

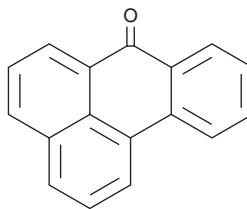
PRODUCT INFORMATION



Benzanthrone

Item No. 44825

CAS Registry No.: 82-05-3
Formal Name: 7H-benz[de]anthracen-7-one
Synonyms: NSC 5189, NSC 631641
MF: $C_{17}H_{10}O$
FW: 230.3
Purity: $\geq 98\%$
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

Benzanthrone is supplied as a solid. A stock solution may be made by dissolving the benzanthrone in the solvent of choice, which should be purged with an inert gas. Benzanthrone is sparingly soluble (1-10 mg/ml) in acetonitrile.

Description

Benzanthrone is a polycyclic aromatic ketone (PAK) and photosensitizer.^{1,2} It produces singlet oxygen and superoxide in the presence of solar irradiation when used at a concentration of $5\text{ }\mu\text{M}$.² Benzanthrone ($20\text{ }\mu\text{M}$) also induces hemolysis of isolated rat erythrocytes and increases malondialdehyde (MDA) levels in isolated rat erythrocyte ghosts in the presence of solar irradiation. It induces skin erythema, edema, and hyperpigmentation in guinea pigs exposed to sunlight or UVA radiation. Benzanthrone (15 mg/kg) increases IL-1, IL-4, IL-10, IL-17, TNF- α , and IFN- γ serum levels in mice.³ It initiates and promotes tumor formation in a two-stage mouse model of skin carcinogenesis.⁴ Benzanthrone has been used as an intermediate in the manufacturing of vat and disperse dyes.³ It has been found in urban ambient air.¹

References

1. Ramdahl, T. Polycyclic aromatic ketones in environmental samples. *Environ. Sci. Technol.* **17**(11), 666-670 (1983).
2. Srivastava, L.P., Misra, R.B., and Joshi, P.C. Photosensitizing potential of benzanthrone. *Food Chem. Toxicol.* **28**(9), 653-658 (1990).
3. Tewari, P., Roy, R., Mishra, S., et al. Benzanthrone induced immunotoxicity via oxidative stress and inflammatory mediators in Balb/c mice. *Immunobiology* **220**(3), 369-381 (2015).
4. Dwivedi, N., Kumar, S., Ansari, K.M., et al. Skin tumorigenic potential of benzanthrone: Prevention by ascorbic acid. *Food Chem. Toxicol.* **59**, 687-695 (2013).

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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