

2,2'-Dibenzamido Diphenyl Disulfide

This document provides a brief description of 2,2'-Dibenzamido Diphenyl Disulfide, 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 safety data sheet.

Identification

Product Name:	2,2'-Dibenzamido Diphenyl Disulfide
Chemical Name:	N,N'-(dithiodi-2,1-phenylene)bis-benzamide
Synonym(s):	2,2'''-Dithiobisbenzanilide bis(2-benzamidophenyl) disulfide Benzamide,N,N'-(dithiodi-2,1-phenylene)bis-DBD
CAS Number:	135-57-9

Description

Overview:	2,2'-Dibenzamido Diphenyl Disulfide is a pale yellow to gray powder at ambient temperatures. The chemical has a mild odor.
Uses:	2,2'-Dibenzamido Diphenyl Disulfide is sold by LANXESS for use as an additive in the production of tires, belts, hoses and other rubber products.
Properties:	Melting Point: 284 - 287.6°F (140 - 142°C) Auto Ignition: 1049°F (565°C) Solubility in Water: Insoluble

Potential Human Health Effects

Occupational Exposure

Potential for occupational exposure exists during manufacture, at transloading facilities, during transfers to storage or staging areas and during weighing and mixing operations. A much lower potential for exposure to 2,2'-Dibenzamido Diphenyl Disulfide exists in facilities using the chemical in closed manufacturing processes by trained personnel.

Employee Training

Workers handling 2,2'-Dibenzamido Diphenyl Disulfide are trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. NOISH approved respirators are recommended for product handlers. In addition, LANXESS recommends that workers wear goggles, permeation resistant clothing, gloves and foot protection when handling 2,2'-Dibenzamido Diphenyl Disulfide. Organic vapor respirators and engineering or process controls may be necessary in operations where the chemical is heated to thermal decomposition.

Consumer Exposure

LANXESS does not sell 2,2'-Dibenzamido Diphenyl Disulfide to the general public. Rubber goods manufactured using the chemical as an additive may retain trace amounts of unreacted 2,2'-Dibenzamido Diphenyl Disulfide. Persons susceptible to allergic skin reactions may experience contact dermatitis as a result of direct skin contact with such products.

Short-Term Health Effects

Short-term skin contact with 2,2'-Dibenzamido Diphenyl Disulfide is not expected to be irritating. Susceptible individuals may experience an allergic skin reaction with symptoms of redness, itching, swelling or rash. 2,2'-Dibenzamido Diphenyl Disulfide dust may cause eye irritation. Inhalation of 2,2'-Dibenzamido Diphenyl Disulfide dust may cause irritation of the upper respiratory tract with symptoms of coughing and sore throat. 2,2'-Dibenzamido Diphenyl Disulfide is not expected to be harmful if swallowed.

Long-Term Health Effects

Prolonged skin contact may cause redness, itching, swelling or rash. Skin sensitization is possible. Long-term, repeated inhalation of 2,2'-Dibenzamido Diphenyl Disulfide dust may have an adverse effect on the lungs.

Physical Hazards

2,2'-Dibenzamido Diphenyl Disulfide is a stable, combustible solid at room temperature. Avoid contact with acids, alkalis and strong oxidizing agents. High concentrations of 2,2'-Dibenzamido Diphenyl Disulfide dust may form explosive mixtures with air. Heating to decomposition may release carbon oxides, nitrogen oxides, sulfur oxides and other toxic fumes. Exposure to heat, open flames and other potential sources of ignition should be avoided.

Potential Environmental Impact

2,2'-Dibenzamido Diphenyl Disulfide is not readily biodegradable in the environment. An accidental release to water may pose a danger to fish (low toxicity) and other aquatic organisms (moderate toxicity) prior to degrading.

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, 2,2'-Dibenzamido Diphenyl Disulfide is not expected to pose a significant risk to human health or the environment.

References

2',2'''-Dithiobisbenzanilide (135-57-9), National Cancer Institute, U.S. National Institutes of Health

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

Safety Data Sheet (SDS), Renacit 10, LANXESS Corporation

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

Contact Information

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Notices

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