

# Polybutylene Terephthalates (PBT)

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This document provides a brief description of Polybutylene Terephthalate (PBT), as represented by Pocan<sup>®</sup> B 1300, 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 Corporation safety data sheet.

## Identification

<b>Chemical Name:</b>	Polybutylene Terephthalate (PBT)
<b>Synonym(s):</b>	Poly(1,4-butylene terephthalate)
<b>CAS Number:</b>	26062-94-2

## Description

<b>Overview:</b>	Polybutylene Terephthalate (PBT) is sold under the trade name Pocan <sup>®</sup> . Polybutylene Terephthalate (PBT) is a colorless, odorless solid at ambient temperatures.						
<b>Uses:</b>	Polybutylene Terephthalate (PBT) is an engineering resin sold by LANXESS primarily for use in the manufacture of electrical/electronics products. The material can also be found in the automotive industry, in medicine and in the sports and leisure sectors.						
<b>Properties:</b>	<table><tr><td><b>Melting Point:</b></td><td>225°C (437°F)</td></tr><tr><td><b>Flash Point:</b></td><td>Closed cup: &gt;350°C (&gt;662°F)</td></tr><tr><td><b>Solubility in Water:</b></td><td>Insoluble</td></tr></table>	<b>Melting Point:</b>	225°C (437°F)	<b>Flash Point:</b>	Closed cup: >350°C (>662°F)	<b>Solubility in Water:</b>	Insoluble
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<b>Flash Point:</b>	Closed cup: >350°C (>662°F)						
<b>Solubility in Water:</b>	Insoluble						

### Potential Human Health Effects

#### Occupational Exposure

Potential for occupational exposure exists during manufacture, at unloading, storage and staging areas and during sampling, maintenance and processing operations at facilities where Polybutylene Terephthalate (PBT) is used in the manufacture of other products. A much lower potential for exposure exists in facilities using the product in closed manufacturing processes by trained personnel.

#### Employee Training

Workers handling Polybutylene Terephthalate (PBT) should be trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. LANXESS recommends long pants, a long-sleeved shirt, gloves and suitable protective footwear be worn when handling Polybutylene Terephthalate (PBT). Workers handling hot material should wear heat-resistant protective gloves that are able to withstand the temperature of the molten product. Safety glasses with side shields should be worn if eye contact is possible. Selection and use of a respirator must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Thermal processing operations should be ventilated to control gases and fumes given off during processing.

#### Consumer Exposure

LANXESS Corporation does not sell Polybutylene Terephthalate (PBT) to the general public. Consumers may be exposed to trace amounts of the chemical through dermal contact with products containing poly(1,4-butylene terephthalate).

#### Short-Term Health Effects

Unprotected skin contact with heated Polybutylene Terephthalate (PBT) will cause thermal burns. Prolonged or repeated exposure may cause redness, itching, swelling, burning and possible permanent skin damage.

#### Long-Term Health Effects

No long-term adverse health effects are expected.

### Physical Hazards

Polybutylene Terephthalate (PBT) is stable under normal conditions of use. Heating to decomposition may release carbon monoxide, carbon dioxide and other potentially toxic fumes and gases. Hazardous decomposition products may also include phenol, aldehydes and hydrocarbons. Avoid heat, open flames and other potential sources of ignition.

### Potential Environmental Impact

No significant effects or critical hazards would be expected from an accidental release of this product to the environment.

### 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, Polybutylene Terephthalate (PBT) is not expected to pose a significant risk to human health or the environment.

### References

*Pocan Product Range with Reference Data*, LANXESS Corporation

*Product Specification, Pocan<sup>®</sup> B 1300*, LANXESS Corporation

*Safety Data Sheet (SDS), Pocan<sup>®</sup> B 1300*, LANXESS Corporation

*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

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.