

2-Imidazolidinone, 4,5-dihydroxy-1,3-bis(hydroxymethyl)-methylated – Comments of Environmental Defense

(Submitted via Internet 6/28/02)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for 2-imidazolidinone, 4,5-dihydroxy-1,3-bis(hydroxymethyl)-methylated.

2-Imidazolidinone, 4,5-dihydroxy-1,3-bis(hydroxymethyl)-methylated is a data-poor chemical, while its non-methylated analog is relatively data rich. Data for the non-methylated analog has been previously submitted and reviewed as part of the OECD/SIDS program. Therefore, the Synthetic Urea Resins Group of the Synthetic Organic Chemical Manufacturers Association has submitted a Robust Summary/Test Plan for 2-imidazolidinone, 4,5-dihydroxy-1,3-bis(hydroxymethyl)-methylated (CAS# 68411-61-4) based on data obtained with its non-methylated analog (CAS#1854-26-8). These are very closely related chemicals. Moreover, though it is not mentioned in the Test Plan, 2-imidazolidinone, 4,5-dihydroxy-1,3-bis(hydroxymethyl)-methylated would be expected to be very rapidly metabolized via O-demethylation to the non-methylated analog in all mammalian systems as well as in fish and many other invertebrates. Thus, exposure to 2-imidazolidinone, 4,5-dihydroxy-1,3-bis(hydroxymethyl)-methylated would be equivalent to exposure to the non-methylated analog. As a result, toxicity studies of 2-imidazolidinone, 4,5-dihydroxy-1,3-bis(hydroxymethyl)-methylated would be expected to yield results very similar to those seen with the non-methylated analog. Studies of the non-methylated analog indicate that on exposure it not metabolized, but it is rapidly excreted as the parent compound. Further, available data indicate that it has very low toxicity in all systems, does not persist in the environment, it is not a mutagen and does not induce developmental toxicity.

We do have one potential concern about the adequacy of the data for the non-methylated analog with regard to reproductive toxicity (and thus by extrapolation the data on this endpoint for the methylated compound). Specifically, in our view examination of the reproductive organs following a repeat-dose study is not really an adequate assessment of reproductive toxicity. However, we recognize that the SIDS program guidelines state that "when a 90-day repeated dose study is available and demonstrates no effect on reproductive organs, in particular the testes, then a developmental study ... can be considered as an adequate test to complete information on reproduction/developmental effect." As a result, and given the low toxicity of the non-methylated analog in all other systems based on the testing conducted to date, we concur that no additional reproductive testing is needed.

Thank you for this opportunity to comment.

Hazel B. Matthews, Ph.D.
Consulting Toxicologist, Environmental Defense

Karen Florini
Senior Attorney,

Environmental Defense

RECEIVED
EPA/OPPT/NEIC

02 JUL -2 PM 12:46