

FACT SHEET

n-Butyraldehyde

CAS Numbers: 123-72-8

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 n-butyraldehyde?

n-Butyraldehyde is a highly flammable, colorless liquid with a characteristic pungent odor. n-Butyraldehyde is used as an intermediate in the production of synthetic resins, rubber accelerators, solvents, plasticizers, and high molecular weight polymers. It is also used as a synthetic flavoring agent in foods such as alcoholic and non-alcoholic beverages, ice cream, candy and baked goods." N-Butyraldehyde is also known as butal; butaldehyde; butalyde; butanal; butanaldehyde; butyric aldehyde; butyl aldehyde; butyral.

How is n-butyraldehyde released into ambient air?

n-Butyraldehyde can be released into the air from industrial sources and main stream cigarette smoke. n-Butyraldehyde released to the environment is then oxidized to form butyric acid.

How can n-butyraldehyde affect my health?

n-Butyraldehyde enters the body when breathed in with contaminated air. Permitted levels of n-butyraldehyde should not cause adverse health and welfare effects. n-Butyraldehyde is of low acute toxicity by oral, dermal, or inhalation routes of exposure. Acute exposure to high ambient concentration can cause irritation of the eyes, nose, and throat with narcosis or anesthesia. The effect of most probable concern from chronic low level exposure is respiratory tract irritation. There are no human or animal studies indicating n-butyraldehyde has a potential to be a human carcinogen. n-Butyraldehyde 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 n-butyraldehyde odorous or harmful to plants?

n-Butyraldehyde has an arid pungent odor at low levels. No information regarding the vegetative toxicity of n-butyraldehyde was found.

Why does the TCEQ set Regulatory Guidelines for n-butyraldehyde?

The TCEQ has set various air quality guideline levels (ESLs, AMCVs and ReVs) to protect human health and welfare. Please see the Regulatory Guideline Fact Sheet for more information



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on ESLs, AMCVs and ReVs. The air quality guideline levels for n-butyraldehyde 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.