2-Butanone, 3-Methyl - Comments of Environmental Defense

(Submitted via Internet 7/16/02)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for 2-Butanone, 3-Methyl (CAS # 563-80-4).

2-Butanone, 3-methyl or methyl isopropyl ketone (MIPK) is used primarily in industrial applications as a chemical intermediate and as an industrial solvent. Its chemical structure is similar to that of other ketones, e.g. acetone and methyl ethyl ketone, which are used in industry and in consumer products. Based on the relatively extensive studies conducted to date on these chemicals, it appears that they have little acute or chronic toxicity. This general class of chemicals, which are without structural alerts, are readily soluble in water and degrade in the environment. Available data indicate that MIPK is no exception in that it has low toxicity in tests performed to date, readily degrades in the environment, does not appear to be a mutagen, does not disrupt development and is not toxic to the reproductive system. MIPK does have appreciable toxicity to algae and thus has been labeled “harmful to aquatic organisms” and would be classified as having a “moderate concern level” according to EPA’s assessment criteria if released into the environment. However, since quantities less than that which might occur in the case of a spill would be expected to rapidly degrade toxicity to algae is unlikely to be a problem under normal use.

The Eastman Chemical Company has prepared a very concise but adequate Robust Summery/Test Plan for MIPK. Data to address required SIDS elements have been developed both through computer estimation and in the laboratory. Given the simple molecular structure of MIPK and the availability of experimental data on very similar ketones, computer estimates of properties and fate of MIPK are anticipated to be quite accurate. Most experimental data were generated through GLP studies and are also quite acceptable. Individual studies address each of the SIDS elements and are well described in the Robust Summary, thus, we find the Robust Summary/Test Plan for MIPK to be acceptable.

Note:
This Test Plan does not include a figure showing the molecular structure of MIPK. That is probably not necessary, however, as anyone with a background in chemistry will be able to determine the structure based on the name.

Thank you for this opportunity to comment.

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

Karen Florini
Senior Attorney, Environmental Defense