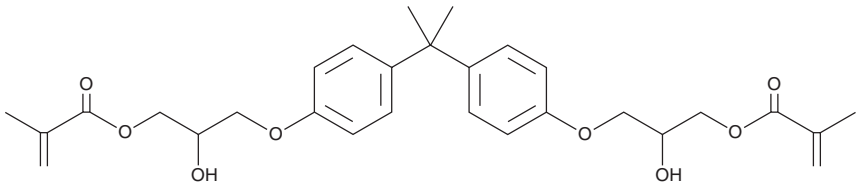
PRODUCT INFORMATION

Bisphenol A glycerolate dimethacrylate

Item No. 45663

CAS Registry No.: 1565-94-2
Formal Name: 2-methyl-2-propenoic acid, 1,1′-[(1-methylethylidene)*bis*[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]] ester
Synonyms: BGDMA, *bis*-GMA
MF: $C_{29}H_{36}O_8$
FW: 512.6
Purity: ≥80%
Supplied as: A neat oil
Storage: -20°C
Stability: ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Bisphenol A glycerolate dimethacrylate (*bis*-GMA) is supplied as a neat oil. A stock solution may be made by dissolving the *bis*-GMA in the solvent of choice, which should be purged with an inert gas. *bis*-GMA is slightly soluble (0.1-1 mg/ml) in ethanol and DMSO.

Description

bis-GMA is a high-viscosity base monomer and derivative of bisphenol A (BPA; Item No. 36594).[1] It has been used to form polymeric resin matrices. *bis*-GMA has been found in the ethanolic leachate of dental composites subjected to repeated incubation, sonication, and drying cycles.[2] It reduces testis weight, sperm counts, and fertility in male mice and increases ovary weight in female mice.[3] It also increases the number of fetal resorptions in female mice administered *bis*-GMA and in female mice mated with males administered *bis*-GMA.[3,4] Formulations containing *bis*-GMA have been used in the resin matrix of dental composite fillings and sealants.

References

1. Liang, X., Yu, B., Ye, L., *et al*. Recent advances in quaternary ammonium monomers for dental applications. *Materials (Basel)* **17(2)**, 345 (2024).
2. Al-Hiyasat, A.S., Darmani, H., and Elbetieha, A.M. Leached components from dental composites and their effects on fertility of female mice. *Eur. J. Oral Sci*. **112(3)**, 267-272 (2004).
3. Al-Hiyasat, A.S. and Darmani, H. *In vivo* effects of BISGMA-a component of dental composite-on male mouse reproduction and fertility. *J. Biomed. Mater. Res. A*. **78(1)**, 66-72 (2006).
4. Darmani, H. and Al-Hiyasat, A.S. The effects of BIS-GMA and TEG-DMA on female mouse fertility. *Dent. Mater*. **22(4)**, 353-358 (2006).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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