

Potassium Benzoate

This document provides a brief description of Potassium Benzoate, 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

Chemical Name:	Potassium Benzoate
Synonym(s):	Benzoic acid, potassium salt
CAS Number:	582-25-2

Description

Overview:	Potassium Benzoate is an odorless white solid (crystalline powder) at ambient temperatures.								
Uses:	Potassium Benzoate is used as a processing aid or additive (preservative, pH regulating agent, stabilizer) in the production of various commercial and industrial products, including plastics, pulp and paper products, water treatment products, coatings, inks and toners. Potassium Benzoate is also used as a preservative in many packaged food products, cosmetics, fireworks, personal care products (i.e. shampoos, conditioners, facial cleansers, and moisturizers) and more.								
Properties:	<table><tr><td>Solubility in Water:</td><td>Soluble</td></tr><tr><td>Boiling Point:</td><td>450°C (842°F)</td></tr><tr><td>Melting Point:</td><td>300°C (572°F)</td></tr><tr><td>Auto-Ignition:</td><td>510°C (950°F)</td></tr></table>	Solubility in Water:	Soluble	Boiling Point:	450°C (842°F)	Melting Point:	300°C (572°F)	Auto-Ignition:	510°C (950°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 Potassium Benzoate as an 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 Potassium Benzoate exposure. If 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/m³ - total dust, 5 mg/m³ – respirable fraction. ACGIH recommends 3 mg/m³ - respirable particles and 10 mg/m³ - inhalable particles for Particles Not Otherwise Specified). A NIOSH approved, air-purifying 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 Potassium Benzoate.

Consumer Exposure

LANXESS Corporation does not sell Potassium Benzoate to the general public. The chemical compound is approved for use as a food preservative. Consumers may be exposed to trace amounts of Potassium Benzoate via inhalation of ambient air, ingestion of food products using the substance as a preservative or contact with personal or plant protection products manufactured using the substance as an additive.

Short-Term Health Effects

Exposure to Potassium Benzoate may cause severe eye irritation. Symptoms of eye contact include redness, tearing, stinging and swelling. Serious eye damage is possible. Inhalation of dust may cause mechanical irritation in the respiratory tract.

Long-Term Health Effects

Prolonged or repeated eye contact may cause permanent eye damage.

Physical Hazards

Potassium Benzoate is stable under normal conditions of use. Avoid contact with acids and alkalis. 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 dioxide (CO₂), carbon monoxide, metal oxides and other toxic/irritating gases or fumes.

Potential Environmental Impact

Potassium Benzoate is readily biodegradable. Degrades rapidly with exposure to air. A release to environmental water sources is unlikely to pose a risk to fish, aquatic invertebrates and aquatic plants because the levels in the receiving waters are expected to be much lower than the effective concentrations of the substance based on aquatic toxicity 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, Potassium Benzoate is not expected to pose a significant risk to human health or the environment.

References

ECHA InfoCard, Potassium Benzoate, European Chemicals Agency

International Chemical Safety Card, Potassium Benzoate, 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, Potassium Benzoate, National Library of Medicine, National Center for Biotechnology Information

Safety Data Sheet (SDS), KALAMA® Potassium Benzoate FCC Grade, 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.