

2,2'-Methylenebis-(1,1-dimethylethyl)-4-methylphenol

This document provides a brief description of 2,2'-methylenebis-(1,1-dimethylethyl)-4-methylphenol, 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:	Vulkanox BKF
Chemical Name:	2,2'-Methylene-bis-(4-methyl-6-tert-butylphenol)
Synonym(s):	2,2'-Methylene-bis-(6-tert-butyl-p-cresol) 6,6'-Di-tert-butyl-2,2'-methylene-bis-p-cresol BKF BPH Butylphenol derivative
CAS Number:	119-47-1

Description

Overview:	2,2'-Methylenebis-(1,1-dimethylethyl)-4-methylphenol is a white to off-white solid at ambient temperatures. The chemical has a slight odor and is sold in powder form.								
Uses:	2,2'-Methylenebis-(1,1-dimethylethyl)-4-methylphenol is manufactured by LANXESS primarily for use as an additive (antioxidant or stabilizer) in the production of rubber and plastic products. The chemical is also used as an additive in adhesives.								
Properties:	<table><tr><td>Melting Point:</td><td>257-266°F (125-130°C)</td></tr><tr><td>Boiling Point:</td><td>Approx. 365°F (185°C)</td></tr><tr><td>Flash Point:</td><td>365°F (185°C)</td></tr><tr><td>Solubility in Water:</td><td>Slight</td></tr></table>	Melting Point:	257-266°F (125-130°C)	Boiling Point:	Approx. 365°F (185°C)	Flash Point:	365°F (185°C)	Solubility in Water:	Slight
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Solubility in Water:	Slight								

Potential Human Health Effects

Occupational Exposure

Potential for exposure to 2,2'-methylenebis-(1,1-dimethylethyl)-4-methylphenol exists during manufacture, at unloading, storage and staging areas, in mixing or sampling operations and during the charging of reactor vessels. A much lower potential for exposure exists in facilities using the chemical in closed manufacturing processes by trained personnel.

Employee Training

Workers handling 2,2'-methylenebis-(1,1-dimethylethyl)-4-methylphenol are trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. Dust respirators are recommended for product handlers likely to come in direct contact with the substance. In addition, LANXESS recommends that workers wear safety glasses, long-sleeved shirts, long pants and gloves when handling 2,2'-methylenebis-(1,1-dimethylethyl)-4-methylphenol to minimize skin contact.

Consumer Exposure

LANXESS does not sell this product to the general public. Exposure to 2,2'-methylenebis-(1,1-dimethylethyl)-4-methylphenol from handling of products manufactured using the chemical as an additive is expected to be negligible. Trace amounts of the chemical have been detected in drinking water supplies.

Short-Term Health Effects

2,2'-Methylenebis-(1,1-dimethylethyl)-4-methylphenol is not expected to be irritating to skin. Eye contact with dust may cause mild irritation. Inhalation of 2,2'-methylenebis-(1,1-dimethylethyl)-4-methylphenol dust may cause mechanical irritation to the upper respiratory tract. 2,2'-Methylenebis-(1,1-dimethylethyl)-4-methylphenol is not expected to be harmful if swallowed.

Long-Term Health Effects

Long-term or repeated contact with 2,2'-methylenebis-(1,1-dimethylethyl)-4-methylphenol may impair fertility.

Physical Hazards

2,2'-Methylenebis-(1,1-dimethylethyl)-4-methylphenol is stable under normal conditions of use. High concentrations of dust may form explosive mixtures with air. Heating to decomposition may release carbon oxides and other irritating or toxic gases/fumes. Exposure to heat, open flames and other potential sources of ignition should be avoided. Keep away from oxidizing materials.

Potential Environmental Impact

2,2'-Methylenebis-(1,1-dimethylethyl)-4-methylphenol is not biodegradable. An accidental release to water may adsorb to suspended solids and sediments. Testing shows no harmful effects to fish, invertebrates or aquatic plants at saturation concentrations.

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'-methylenebis-(1,1-dimethylethyl)-4-methylphenol is not expected to pose a significant risk to human health or the environment.

References

6,6'-Di-tert-butyl-2,2'-methylenedi-p-cresol Screening Information Data Set (SIDS) Initial Assessment Profile, Organization for Economic Cooperation and Development

Safety Data Sheet (SDS), VULKANOX BKF, 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

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

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

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