**Section 218.110 Vapor Pressure of Organic Material or Solvent**

a) If the organic material or solvent consists of only a single compound, the vapor pressure shall be determined by ASTM Method D2879-86 (incorporated by reference in Section 218.112 of this Part) or the vapor pressure may be obtained from a publication such as: Boublik, T., V. Fried and E. Hala, "The Vapor Pressure of Pure Substances," Elsevier Scientific Publishing Co., New York (1973); Perry's Chemical Engineer's Handbook, McGraw-Hill Book Company (1984); CRC Handbook of Chemistry and Physics, Chemical Rubber Publishing Company (1986-87); and Lange's Handbook of Chemistry, John A. Dean, editor, McGraw-Hill Book Company (1985).

b) If the organic material or solvent is in a mixture made up of both organic material compounds and compounds which are not organic material, the vapor pressure shall be determined by the following equation:



where:

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| --- | --- | --- |
| Pom | = | Total vapor pressure of the portion of the mixture which is composed of organic material; |
| n | = | Number of organic material components in the mixture; |
| i | = | Subscript denoting an individual component; |
| Pi | = | Vapor pressure of an organic material component determined in accordance with subsection (a) of this Section; |
| Xi | = | Mole fraction of the organic material component of the total organic mixture. |

 c) If the organic material or solvent is in a mixture made up of only organic material compounds, the vapor pressure shall be determined by ASTM Method D2879-86 (incorporated by reference in Section 218.112 of this Part) or by the above equation.

(Source: Amended at 20 Ill. Reg. 14428, effective October 17, 1996)