FACT SHEET

Methyl Ethyl Ketone

CAS #: 78-93-3

This fact sheet provides a summary of the Development Support Document (DSD) created by the TCEQ Toxicology Division (TD) for the development of Regulatory Guidelines (ESLs, AMCVs and ReVs) for ambient exposure to this chemical. For more detailed information, please see the DSD or contact the Toxicology Division by phone (1-877-992-8370) or e-mail (tox@tceq.texas.gov)

What is methyl ethyl ketone?

Methyl ethyl ketone is a flammable, colorless liquid and is very soluble in water and all common industrial organic solvents. Methyl ethyl ketone is used as a solvent in the surface coating industry, in the dewaxing of lubricating oils, and in the manufacture of colorless synthetic resins, artificial leather, rubbers, lacquers, varnishes, and glues. Methyl ethyl ketone is seldom used alone in industrial applications; it is usually found in mixtures with acetone, ethyl acetate, n-hexane, toluene, or alcohols. Synonyms for methyl ethyl ketone include 2-butanone, MEK, ethyl methyl ketone, and methyl acetone.

How is methyl ethyl ketone released into ambient air?

Methyl ethyl ketone may be released into the air via the exhaust from cars and trucks, waste from manufacturing plants, and from natural sources such as from forest trees. It is also released into the air during its production, transport, storage, or use in commercial products.

How can methyl ethyl ketone affect my health?

Permitted levels of methyl ethyl ketone should not cause adverse health and welfare effects. Acute inhalation exposure to high concentrations in humans has been reported to produce irritation of the eyes, nose, and throat. Central nervous system depression, headache, and nausea have also been reported following acute inhalation exposure to humans. Exposure to high concentrations has also been found to irritate respiratory tissues of animals. Chronic inhalation exposure has been reported to produce effects to the nervous system. Under the United States Environmental Protection Agency's cancer guidelines, data are inadequate for an assessment of human cancer potential for methyl ethyl ketone.

Is methyl ethyl ketone odorous or harmful to plants?

Methyl ethyl ketone has an acetone-like odor or sweet and sharp odor. Three vegetative studies were identified; however, data were not sufficient to calculate an air concentration. No data were found regarding long-term vegetative effects.

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Why does the TCEQ set Regulatory Guidelines for methyl ethyl ketone?

The TCEQ has set various air quality guideline concentrations (ESLs, AMCVs, and ReVs) to protect human health and welfare. Please see Definitions of ESLs, ReVs, and AMCVs located on the TCEQ DSD webpage for more information. The air quality guideline concentrations for ethylbenzene have been designed to protect the general public from short-term and long-term adverse health and welfare effects. The general public includes children, the elderly, pregnant women and people with pre-existing health conditions. If you would like to know more about the specific ESLs, AMCVs and ReVs developed, what the values are and what they are used for, please see the DSD.