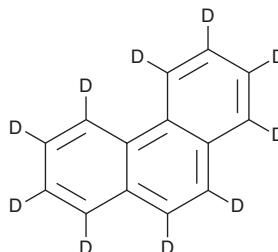


PRODUCT INFORMATION



Phenanthrene-d₁₀ Item No. 43568

CAS Registry No.: 1517-22-2
Formal Name: phenanthrene-1,2,3,4,5,6,7,8,9,10-d₁₀
Synonyms: [3]Helicene-d₁₀, Ravatite-d₁₀
MF: C₁₄D₁₀
FW: 188.3
Chemical Purity: ≥98% (Phenanthrene)
Deuterium
Incorporation: ≥99% deuterated forms (d₁-d₁₀); ≤1% d₀
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

Phenanthrene-d₁₀ is intended for use as an internal standard for the quantification of phenanthrene (Item No. 34284) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Phenanthrene-d₁₀ is supplied as a solid. A stock solution may be made by dissolving the phenanthrene-d₁₀ in the solvent of choice, which should be purged with an inert gas. Phenanthrene-d₁₀ is soluble (≥10 mg/ml) in ethanol and DMSO.

Description

Phenanthrene is a polycyclic aromatic hydrocarbon (PAH).¹ It is found in fossil fuels and produced during the combustion of organic material. Phenanthrene accumulates in the environment, is toxic to aquatic species, and is considered a pollutant. It has been used as an intermediate in the synthesis of certain pesticides, plastics, and steroids.

Reference

1. Waigi, M.G., Kang, F., Goikavi, C., *et al.* Phenanthrene biodegradation by sphingomonads and its application in the contaminated soils and sediments: A review. *Int. Biodeter. Biodegr.* **104**, 333-349 (2015).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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