CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

40251

BIOEQUIVALENCY REVIEW(S)

AUG 14 1997

Trihexyphenidyl HCl
2 mg/5 ml elixir
NDA #40-251
Reviewer: J. Lee
40251W.397

Mikart, Inc.
Atlanta, Georgia
Submission date:
March 10, 1997

Review of a Request for Waiver

The sponsor has submitted an application for trihexyphenidyl HCl 2 mg/5 ml elixir and is requesting waiver of an in-vivio study under 21 CFR 320.22 (b)(3). The sponsor claims that their test product is an oral elixir containing the same active ingredients and the same strength as the brand product, Artane® (Lederle), and does not contain any inactive ingredients that would significantly affect absorption of the active moiety.

The drug product is AA listed and is indicated in adjunct treatment of all forms of parkinsonism.

Below is a formulation comparison of the test/reference products:

	Mikart per 5 ml	Artane per 5 ml
Trihexyphenidyl HCl	2 mg	2 mg
Sorbitol solution	%	%
Citric acid	%	%
Alcohol	%	%
Methylparaben	%	%
Propylparaben	%	%
Nat. & Art. lime peppermint flavor	%	
Lime flavor		%

Comment:

1. This application meets the requirements of 21 CFR 320.22 (b)(3).

Recommendation:

1. The Division of Bioequivalence finds that the information submitted by Mikart, Inc. demonstrates that trihexyphenidyl HCl 2 mg/5 ml elixir falls under 21 CFR 320.22 (b)(3) of Bioavailability/Bioequivalence Regulations. The Division of Bioequivalence recommends that the waiver of an in-vivo bioavailability study be granted. Mikart's test product is deemed bioequivalent to Artane® 2 mg/5 ml elixir manufactured by Lederle

Laboratories.

/S/ 8/13/97

J. Lee
Division of Bioequivalence
Review Branch II

/S/

RD INITIALED SNERURKAR
FT INITIALED SNERURKAR 8/14/1997

JLee/jl/ 08-13-97

cc: NDA #40-251 (original, duplicate), HFD-630, HFD-655 (Lee, Patnaik), FD-650 (Fleischer), Drug File, Division File

OFFICE OF GENERIC DRUGS
DIVISION OF BIOEQUIVALENCE

ANDA/AADA # 40-251 SPONSOR: Mikart
DRUG: ~~Trilphen~~ trihexyphenidyl HCl
DOSAGE FORM: Elixir
STRENGTHS/(S): 2mg/5ml
TYPE OF STUDY: Single_ Multiple_ Fasting _ Fed _ N/A
~~STUDY SITE~~:

N/A

~~STUDY~~ SUMMARY:

Waiver granted per 21CFF 320.22(b)(3)

~~DISSOLUTION~~:

N/A

PRIMARY REVIEWER: Jenny Lee BRANCH: II

INITIAL: /S/ DATE 8/13/97

TEAM LEADER: S. Nerurkar, Ph.D BRANCH: II

INITIAL: /S/ DATE 8/14/1997

DIRECTOR, DIVISION OF BIOEQUIVALENCE: Nicholas Fleischer, Ph.D

INITIAL: /S/ DATE 10/24/97

DIRECTOR, OFFICE OF GENERIC DRUGS:

INITIAL: _____ DATE _____

JUN 24 1999

Comments to be conveyed to the Applicant.

ANDA: 40-251 FIRM: Mikart, Inc.

DRUG PRODUCT: Trihexyphenidyl Hydrochloride Elixir, USP

The deficiencies presented below represent MINOR deficiencies.

Deficiencies:

1. We recommend the inclusion of a Fill Volume Test (a target and range) to be incorporated into the in-process tests and in the finished product specifications. Please provide us updated copies of the same.

2. We recommend the USP <61>, Microbial Limit Test to be included for release testing (Include Yeast and mold count also). Please revise your specifications to reflect this change.

Comment:

Please be aware that DMF is inadequate. Deficiencies in the DMF have to be corrected prior to the approval of the ANDA.

Sincerely yours,

/S/

Florence S. Fang
Director
Division of Chemistry II
Office of Generic Drugs
Center for Drug Evaluation and Research