

# Benzyl alcohol

This document provides a brief description of benzyl alcohol, its uses, and the potential hazards associated with short and long term exposure. Environmental impact information for accidental releases is included. This information is general in nature and is not intended as a replacement for the safety data sheet (SDS), product label and other safe handling literature. For additional information consult the LANXESS safety data sheet.

## Identification

Product Name: Benzyl alcohol pure

Chemical Name: Benzyl alcohol

**Synonym(s):** Alpha-hydroxytoluene

Benzoyl alcohol Phenyl carbinol Phenyl methanol

**CAS Number:** 100-51-6

# **Description**

**Overview:** Benzyl alcohol is a colorless liquid with a mild odor.

**Uses:** Benzyl alcohol produced by LANXESS is primarily used as a curing agent

or solvent for industrial paints and coatings. The organic compound is also used as an intermediate in the production of flavoring, fragrance or

preservative additives for foods, cosmetics and other products.

Properties: Melting Point: Approx. 5°F (-15°C)

Boiling Point: Approx. 401°F (205°C)

Flash Point: Approx. 212.7°F (100.4°C)

Solubility in Water: Soluble

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# **Potential Human Health Effects**

## **Occupational Exposure**

Potential for occupational exposure exists through inhalation, ingestion, skin or eye contact during the manufacture of benzyl alcohol and at transloading, storage and staging areas. A much lower potential for exposure exists in facilities using the chemical as an intermediate or ingredient in the manufacture of other products. The majority of benzyl alcohol sold by LANXESS is used in closed manufacturing processes by trained personnel.

## **Employee Training**

Workers handling benzyl alcohol are trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. A NIOSH approved airpurifying organic vapor respirator is recommended for transloading, unloading and other operations not contained within a closed system. In addition, LANXESS recommends that goggles, permeation resistant clothing, gloves and foot protection be worn when handling benzyl alcohol.

#### **Consumer Exposure**

LANXESS does not sell benzyl alcohol to the general public. Benzyl alcohol is naturally occurring in many plants and is commonly found in fruits and teas. The organic compound is also used as an intermediate in the production of flavoring, fragrance or preservative additives for foods, cosmetics and other products.

#### **Short-Term Health Effects**

Skin contact may be mildly irritating. Benzyl alcohol absorbed through the skin in sufficient quantities may cause nervous system effects with symptoms of dizziness, headache, numbness, lack of coordination and/or confusion. Eye contact is expected to be irritating with symptoms of redness, tearing and stinging. Inhalation of benzyl alcohol may cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Inhaling benzyl alcohol in sufficient quantities may cause nervous system depression with symptoms of nausea, lightheadedness, drowsiness, dizziness and lack of coordination. Benzyl alcohol may be harmful if swallowed. Symptoms of ingestion include abdominal pain, nausea, vomiting and diarrhea. Ingesting benzyl alcohol in sufficient quantities may cause nervous system effects as described for skin absorption.

#### **Long-Term Health Effects**

Long-term or repeated skin contact may result in dryness and cracking of the skin. Sensitive individuals may experience an allergic skin reaction with symptoms of redness and itching. Chronic inhalation may result in lung damage. Repeated ingestion of benzyl alcohol may result in kidney, liver or lung damage and/or blood disorders. Prolonged eye contact may cause conjunctivitis.

# **Physical Hazards**

Benzyl alcohol is stable under normal conditions of use but decomposes with prolonged exposure to air and light. Avoid contact with acids, iron, zinc, aluminum and strong oxidizing agents. Heating to decomposition may release carbon monoxide and other toxic vapors. Exposure to heat, open flames and other potential sources of ignition must be avoided.

# **Potential Environmental Impact**

Benzyl alcohol biodegrades rapidly and is not expected to accumulate in the environment. An accidental release to water may pose a danger to fish (moderate toxicity), invertebrates (low toxicity) and plants (low toxicity) prior to degrading.

# Conclusion

Under normal conditions of anticipated use as described in this Product Safety Assessment, and if the recommended safe use and handling procedures are followed, benzyl alcohol is not expected to pose a significant risk to human health or the environment.

# References

**Benzoates Screening Information Data Set (SIDS)**, Organization for Economic Cooperation and Development

International Chemical Safety Card, International Programme on Chemical Safety (IPCS)

Safety Data Sheet (SDS), BENZYL ALCOHOL, LANXESS Corporation

**MedlinePlus Medical Encyclopedia**, U.S. National Library of Medicine and the National Institutes of Health

**ToxNet Hazardous Substances Data Bank**, U.S. National Library of Medicine, National Institutes of Health and the U.S. Department of Health and Human Services

# **Contact Information**

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# **Notices**

# **Use and Application Information**

The conditions of your use and application of our products, technical assistance and information (whether verbal, written or by way of production evaluation(s)), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis at least must include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by LANXESS. All information is given without warranty or guarantee. It is expressly understood and agreed that customer assumes and hereby expressly releases LANXESS from all liability, in tort, contract or otherwise, incurred in connection with the use of our products and information. Any statement or recommendation not contained herein is unauthorized and shall not bind LANXESS Corporation. Nothing herein shall be construed as a recommendation to use any product in violation of any patent covering any material or its use. No permission or license to use any patent is implied or in fact granted by this publication.