

Hexanedioic acid, 1,6-bis(2-ethylhexyl) ester

This document provides a brief description of hexanedioic acid, 1,6-bis(2-ethylhexyl) ester, 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 material safety data sheet (SDS), product label and other safe handling literature. For additional information consult the LANXESS Corporation safety data sheet.

Identification

Product Name:	UNIPLEX 125A
Chemical Name:	Hexanedioic acid, 1,6-bis(2-ethylhexyl) ester
Synonym(s):	Bis(2-ethylhexyl)adipate DEHA Dioctyl adipate
CAS Number:	103-23-1

Description

Overview:	Hexanedioic acid, 1,6-bis(2-ethylhexyl) ester is a clear, oily liquid at ambient temperatures. The chemical has a characteristic odor.						
Uses:	Hexanedioic acid, 1,6-bis(2-ethylhexyl) ester is sold by LANXESS for use as a plasticizer in vinyl films and other polymer products. The chemical is also used as an ingredient in coatings, adhesives and other industrial products.						
Properties:	<table><tr><td>Boiling Point:</td><td>214°C (572°F)</td></tr><tr><td>Flash Point:</td><td>206°C (402.8°F) open cup</td></tr><tr><td>Solubility in Water:</td><td>Low</td></tr></table>	Boiling Point:	214°C (572°F)	Flash Point:	206°C (402.8°F) open cup	Solubility in Water:	Low
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Flash Point:	206°C (402.8°F) open cup						
Solubility in Water:	Low						

Potential Human Health Effects

Occupational Exposure

Potential for occupational exposure exists during manufacture and drumming, and in transfer operations at facilities using the chemical in the manufacture of other products. A much lower potential for exposure exists in facilities using hexanedioic acid, 1,6-bis(2-ethylhexyl) ester in closed manufacturing processes by trained personnel.

Employee Training

Workers handling hexanedioic acid, 1,6-bis(2-ethylhexyl) ester should be trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. A NIOSH approved air-purifying organic vapor respirator should be used in cases where ventilation is insufficient or airborne concentrations are unknown. In addition, LANXESS recommends splash goggles and permeation resistant gloves, clothing and protective footwear for workers handling hexanedioic acid, 1,6-bis(2-ethylhexyl) ester.

Consumer Exposure

LANXESS Corporation does not sell hexanedioic acid, 1,6-bis(2-ethylhexyl) ester to the general public. Consumers may be exposed to trace amounts of the chemical through migration from food wraps and other consumer products.

Short-Term Health Effects

No known significant effects or critical hazards. Eye contact may be irritating, with symptoms of redness and pain. Ingestion of sufficient quantities may cause diarrhea.

Long-Term Health Effects

Repeated exposure to hexanedioic acid, 1,6-bis(2-ethylhexyl) ester at high dose levels may cause an adaptive response in the liver, but no irreversible changes.

Physical Hazards

Hexanedioic acid, 1,6-bis(2-ethylhexyl) ester is stable under normal conditions of use. Avoid contact with strong oxidizing agents and acids. Heating to decomposition may release carbon monoxide and carbon dioxide. Avoid heat, open flames and other potential sources of ignition.

Potential Environmental Impact

Hexanedioic acid, 1,6-bis(2-ethylhexyl) ester is readily biodegradable. No harmful effects to aquatic or terrestrial organisms would be expected from an accidental release to the environment.

Hexanedioic acid, 1,6-bis(2-ethylhexyl) ester may accumulate in suspended soils and sediments, but no significant accumulation in the tissues of aquatic organisms is 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, hexanedioic acid, 1,6-bis(2-ethylhexyl) ester is not expected to pose a significant risk to human health or the environment.

References

Bis(2-ethylhexyl)adipate (DEHA) Screening Information Data Set (SIDS), Organization for Economic Cooperation and Development

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

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

Safety Data Sheet (SDS), UNIPLEX 125A, RheinChemie Additives

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.