

1,6-Hexanediol

This document provides a brief description of 1,6-Hexanediol, 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

Product Name:	Hexanediol-1.6 pure liquid
Chemical Name:	1,6-Hexanediol
Synonym(s):	1,6-Dihydroxyhexane Hexamethylene glycol Hexamethylenediol Hexan-1,6-diol
CAS Number:	629-11-8

Description

Overview:	1,6-Hexanediol is a colorless to light yellow solid at ambient temperatures. The chemical has a faint odor.								
Uses:	1,6-Hexanediol is sold by LANXESS for use as an intermediate or reactant in the manufacture of polyesters, polyurethanes, varnishes, adhesives and other products.								
Properties:	<table><tr><td>Melting Point:</td><td>39 to 42°C (102.2 to 107.6°F)</td></tr><tr><td>Boiling Point:</td><td>250°C (1013 hPa)</td></tr><tr><td>Flash Point:</td><td>136°C (276.8°F) closed cup</td></tr><tr><td>Solubility in Water:</td><td>Miscible</td></tr></table>	Melting Point:	39 to 42°C (102.2 to 107.6°F)	Boiling Point:	250°C (1013 hPa)	Flash Point:	136°C (276.8°F) closed cup	Solubility in Water:	Miscible
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Potential Human Health Effects

Occupational Exposure

Potential for occupational exposure exists during manufacture, at bulk unloading, storage and staging areas, and during sampling, maintenance and transfer operations in facilities where 1,6-hexanediol is used in the manufacture of other products. A much lower potential for exposure exists in facilities using 1,6-hexanediol in closed manufacturing processes by trained personnel.

Employee Training

Workers handling 1,6-hexanediol should be trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. Use and selection of respirators should be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. LANXESS recommends protective goggles with side shields or tightly fitting protective goggles and permeation resistant gloves, clothing and foot protection be worn when handling 1,6-hexanediol. Suitable heat-resistant protective gloves should be worn when handling hot material.

Consumer Exposure

LANXESS Corporation does not sell 1,6-hexanediol to the general public.

Short-Term Health Effects

Eye contact may cause severe irritation with symptoms of watering and redness. Contact with heated material may cause thermal burns. Ingestion of 1,6-hexanediol may cause digestive tract irritation with symptoms of abdominal pain, nausea, vomiting and diarrhea.

Long-Term Health Effects

No long-term adverse health effects are expected.

Physical Hazards

1,6-Hexanediol is stable under normal conditions of use. Heating to decomposition may release carbon monoxide, carbon dioxide and other potentially toxic fumes or gases. Avoid heat, open flames and other potential sources of ignition.

Potential Environmental Impact

1,6-Hexanediol is readily biodegradable. An accidental release of 1,6-hexanediol to water may pose a danger to fish (low toxicity), invertebrates (low toxicity) and aquatic plants (low toxicity) prior to degradation. 1,6-Hexanediol is not expected to adsorb to suspended soils and sediments or accumulate in the tissues of aquatic organisms.

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, 1,6-hexanediol is not expected to pose a significant risk to human health or the environment.

References

Safety Data Sheet (SDS), Hexanediol-1.6 pure liquid, LANXESS Corporation

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

SIDS Initial Assessment Report – HEXAMETHYLENE GLYCOL, Organization for Economic Cooperation and Development (OECD)

ToxNet Hazardous Substance Data Bank, U.S. National Library of Medicine, National Institutes of Health and the U.S. Department of Health and Human Services

Contact Information

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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.