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Subject: Environmental Defense comments on Aromatic Terpene Hydrocarbons

(Submitted via Internet 1/27/03 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov, boswell.karen@epa.gov, chem.rtk@epa.gov, MTC@mchsi.com, tadams@therobertsgroup.net, and tadams@chemintox.com)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for the Aromatic Terpene Hydrocarbon Category.

The Terpene Consortium of the Flavor and Fragrance High Production Volume Consortia has submitted a Robust Summary/Test Plan to address available data and testing needs for the Aromatic Terpene Hydrocarbon Category. According to the sponsor, the primary member of this category, p-cymene, occurs naturally as a volatile constituent of many plants and is thus consumed in the normal diet and inhaled as a result of its natural release into the atmosphere by plants. The sponsor further indicates that it is found in significant concentrations in most spices and is permitted as a direct food additive by the US Food and Drug Administration. Thus, it would appear that considerable or most human and environmental exposure to p-cymene comes from natural sources.

The Terpene Consortium has submitted a thorough and well-organized Test Plan that effectively summarizes an extensive and well-organized Robust Summary for p-cymene and its closely related structural analog, cumene. Cumene has been the subject of considerable toxicological testing, because in contrast to p-cymene, cumene is a major industrial chemical. We consider the experimental and calculated data describing the chemical/physical properties, environmental fate and toxicology available data for p-cymene, when supported by extrapolation from the extensive data presented for cumene, to adequately address the SIDS elements for p-cymene. However, because this Robust Summary/Test Plan is intended to cover the Aromatic Terpene Hydrocarbon Category, it should fully represent more chemicals than p-cymene. Because of their very similar chemical structures, we strongly support the extrapolation of data developed for cumene to support conclusions drawn for p-cymene. However, we do not believe that cumene should be considered a member of this category. Cumene is an industrial chemical produced at the rate of several billion pounds annually and should be addressed independently.

We also question why there is no mention of other members of this "Category" in the Robust Summary/Test Plan. It is assumed that the category contains additional compounds. Additional members of the category may be structurally similar to p-cymene and may be similarly naturally occurring, non-toxic, biodegradable and likely to present little risk to human health or the environment; however, they have not been identified by the sponsor. If this test plan is to be applied to the entire category of Aromatic Terpene Hydrocarbons, all the members of the category should be identified. Further, any available data for these additional chemicals should be described and relevant calculations or extrapolation of data from the other closely related chemicals should be conducted and presented. If necessary, actual testing of other members of the category should be

conducted in order to address the SIDS elements for these compounds. Barring this additional effort, we believe that this test plan and robust summary should not be presented as applying to a category but rather to the individual compound p-cymene.

Thank you for this opportunity to comment.

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