

PA 6 / IPDI Resins

This document provides a brief description of PA 6/IPDI, as represented by Durethan® C 38 F, 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

Chemical Name:	Polyamine 6/Isophorone Diisocyanate (IPDI)
Synonym(s)	Copolyamide based on caprolactam
CAS Number:	29009-00-5

Description

Overview:	PA 6/IPDI is sold under the trade name Durethan®. PA 6/IPDI is a colorless solid at ambient temperatures.						
Uses:	PA 6/IPDI is an engineering thermoplastic produced by LANXESS for use in the manufacture of multi-layer packaging films and other products.						
Properties:	<table><tr><td>Melting Point:</td><td>212°C (413.6°F)</td></tr><tr><td>Flash Point:</td><td>Closed cup: >400°C (>752°F)</td></tr><tr><td>Solubility in Water:</td><td>Insoluble</td></tr></table>	Melting Point:	212°C (413.6°F)	Flash Point:	Closed cup: >400°C (>752°F)	Solubility in Water:	Insoluble
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Flash Point:	Closed cup: >400°C (>752°F)						
Solubility in Water:	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 PA 6/IPDI 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 PA 6/IPDI 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 PA 6/IPDI. 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 PA 6/IPDI to the general public.

Short-Term Health Effects

Skin contact with PA 6/IPDI may be irritating, with symptoms of redness, itching, swelling and burning. Unprotected skin contact with hot material will cause thermal burns.

Long-Term Health Effects

No long-term adverse health effects are expected.

Physical Hazards

PA 6/IPDI is stable under normal conditions of use. Heating to decomposition may release carbon monoxide, carbon dioxide and nitrogen oxides. Hazardous decomposition products may also include hydrogen cyanide, pyridine, hydrocarbons, amines and nitriles. Melted product is flammable and produces intense heat and dense smoke during burning. Avoid heat, open flames and other potential sources of ignition.

Potential Environmental Impact

No known significant effects or critical hazards.

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, PA 6/IPDI is not expected to pose a significant risk to human health or the environment.

References

Product Data Sheet (SDS), Durethan® C 38 F, LANXESS Corporation

Safety Data Sheet (SDS), Durethan® C 38 F, 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.