Answer:

Generic name: bethanechol chloride

Trade name: Urecholine

Dosage strength: 5.15 mg per mL

Total Volume: 1 mL

Warning or precautions: None

How will you store this medication?

Subcutaneous


Form of medication? Injection

Any special instructions? None

FOR SUBCUTANEOUS USE ONLY	SINGLE DOSE VIAL	CAUTION: Federal (USA) law prohibits dispensing without prescription.	9109809		NDC 0006-7786-29		
					1 mL INJECTION		
					URECHOLINE®		
					(BETHANECHOL CHLORIDE)		
					5.15 mg per mL		
					Dist. by: MERCK & CO., INC. West Point, PA 19486, USA	Lot	23255D
						Exp.	Dec. 25, 2012

NDC 0054-8585

DELIVERS 5 ml

**MORPHINE
SULFATE** 
10 mg per 5 ml

Oral Solution

(Warning: May be habit forming)
(SUGAR AND ALCOHOL FREE)

Caution: Federal law prohibits
dispensing without prescription

See Package Insert



Roxane
Laboratories, Inc.
Columbus, Ohio 43218

PEEL

065

Answer:

Generic name: None

Trade name: Morphine Sulfate

Dosage strength: 10 mg per 5 mL

Total Volume: 5 mL

Warning or precautions: May be habit forming

How will you store this medication? None

Form of medication? Oral Solution

Any special instructions? None



884110

NDC 0026-8841-86

ADALAT[®] CC

(nifedipine)
Extended Release Tablets

30 mg

90 Tablets

Caution: Federal (USA) law prohibits
dispensing without prescription.



Bayer Corporation
Pharmaceutical Division
400 Morgan Lane
West Haven, CT 06516



PL500143

©1997 Bayer Corporation

7481

Printed in USA

RECOMMENDED STORAGE:
STORE BELOW 86°F (30°C).
PROTECT FROM LIGHT.
PROTECT FROM MOISTURE.
Each tablet contains **30 mg** nifedipine.
Tablets should be swallowed whole, not bitten or divided.
DOSAGE: See accompanying prescribing information.
Dispense in tight, light resistant containers (U.S.P.).

Batch:

Expires:

Answer:

Generic name: nifedipine

Trade name: Adalat

Dosage strength: 30 mg

Total Volume: 90 tablets

Warning or precautions:

How will you store this medication? Protect from light, protect from moisture

Form of medication? Tablet

Any special instructions? Swallowed whole, not bitten or divided

884110 NDC 0026-8841-86

ADALAT® CC

(nifedipine)
Extended Release Tablets
30 mg
90 Tablets

Caution: Federal (USA) law prohibits dispensing without prescription.

RECOMMENDED STORAGE:
STORE BELOW 86°F (30°C).
PROTECT FROM LIGHT.
PROTECT FROM MOISTURE.

Each tablet contains 30 mg nifedipine.
Tablets should be swallowed whole, not bitten or divided.
DOSEAGE: See accompanying prescribing information.
Dispense in light, light resistant container (U.S.P.).

Batch:
Expires:

PL500143 7481
© 1997 Bayer Corporation Printed in USA

3 0026-8841-86 6

 Bayer Corporation
Pharmaceutical Division
400 Morgan Lane
West Haven, CT 06516

Warning—To prevent loss of potency, keep these tablets in the original container. Close tightly immediately after each use.

N 0071-0418-24

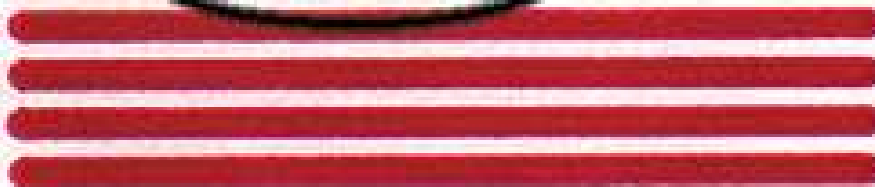
Nitrostat®

(Nitroglycerin
Tablets, USP)

0.4 mg (1/150 gr)

Rx only

100 **SUBLINGUAL** TABLETS



PARKE-DAVIS

Usual Dosage—0.3 to 0.6 mg sublingually as needed.

See package insert for full prescribing information.

Keep this and all drugs out of the reach of children.

Dispense in original, unopened container.

Store at Controlled Room Temperature 20°-25°C (68°-77°F) [see USP].

Manufactured by:
Parke Davis Pharmaceuticals, Ltd.
Vega Baja, PR 00694

Distributed by:
PARKE-DAVIS
Div of Warner-Lambert Co
Morris Plains, NJ 07950 USA
© 1999, PDPL

6505-00-687-3663

Answer:

Generic name: nitroglycerin

Trade name: Nitrostat

Dosage strength: 0.4 mg (1/150 gr)

Total Volume: 100 tablets

Warning or precautions: To prevent loss of potency, keep in the original container

How will you store this medication? Room temperature

Form of medication? Tablets

Any special instructions? None

N 0071-0418-24

Nitrostat®
(Nitroglycerin
Tablets, USP)

0.4 mg (1/150 gr)
Rx only

100 SUBLINGUAL TABLETS

Warning: To prevent loss of potency, keep these tablets in the original container. Close tightly immediately after each use.

