

no toxicological data or incomplete toxicological data.

Waste constituent concentrations are not a factor in the addition of toxic substances to appendix VIII. The criteria for additions to appendix VIII (40 CFR 261.11(a)(xi)) direct the Agency to add substances "shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms." While the Agency has readily acknowledged some gaps in the available toxicity studies, the Agency need have but one scientific study meeting the § 261.11 criteria and in some cases developed empirical structural activity relationships (SAR) where direct toxicological testing was not available. Furthermore, the Agency views its SAR analysis as scientific studies for the purpose of adding substances to appendix VIII. Nevertheless, the Agency has reviewed the available toxicity data for each of the additions to appendix VIII and concludes that for 12 substances the toxicity data in the record is inadequate for final action. Final action on these 12 substances is being deferred to allow notice and comment on additional quantitative structure activity relationships (QSAR), developed for these chemicals. EPA plans to repropose these substances at a future date. The results of these new studies are presented in section IV.C.

Several commenters stated that EPA should not propose constituents for addition to appendix VIII at the same time that it is listing them as the constituents of concern for a hazardous waste listing. EPA believes it is proper to consider the expansion of appendix VIII and additional hazardous waste listings together. Constituents are added to appendix VIII if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic, or teratogenic effects on human or other life forms. The Agency feels that each of the constituents being added to appendix VIII meets at least one of these criteria. The Agency solicited and received comments on the proposed additions to appendix VIII, and after considering these comments has concluded that the additions being finalized are appropriate. There is no regulation or statute that prohibits the simultaneous hazardous waste listing and appendix VIII addition. The Agency believes that listing the wastes and making the additions to appendix VIII simultaneously is an efficient system for implementing the hazardous waste program that allows for meaningful public participation. Simultaneous listing and addition to appendix VIII is a long-standing practice of the Agency.

Several commenters believed the Agency proposed various additions to appendix VIII (including acetone, hexane, methanol, methyl isobutyl ketone, and xylene) without considering the far reaching impact on numerous exempt waste streams. Commenters felt that inclusion of these solvents on appendix VIII may affect the regulatory status of wastes at facilities not involved in production of carbamates because these solvents are so widely used throughout the chemical manufacturing industry and believe that the Agency has not considered the wide ranging impact of this action. Commenters also felt that the addition of these solvents to appendix VIII based on their toxicity contradicts the original classification of these solvents as hazardous due solely to ignitability in the F003 listing. Commenters believe that adding the toxic label to these solvents causing them to be considered toxic in addition to ignitable will expand corrective action implementation and may expand state restrictions based on blanket application of appendix VIII.

With regard to the solvents acetone, hexane, methanol, methyl isobutyl ketone, and xylene, commenters specifically requested clarification of whether or not these solvents, when discarded as F003 spent solvents, which were originally listed only basis of their ignitability, would now be considered toxic and hence no longer able to be exempt under 40 CFR 261.3(a)(2)(iii). This section of the CFR specifies that a waste is not a hazardous waste if it is a mixture of a solid waste and hazardous waste that is listed solely for one or more of the characteristics and the resultant mixture no longer exhibits the any of a hazardous wastes characteristics. Commenters believed the F003 wastes would now be both toxic and ignitable should the above solvents be listed in appendix VIII.

The Agency believes the addition of these solvents to appendix VIII would not have directly changed the regulatory management of F003 wastes. One commenter, however, correctly noted that the addition of these solvents to appendix VIII would eliminate the 264.340(b) exemption of incinerators, which burn only characteristically hazardous wastes, from trial burn requirements. This exemption allows incinerators that burn only characteristically hazardous wastes such as ignitable wastes do not need to analyze for these constituents as required in 40 CFR 264.31 or meet the closure requirements of 264.351. As noted in the previous section, the Agency has finalized only those substances which presented a hazard in

the multipathway analysis. As a result, the Agency has not finalized the addition of the solvents acetone, hexane, methanol, methyl isobutyl ketone, and xylene. The Agency believes that the additions to appendix VIII as amended do not have this impact. The Agency also believes that changes to the current regulatory structure for F003 solvents and characteristic waste incineration are beyond the narrow scope of the carbamate listing determinations.

With regard to the expansion of state restrictions based on blanket application of appendix VIII and other changes in state requirements resulting from this rule, states are free to impose more stringent regulations at any time. The potential for state action beyond the minimum federal RCRA requirements are not controlled by the Agency.

G. P Listings

Several commenters challenged the basis for including several wastes as acutely hazardous wastes and presented additional toxicity data to support their position. As well, some commenters believe that the proposed P and U listings were not adequately supported by the administrative record.

After evaluation of comments received, four wastes (bendiocarb, thiophanate-methyl, thiodicarb, and propoxur), proposed for addition to 40 CFR 261.33(e) as acutely hazardous wastes, are instead being added to 40 CFR 261.33(f) as toxic wastes. In each case, the Agency found that these four wastes did not meet the § 261.11(a)(2) criteria for listing in § 261.33(e). The Agency disagrees with the commenter's assertion regarding the administrative record. The Agency criteria for including a waste on 40 CFR 261.33(e) are based on toxicity benchmarks that are clearly presented in 40 CFR 261.11(a)(2). The applicable toxicity data for the proposed wastes was presented in the proposed rule (59 FR 9808). As a result, the Agency contends that all the information used to make the listing decisions regarding P wastes was presented in the public record.

Only one comment was received relative to the carbamate wastes proposed in response to the 1984 Michigan Petition. Eight carbamate waste listings were proposed in response to a petition by the State of Michigan to include 109 chemicals to the lists in 40 CFR § 261.33 (49 FR 49784, December 21, 1984). This rule was never finalized. The petitioner argued that bendiocarb should be listed as a P-waste based on an oral mammalian toxicity of 34–64 mg/kg. The Agency agrees that bendiocarb's