



FACT SHEET

Carbon Disulfide

CAS #: 75-15-0

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 TD by phone (1-877-992-8370) or e-mail (tox@tceq.state.tx.us).

What is Carbon Disulfide?

Carbon disulfide is a clear, colorless liquid with a sweet, pleasant, ethereal odor. It is used in the production of a number of chemicals, and has been used for soil fumigation and insect control in stored grain. Carbon disulfide is also a by-product of some industrial processes and is a minor component of the waste gases emitted from the processing of sour gas. Synonyms for carbon disulfide include carbon sulfide, dithiocarbonic anhydride, sulphocarbonic anhydride, and Weeviltox.

How is Carbon Disulfide released into ambient air?

Carbon disulfide may be released into the air during the production of other chemicals, during the fumigation process, as a by-product of some industrial processes like coal blast furnaces and oil refining, or during the processing of sour gas. Natural sources of carbon disulfide include wetlands, oceans, volcanic and geothermal activity, and microbial activity in soil.

How can Carbon Disulfide affect my health?

Permitted levels of carbon disulfide should not cause adverse health and welfare effects. A number of both human and animal studies have been conducted on the inhalation toxicity of carbon disulfide. Carbon disulfide has been shown to adversely affect the central nervous system in both short- and long-term studies. Short-term studies have shown that carbon disulfide can also affect the way the body metabolizes alcohol and the way the liver handles carbohydrates. There is no definitive evidence that carbon disulfide causes cancer so a chronic cancer value was not developed. Carbon disulfide has not been classified as causing cancer by the International Agency for Research on Cancer, the United States Environmental Protection Agency, the American Conference of Industrial Hygienists, or the National Toxicology Program.

Is Carbon Disulfide odorous to humans or harmful to plants?

Carbon disulfide has a sweet, pleasant, ethereal odor, which can be detected at relatively low concentrations. Carbon disulfide has been shown to adversely affect vegetation, but only at concentrations much higher than those shown to cause an odor or adverse health effects.



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Why does the TCEQ set Regulatory Guidelines for Carbon Disulfide?

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 carbon disulfide 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 on the TCEQ website.