

AR226-1663

BEST COPY AVAILABLE

INTEROFFICE MEMORANDUM

Date: 20-Oct-1994 11:00am
From: VMSMail User BUXTONLW
BUXTONLW@ISDCDCVM1@CDCIL1@MRGATE
Dept:
Tel No:

TO: KENNEDY@HSEKXVAX@MRGATE

Subject: MP in Shaving Product

Date: 10/20/94 10:57:45
To: CAVANAUGH--ISDCDCVM1 Robert J. Cavanaugh

from: Bill Buxton, RUPP Reg Affairs, CS-712-110 (99-94658)
Subject: MP in Shaving Product

Hi Garry, I'm asking Garry Kennedy to comment on persistence of C-8. The term "bio-accumulate" is not appropriate for C-8. It does not accumulate in tissue or fat. It is simply eliminated very slowly (over years). Hence the term "persistent".

Best regards, Bill.

L. Wm. Buxton, DuPont Fluoroproducts, Regulatory Affairs >
> mail: R.C.Box 80712, Wilmington DE 19880-0712, USA >
> voice phone: 302-999-4658. fax: 302-999-4638 >

*** Forwarding note from CAVANAUGH--ISDCDCVM1 10/20/94 10:28 ***

To: MARTINW--ISDCDCVM1 WAYNE H MARTIN BUXTONLW--ISDCDCVM1 L. William Buxton

From: Robert J. Cavanaugh 999-4385
Subject: MP in Shaving Product

B.C. Johnson is interested in putting a micropowder into Edge shaving gel for smoother shaves. Greg and I reviewed our concerns with then on HF, acid end groups and C-8. The best grade for this application would be MP-1600. Do you have data on the rate of C-8 elimination from the body? I was thinking that we could calculate how much will bio-accumulate to see if there is any feasibility at all of doing this. They will run some preliminary tests to see if this approach even works. The assumptions I would use are shown below. Do they look reasonable to you?

- 1% MP-1600 in product
- 2% conc C-8 in MP-1600
- 1 gram Edge per application (they say 5-10 grams is typical)
- 100% absorption of the C-8 via skin

Thus the rate of addition of C-8 would be 2.0×10^{-5} grams per day. How does this compare with the elimination rate?

cc: DEVENSDA--ISDCDCVM1 David W. DeVos BELLENGA--ISDCDCVM1 Gregory A. Bellen
ADATON--ISDCDCVM1 Yusef Adato

GK001446

GK001446

000179

-----TOP-----

HERE IS MY SAMPLE CALCULATION WHICH I THINK SUGGESTS THAT WE MOVE SLOWLY INTO THIS APPLICATION.

- 1) C-9 IN EDGE = 20PPM, OR 200 MICROG/10 GRAM EDGE APPLICATION
- 2) 100% DERMAL TRANSFER EQUALS DAILY DOSE OF 200 MICROG/DAY
- 3) OUR CEG IS 0.0003 MG/M3; DAILY AIR EXCHANGE OF 20 M3 PRESENTS 0.0060MG OR 6 MICROGRAMS TO THE LUNG.
- 4) THE DAILY ALLOWED INHALATION DOSE THEN BECOMES (IF THIS MATH IS RIGHT) ABOUT 30-35 TIMES LESS THAN THE AMOUNT PRESENTED TO THE SKIN IN ONE APPLICATION OF EDGE.

5) ANOTHER WAY TO LOOK AT THROUGH BLOOD KINETICS

6) 70KG PERSON IS ABOUT 7% BLOOD OR 5 KG BLOOD

7) C-9 DOES GET TO AND STAY IN BLOOD-ASSUME TOTAL TRANSFER FROM ONE EDGE APPLICATION TO BLOOD- 200 MICROG/5 KG BLOOD

40 MICROG/KG = 40 PPM

8) WITH A 1/2 LIFE IN YEARS, SAY 3 AS BEST CURRENT ESTIMATE; STEADY STATE WOULD BE IN THE PPM RANGE (I DIDN'T, CAN'T DO THAT CALCULATION BUT 200 MICROG /DAY WITH LITTLE CLEARANCE WOULD GET UP THERE IN A HURRY.

YOU MIGHT WANT TO GO OVER AND SEE IF THIS MAKES SENSE TO YOU, BUT IT GETS ME CLOSE TO OUT OF BOUNDS IN A HURRY.

GK001447

GK001447

000180