Rotenone
Item No. 13995

CAS Registry No.: 83-79-4
Formal Name: (2R,6aS,12aS)-1,2,12,12a-tetrahydro-8,9-dimethoxy-2-(1-methylethenyl)-[1]benzopyran-3,4-b-furo[2,3-h][1]benzopyran-6(6aH)-one
Synonyms: Nicouline, NSC 8505, NSC 26258, Tubatoxin
MF: C_{23}H_{22}O_6
FW: 394.4
Purity: >95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: \( \lambda_{\text{max}}: 236, 294 \text{ nm} \)

Laboratory Procedures
For long term storage, we suggest that rotenone be stored as supplied at -20°C. It should be stable for at least two years.

Rotenone is supplied as a crystalline solid. A stock solution may be made by dissolving the rotenone in the solvent of choice. Rotenone is soluble in organic solvents such as ethanol, DMSO, and chloroform, which should be purged with an inert gas. The solubility of rotenone in ethanol is approximately 5 mg/ml and approximately 50 mg/ml in DMSO and chloroform.

Rotenone is a potent inhibitor of complex I of the mitochondrial electron transport chain, inhibiting NADH dehydrogenase activity with an IC_{50} value of 5.1 nM.\(^1\) In animals, it drives neurodegeneration, resulting in features similar to some behavioral and neuropathological aspects of Parkinson's disease.\(^2\)-\(^4\) This naturally-occurring isoflavonoid is commonly used as an insecticide, piscicide, and pesticide.\(^5\)

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/13995

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent to your institution.

WARRANTY AND LIMITATION OF REMEDY
Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman Chemical Company shall have no obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed of their possible existence.

This limitation of liability does not apply in the case of personal injury, illness, or death.

Buyer’s exclusive remedy and Cayman’s sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman’s option, replacement at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.