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TITLE: Recommended Toxicological Assessment of Dibenzofuran

DATE

EFFECTIVE: 1997

KEYWORDS: Toxicity value, dibenzofuran, non-substituted dibenzofuran, substituted dibenzofurans, halogenated dibenzofuran, 2,4,5 trichlorophenol, quantitative risk assessment.

RULE: OAC Rule 3745-300-09 (I)

QUESTION: Is a toxicological assessment recommended for dibenzofuran?

ANSWER: The Ohio EPA Division of Emergency and Remedial Response (DERR) at this time does not recommend a toxicity value for the quantitative assessment of dibenzofuran. The risk posed by non-substituted dibenzofuran is not considered substantial and should be discussed qualitatively in an uncertainty analysis, which is part of the Risk Assessment report described in Paragraph (I) of Rule 3745-300-09, the Property-Specific Risk Assessment Rule.

However, the presence of dibenzofuran may be indicative of the presence of substituted forms of dibenzofurans and related molecules.

The VAP emphasizes the importance of **analysis** for substituted, halogenated dibenzofuran and dibenzodioxin compounds when the dibenzofuran is present at a location as the result of any of the following circumstances:

- (1) The application of herbicides containing 2,4,5 trichlorophenol;
- (2) The release of chemical wastes from processes for which 2,4,5 trichlorophenol was a synthetic intermediate;
- (3) The incineration of municipal and industrial wastes.

These compounds, including mono-, di-, tri-, tetra-, penta-, hexa-, hepta- and octa-chloro-dibenzofurans and similarly substituted dibenzodioxins, are not listed on the target compound list of SW-846 methods, and may require special performance-based methods. If one or more above conditions described as favorable for the production of substituted dibenzofurans apply, analysis for these substituted forms should be performed, and a quantitative risk

assessment performed, using Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p Dioxins and Dibenzofurans (CDDs and CDFs) and 1989 Update (EPA/625/3-89/016; March 1989; the toxicity equivalency factors used should be those described as I-TEFs/89 in Table 2 of Part II, the 1989 update, of this document).

SUMMARY:

A toxicological assessment is not recommended for dibenzofuran. However, if conditions favorable for the production of substituted dibenzofurans apply, laboratory analysis for these substituted forms should be performed, and a quantitative risk assessment conducted.

**OHIO EPA
CONTACT:**

For any questions concerning this issue, please contact the VAP central office at (614) 644-2924.