© 1999, Parke-Davis, a division of Warner-Lambert Co. All rights reserved.

Usual Dosage—0.3 to 0.6 mg sublingually as needed.
See package insert for full prescribing information.
Keep this and all drugs out of the reach of children.
Dispense in original, unopened container.
Store at Controlled Room Temperature 20°-25°C (68°-77°F) [see USP].

Manufactured by:
Parke Davis Pharmaceuticals, Ltd.
Vege Baja, PR 00694

Distributed by:
PARKE-DAVIS
Div of Warner-Lambert Co
Morris Plains, NJ 07950 USA
© 1999, PDPL

6505-00-687-3663

 **PARKE-DAVIS**

NDC 0046-0471-91 1,000 Capsules
6505-01-191-9013

Inderal[®] LA

(propranolol hydrochloride)

LONG ACTING CAPSULES

80 mg



**NOTE: Dispense in child-resistant packaging.
This package not for household use.**

**CAUTION: Federal law prohibits
dispensing without prescription.**

Ayerst[®]

**AYERST LABORATORIES INC.
New York, NY 10017**

Answer:

Generic name: propranolol hydrochloride

Trade name: Inderal LA

Dosage strength: 80 mg

Total Volume: 1000 capsules

Warning or precautions: None

How will you store this medication?

Form of medication? Capsules

Any special instructions? Dispense in child resistant packaging



NDC 0045-0511-60

100 tablets

Tylenol[®]
with codeine

ACETAMINOPHEN AND
CODEINE PHOSPHATE

TABLETS **No. 2**

Each tablet contains:
codeine phosphate 15 mg
Warning—May be habit forming.
acetaminophen 300 mg

Caution: Federal law prohibits
dispensing without prescription.



McNEIL
PHARMACEUTICAL



RUS[®]

NDC 50474-902-01



LORTAB[®] 5 mg

**HYDROCODONE BITARTRATE AND
ACETAMINOPHEN TABLETS**

Each scored white with blue specks tab-
let contains:

Hydrocodone Bitartrate* 5 mg

*WARNING: May be habit forming.

Acetaminophen 500 mg

CAUTION: Federal law prohibits dis-
pensing without prescription.

100 TABLETS

Answer:

Generic name: hydrocodone bitartrate and acetaminophen

Trade name: Lortab

Dosage strength: 5 mg / 500 mg

Total Volume: 100 tablets

Warning or precautions: May be habit forming

How will you store this medication? Does not specify

Form of medication? Tablet

Any special instructions? None



Answer:

Generic name: acetaminophen and codeine phosphate

Trade name: Tylenol with Codeine

Dosage strength: 15 mg / 300 mg

Total Volume: 100 tablets

Warning or precautions: May be habit forming

How will you store this medication? Does not specify

Form of medication? Tablet

Any special instructions? None



EXP.

LOT

NDC 0641-2210-43
10 X 20 mL Multiple Dose Vials

ATROPINE
SULFATE INJECTION, USP

400 mcg/mL
(0.4 mg/mL)

FOR SC, IM OR IV USE

Each mL contains atropine sulfate 400 mcg (0.4 mg), sodium chloride 9 mg and benzyl alcohol 0.015 mL in Water for Injection. pH 3.0-6.5; sulfuric acid added, if needed, for pH adjustment.

POISON

USUAL DOSE: See package insert.

Store at controlled room temperature 15°-30° C (59°-86° F).

Caution: Federal law prohibits dispensing without prescription.

Product Code
2210-43

B-32210



ELKINS-SINN, INC. Cherry Hill, NJ 08003-4099

A subsidiary of A. H. Robins Company

Answer:

Generic name: atropine Sulfate

Trade name: None

Dosage strength: 400 mcg/mL(0.4 mg/mL)

Total Volume: 10 x 20 ,L multiple dose vial

Warning or precautions: Poison

How will you store this medication? Store at controlled room temperature

Form of medication? For SC, IM or IV

Any special instructions? None

EXP	LOT	NDC 0641-2210-43 10 X 20 mL Multiple Dose Vials	Each mL contains atropine sulfate 400 mcg (0.4 mg), sodium chloride 9 mg and benzyl alcohol 0.015 mL in Water for Injection. pH 3.0-6.5; sulfuric acid added, if needed, for pH adjustment.
		ATROPINE SULFATE INJECTION, USP	POISON
		400 mcg/mL (0.4 mg/mL)	USUAL DOSE: See package insert. Store at controlled room temperature 15°-30°C (59°-86° F).
		FOR SC, IM OR IV USE	Caution: Federal law prohibits dispensing without prescription. Product Code 2210-43
			B-32210
esi ELKINS-SINN, INC. Cherry Hill, NJ 08003-4099 <small>A subsidiary of A. H. Robins Company</small>			

AMOXIL[®]
125mg/5mL

Directions for mixing: Tap bottle until all powder flows freely. Add approximately 1/3 total amount of water for reconstitution **(total=78 mL);** shake vigorously to wet powder. Add remaining water; again shake vigorously. Each 5 mL (1 teaspoonful) will contain amoxicillin trihydrate equivalent to 125 mg amoxicillin.
Usual Adult Dosage: 250 to 500 mg every 8 hours.
Usual Child Dosage: 20 to 40 mg/kg/day in divided doses every 8 hours, depending on age, weight and infection severity. See accompanying prescribing information.

