FACT SHEET

Methanol

CAS Numbers: 67-56-1

This fact sheet provides a summary of the Development Support Document (DSD) created by the TCEQ 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 TD by phone (1-877-992-8370) or e-mail (tox@tceq.texas.gov).

What is methanol?

Methanol is a colorless liquid with an alcoholic odor. Methanol occurs naturally in humans, animals and plants. It is a normal byproduct of body metabolism and is found in the exhaled air, urine, blood, and saliva. Commercially, it is used in paint removers, windshield washer fluid, automotive fuel, stove fuels, antifreeze, embalming fluids, and some paints. Methanol is also known as methyl alcohol; carbinol; methylalkohol; wood alcohol; methyl hydrate; methyl hydroxide; monohydroxymethane; and methylol.

How is methanol released into ambient air?

Methanol can be released into the air from uses of certain paint strippers, aerosol spray paints, wall paints, windshield wiper fluid, and small engine fuel. Methanol released to the environment is expected to volatilize to the atmosphere, where it will break down to other chemicals. Methanol can contribute to the formation of photochemical smog when it reacts with other volatile organic carbon substances in air.

How can methanol affect my health?

Methanol enters the body when breathed in with contaminated air. It does not remain in the body due to its breakdown and removal in expired air or urine. Permitted levels of methanol should not cause adverse health and welfare effects. Methanol produces subtle effects on the central nervous system (CNS) and caused ocular and mucous membrane irritation at high concentrations. Laboratory studies show that exposure to relatively high concentration of methanol in air cause effects including respiratory and reproductive/developmental effects in animals. There are no human or animal studies indicating methanol has a potential to be a human carcinogen. Methanol is not currently listed by the International Agency for Research on Cancer (IARC) or other government agencies (e.g., USEPA, or National Toxicology program) as carcinogenic.

Is methanol odorous or harmful to plants?

Methanol has an alcoholic odor at moderate levels. Methanol has not been shown to have an adverse effect on plants.

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Why does the TCEQ set Regulatory Guidelines for methanol?

The TCEQ has set various air quality guideline levels (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 levels for methanol have been designed to protect the general public from short-term and long-term adverse health and welfare effects. The general public includes sensitive populations such as children, the elderly, pregnant women and people with preexisting 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.