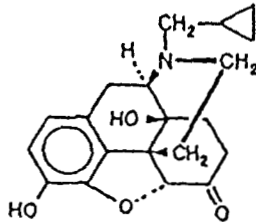


10. ENVIRONMENTAL ASSESSMENT

[CFR 25.31a(b)(4)]

1. DATE: 13 September 1993
2. APPLICANT: Wildlife Pharmaceuticals, Inc.
3. ADDRESS: 1401 Duff Drive, Suite 600  
Fort Collins, Colorado 80524
4. DESCRIPTION OF PROPOSED ACTION: Wildlife Laboratories requests permission to manufacture and distribute a 50 mg/mL formulation of naltrexone hydrochloride sterile injectable in a 20 mL multi-use vial. This formulation is to be used to administer parenterally to members of the family Cervidae that have been immobilized with carfentanil citrate. The product will be produced by Wildlife Pharmaceuticals, Inc. under GMPs and distributed from Wildlife Pharmaceuticals location at Fort Collins, Colorado. The product will be used on confined and free-ranging members of the native and exotic members of the family Cervidae.
5. IDENTIFICATION OF THE CHEMICAL SUBSTANCES THAT ARE TO BE THE SUBJECT OF THE PROPOSED ACTION:

- A. Nomenclature: Naltrexone hydrochloride 17-(cyclopropylmethyl)-4, 5-epoxy-3, 14-dihydroxy-morphinan-6-one hydrochloride
- B. Molecular weight: 377.46
- C. Molecular formulae:  $C_{20} H_{23} NO_4 HCl$
- D. Percentage composition: 5.0% Naltrexone HCl  
0.2% Methyl and propyl paraben in a ratio of 9:1
- E. Structural formula:



- F. Physical description: TREXONIL is a sterile injection which contains naltrexone HCl as the active ingredient. Each mL contains 50 mg of naltrexone HCl, 8.6 mg sodium chloride USP, 2.0 mg methyl paraben and propyl paraben in a ratio of 9:1 and water for injection q.s. ad 1.0 mL. The pH is adjusted with hydrochloride acid or sodium hydroxide.

G. Additives: Methyl paraben, propyl paraben, sodium chloride

H. Impurities: None detected

6. INTRODUCTION OF SUBSTANCES INTO THE ENVIRONMENT: No gaseous, liquid or solid waste substances will be introduced into the environment at the site of production. There are no inactive components that will be emitted to the environment. (See Material Safety Data Sheet - Attachment 2) Attachment #1 to this application is Certification from Wildlife Pharmaceuticals, Inc. that they are in compliance with applicable local, state and federal environmental laws at their manufacturing site in Fort Collins, Colorado. In addition, no substances will be introduced into the environment by Wildlife Pharmaceuticals in the distribution of the finished, sealed, vialled product.

7-11. Not required.

12. LIST OF PREPARERS: W.R. Lance, DVM PhD

B. Zimmerman

13. CERTIFICATION: (Attachment 1)

14. REFERENCES: See Section 8, Safety and Efficacy and Section 3, Labeling. Copies of references cited have been submitted to the file.



Wildlife Pharmaceuticals

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CERTIFICATION OF COMPLIANCE

I certify that Wildlife Pharmaceuticals, Inc. is in compliance with federal, state and local environmental and occupational requirements, as follows:

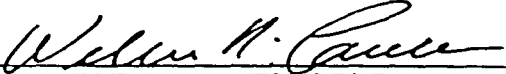
Environmental


40 CFR 60 & 61	Environmental Protection Agency. Clean Air Act.
13 CR 6, 6-90 C.R.S. 1973, as amended	Colorado Department of Health. Air Quality Control Commission. Colorado Air Quality Control Act.

Occupational

29 CFR 1910 Subpt Z 29 CFR 1910.20(e)	Occupational Safety & Health Administration. General Industrial Standards.
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The information presented is true, accurate and complete to the best knowledge of Wildlife Pharmaceuticals.