*Keep tightly closed.
Shake well before using.
Refrigeration preferable but not required.
Discard suspension after 14 days.*

125mg/5mL
NDC 0029-6008-23

AMOXIL[®]
AMOXICILLIN
FOR ORAL
SUSPENSION

100mL
(when reconstituted)

SB SmithKline Beecham



NSN 6505-01-153-3862
Net contents: Equivalent to 2.5 grams amoxicillin.
Store dry powder at room temperature.
SmithKline Beecham Pharmaceuticals
Philadelphia, PA 19101

R_x only



3 0029-6008-23 1

LOT
EXP.

9405793-F

Answer:

Generic name: amoxicillin

Trade name: Amoxil

Dosage strength: 125 mg/ 5 mL

Total Volume: 100 mL when reconstituted

Warning or precautions: None

How will you store this medication? Refrigerate preferred not required

Form of medication? Oral suspension

Any special instructions? Keep tightly closed, shake well before using, and discard after 14 days.

AMOXIL®
125mg/5mL

125mg/5mL
NDC 0029-6008-23

Directions for mixing: Tap bottle until all powder flows freely. Add approximately 1/3 total amount of water for reconstitution. **100 mL (7.0 mL):** shake vigorously to wet powder. Add remaining water; again shake vigorously. Each 5 mL (1 teaspoonful) will contain amoxicillin trihydrate equivalent to 125 mg amoxicillin.
Usual Adult Dosage: 250 to 500 mg every 8 hours.
Usual Child Dosage: 20 to 40 mg/kg/day in divided doses every 8 hours, depending on age, weight and infection severity. See accompanying prescribing information.

AMOXIL®
AMOXICILLIN
FOR ORAL
SUSPENSION

100mL
(when reconstituted)

SB SmithKline Beecham

NSN 695-01-153-3862
Net contents: Equivalent to 2.5 grams amoxicillin.
See accompanying prescribing information.
SmithKline Beecham Pharmaceuticals
Philadelphia, PA 19101

Rx only

LOT
EXP.
9405793-F

3 0029-6008-23 1

NDC 0005-3706-65

**Erythromycin
Ethylsuccinate**
Oral Suspension,
USP

200 mg/5 mL

Each 5 mL
(one teaspoonful)
contains: Erythromycin
Ethylsuccinate equivalent
to 200 mg Erythromycin.

USUAL DOSAGE:
See package circular.

CAUTION: Federal law
prohibits dispensing
without prescription.

Control No.

Exp. Date **12/25/12**
ONE PINT (473 mL)



NDC 0005-3706-65

**Erythromycin
Ethylsuccinate**
Oral Suspension, USP

200 mg/5 mL

SHAKE WELL BEFORE USING

STORAGE: Store in refrigerator to
preserve taste until dispensed.
Refrigeration by patient is not
required if used within 14 days.

This package not for
household dispensing.

Protect from light.
Dispense in amber bottles.

Manufactured by
BARRE-NATIONAL INC.
Baltimore, MD 21207
for
LEDERLE LABORATORIES
DIVISION
American Cyanamid Company,
Pearl River, NY 10965



14214-91 NA6

Answer:

Generic name: ethylsuccinate

Trade name: Erythromycin

Dosage strength: 200 mg/ 5 mL

Total Volume: one pint (473 mL)

Warning or precautions:

How will you store this medication? Store in refrigerator

Form of medication? Oral suspension

Any special instructions? Shake well before using, protect from light, dispense in amber bottles

NDC 0005-3706-65
Erythromycin Ethylsuccinate
Oral Suspension, USP
200 mg/5 mL

Each 5 mL (one teaspoonful) contains: Erythromycin Ethylsuccinate equivalent to 200 mg Erythromycin.

USUAL DOSAGE: See package circular.
CAUTION: Federal law prohibits dispensing without prescription.

Control No.

Exp. Date
ONE PINT (473 mL)

NDC 0005-3706-65
Erythromycin Ethylsuccinate
Oral Suspension, USP
200 mg/5 mL

SHAKE WELL BEFORE USING
STORAGE: Store in refrigerator to preserve taste until dispensed. Refrigeration by patient is not required if used within 14 days.

This package not for household dispensing.

Protect from light. Dispense in amber bottles.

Manufactured by
BARRÉ-NATIONAL INC.
Baltimore, MD 21207
for
LEDERLE LABORATORIES
DIVISION
American Cyanamid Company,
Pearl River, NY 10965

STANDARD
Lederle
PRODUCTS

14214-01 NAB

N 0005-3706-65 3