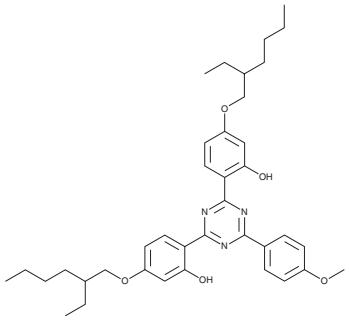
PRODUCT INFORMATION

Bemotrizinol

Item No. 46165

CAS Registry No.:	187393-00-6
Formal Name:	2,2′-[6-(4-methoxyphenyl)-1,3,5-triazine-2,4-diyl]*bis*[5-[(2 ethylhexyl)oxy]-phenol
Synonym:	BEMT
MF:	$C_{38}H_{49}N_3O_5$
FW:	627.8
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Bemotrizinol is supplied as a solid. A stock solution may be made by dissolving the bemotrizinol in the solvent of choice, which should be purged with an inert gas. Bemotrizinol is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

Bemotrizinol is an oil-soluble, broad-spectrum UVA and UVB absorber.[1] An oil-in-water formulation of bemotrizinol only superficially penetrates the stratum corneum of excised porcine skin, indicating a low potential for transdermal permeation.[2] Topical administration of bemotrizinol (50 and 200 mg/g) reduces the development of skin tumors induced by UV radiation (UVR) in a model of simulated UVR exposure using hairless mice.[3] It also has antioxidant activity as an acceptor of atomic oxygen ($O(^3P)$).[4] Bemotrizinol does not bind to estrogen or androgen receptors in cell-free assays and is inactive in an immature rat uterotrophic assay.[5] Formulations containing bemotrizinol have been used as UV absorbers in sunscreens.

References

1. Herzog, B., Hüglin, D., Borsos, E., *et al.* New UV absorbers for cosmetic sunscreens – A breakthrough for the photoprotection of human skin. *CHIMIA* **58,** 554 (2004).
2. Haque, T., Crowther, J.M., Lane, M.E., *et al.* Chemical ultraviolet absorbers topically applied in a skin barrier mimetic formulation remain in the outer stratum corneum of porcine skin. *Int. J. Pharm.* **510(1),** 250-254 (2016).
3. Twelve-month topical study to determine the influence of Tinosorb S (fat 70'884) on photocarcinogenesis in hairless mice. *Charles River Laboratories Argus Division* (2005).
4. Durán-Giner, N., Encinas, S., and Miranda, M.A. Solar filters as feasible acceptors of atomic oxygen. *Photochem. Photobiol. Sci.* **12(5),** 725-728 (2013).
5. Ashby, J., Tinwell, H., Plautz, J., *et al.* Lack of binding to isolated estrogen or androgen receptors, and inactivity in the immature rat uterotrophic assay, of the ultraviolet sunscreen filters Tinosorb M-active and Tinosorb S. *Regul. Toxicol. Pharmacol.* **34(3),** 287-291 (2001).

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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