  
\_\_\_\_\_  
W.R. Lance, DVM PhD  
President  
7 June 1994

  
\_\_\_\_\_  
Notary Public  
My commission expires October 26, 1996

## NALIREXONE HYDROCHLORIDE

Material Safety Data Sheet

Effective Date: 04/24/86

Mallinckrodt, Inc.  
P.O. Box 5439  
St. Louis, Mo. 63147Emergency Telephone Number  
314/539-1600

Supercedes : 02/03/86

Product Identification:Synonyms: 17-(cyclopropylmethyl)-4,5-epoxy-3, 14 dihydroxy-morphinan-6-one  
hydrochloride; narcotic antagonistChemical Formula:  $C_{20}H_{23}NO_4 \cdot HCl$ 

Formula CAS No.: 16676-29-2

Molecular Weight: 377.46

Hazardous Ingredients: Naltrexone Hydrochloride.

PRECAUTIONARY MEASURES

WARNING MAY BE HARMFUL IF SWALLOWED.

Avoid breathing dust.  
Keep container closed.  
Use with adequate ventilation.  
Wash thoroughly after handling.EMERGENCY/FIRST AID

If large amounts were swallowed, give water to drink and get medical advice. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty.

SEE SECTION 5.

DOT Hazard Class: Not Regulated

Physical DataSECTION 1

Appearance:	White powder
Odor:	Odorless.
Solubility:	Soluble in water.
Boiling Point:	No information found.
Melting Point:	274-276°C (525-529°F)
Specific Gravity:	ca.1.3
Vapor Density (Air=1):	No information found.
Vapor Pressure (mm Hg):	No information found.
Evaporation Rate:	No information found.

Health Hazard Information

SECTION 5

A. Exposure/Health Effects

Inhalation: Inhalation of dust may irritate the respiratory tract.

Ingestion: Narcotic antagonist. Although not considered highly toxic, the acute toxic syndrome in non-opioid dependent subjects is not well defined. May produce constricted pupils. May cause difficult sleeping, anxiety, nervousness, abdominal pain, vomiting, and headache. Large doses may cause liver damage.

Skin contact: Not expected to cause any adverse health effects.

Eye contact: No adverse effects expected but dust may cause mechanical irritation.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: Produces acute withdrawal symptoms in individuals physically dependent on opioids. Persons with impaired kidney or liver function may be more susceptible to the effects of the substance.

B. FIRST AID

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: If large amounts were swallowed, give water to drink and get medical advice.

Skin contact: Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

C. TOXICITY DATA (RTECS, 1982)

No LD50/LC50 information found relating to normal routes of occupational exposure. Mutation references cited. Information in drug literature indicates this substance has been shown to have embryocidal effects in experimental animals at large doses.

Addendum to Material Safety Data Sheet

REGULATORY STATUS

Hazard Categories for SARA Section 311/312 Reporting

<u>Acute</u>	<u>Chronic</u>	<u>Fire</u>	<u>Pressure</u>	<u>Reactive</u>
X				

<u>Products or Components of Product:</u>	<u>CERCLA Sec.103 RQ lbs</u>	<u>RCRA Sec. 261.33</u>	<u>SARA EHS Sec. 302 RQ</u>	<u>SARA EHS Sec. 302 TPQ</u>	<u>SARA 313 Chemicals Name Chemical List Category</u>
NALITREXONE HYDROCHLORIDE (16676-29-2)	No	No	No	No	No No

SARA Section 302 EHS RQ: Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

SARA Section 302 EHS TPO: Threshold Planning Quantity of Extremely Hazardous Substance. An asterick (\*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.

SARA Section 313 Chemicals: Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.

CERCLA Sec. 103: Comprehensive Environmental Response, Compensation and Liability Act (Superfund). Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4

RCRA: Resource Conservation and Reclamation Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33