

# Benzoic Acid

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This document provides a brief description of Benzoic Acid, its uses, and the potential hazards associated with short-term 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 material safety data sheet (SDS), product label and other safe handling literature. For additional information consult the LANXESS Corporation safety data sheet.

## Identification

<b>Chemical Name:</b>	Benzoic Acid
<b>Synonym(s):</b>	Benzenecarboxylic acid Carboxybenzene Phenyl carboxylic acid
<b>CAS Number:</b>	65-85-0

## Description

<b>Overview:</b>	Benzoic Acid is a white solid at ambient temperatures. The chemical compound has a slight, characteristic odor.								
<b>Uses:</b>	Benzoic Acid is a naturally occurring compound used as an intermediate (processing aid) or additive (preservative, antimicrobial agent, plasticizer) in the production of many consumer and industrial products including food products, personal care products, cosmetics, perfumes, pharmaceuticals, cleaners and more.								
<b>Properties:</b>	<table><tr><td><b>Solubility in Water:</b></td><td>Soluble</td></tr><tr><td><b>Boiling Point:</b></td><td>249°C (480°F)</td></tr><tr><td><b>Flash Point:</b></td><td>121°C (249.8°F) closed cup</td></tr><tr><td><b>Auto-Ignition:</b></td><td>570°C (1058°F)</td></tr></table>	<b>Solubility in Water:</b>	Soluble	<b>Boiling Point:</b>	249°C (480°F)	<b>Flash Point:</b>	121°C (249.8°F) closed cup	<b>Auto-Ignition:</b>	570°C (1058°F)
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### Potential Human Health Effects

#### Occupational Exposure

Potential for occupational exposure exists during manufacture and in storage, transfer, maintenance and sampling operations at facilities using Benzoic Acid as an intermediate or additive in the manufacture of other products. A much lower potential for exposure exists in facilities using the chemical compound in closed manufacturing processes by trained personnel.

#### Employee Training

Workers should be trained to implement proper handling procedures and to understand the potential health and physical hazards of Benzoic Acid exposure. If user operations generate dust, fumes, gas, vapor or mist, explosion-proof ventilating equipment, process enclosures and other engineering controls should be used to keep worker exposure below any recommended or statutory limits (the OSHA PEL for Particulates Not Otherwise Regulated is 15 mg/m<sup>3</sup> - total dust, 5 mg/m<sup>3</sup> – respirable fraction. ACGIH recommends 3 mg/m<sup>3</sup> - respirable particles and 10 mg/m<sup>3</sup> - inhalable particles for Particles Not Otherwise Specified). A NIOSH approved, air-purifying particulate respirator with N-95 filters should be worn if airborne concentration levels are unknown or exceed recommended limits. In addition, LANXESS recommends safety glasses with side-shields and permeation resistant gloves, clothing and footwear be worn when handling Benzoic Acid.

#### Consumer Exposure

LANXESS Corporation does not sell Benzoic Acid to the general public. Consumers may be exposed to trace amounts of the chemical compound via inhalation of ambient air, ingestion of food and drinking water, dermal contact with consumer products containing Benzoic Acid and/or exposure to certain wood and cooking smokes.

#### Short-Term Health Effects

Benzoic Acid is corrosive to skin, eyes and respiratory tract. Symptoms of eye contact include redness, tearing, swelling and burning. Permanent eye damage is possible. Skin contact may be irritating with symptoms of redness, itching, burning and swelling. Inhalation may cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Ingestion in sufficient concentrations may result in abdominal pain, nausea and vomiting.

#### Long-Term Health Effects

Prolonged or repeated inhalation may cause lung damage.

### Physical Hazards

Benzoic Acid is stable under normal conditions of use. Incompatible materials include strong oxidizing agents and acids. Dust concentrations may form explosive mixtures in air. Avoid exposure to heat, open flames and other potential sources of ignition. Heating to decomposition may produce carbon monoxide, carbon dioxide (CO<sub>2</sub>) and other toxic fumes.

### Potential Environmental Impact

Benzoic Acid is readily biodegradable. A release to environmental water sources is unlikely to pose a risk to fish, aquatic invertebrates and aquatic plants prior to degradation, because environmentally relevant concentrations are far below the effective concentrations indicated in aquatic studies. Bioaccumulation is not expected.

### 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, Benzoic Acid is not expected to pose a significant risk to human health or the environment.

### References

*ECHA InfoCard, Benzoic Acid*, European Chemicals Agency

*International Chemical Safety Card, Benzoic Acid*, World Health Organization (WHO) and the International Labour Organization (ILO)

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

*PubChem Hazardous Substance Data Bank, Benzoic Acid*, National Library of Medicine, National Center for Biotechnology Information

*Safety Data Sheet (SDS), Benzoic Acid Tech*, LANXESS Corporation

### Contact Information

LANXESS Corporation, Product Safety & Regulatory Affairs, 111 RIDC Park West Drive, Pittsburgh, PA 15275-1112, USA, Phone 1-800-526-9377 [1-800-LANXESS]

### Notices

#### Use and Application Information

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), 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 must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.