DATA SHEET

L-SEPIAPTERIN
Product No: 11.225

Synonyms: S(-)-2-Amino-7,8-dihydro-6-(2-hydroxy-1-oxopropyl)-4(1H)-pteridinone
CAS No. [17094-01-8]

![Chemical Structure](image)

C₉H₁₁N₅O₃  MW 237.2

Description
Yellow/orange powder

Biochemical functions
Sepiapterin is intracellularly converted to tetrahydrobiopterin.

Solubility
Sepiapterin is slightly soluble in water. Its solubility is 0.17 g per 100 g of water (22°C). It should only be dissolved in neutral or slightly acidic solutions. It is also soluble in DMSO (2.7 g/100 ml). Ultrasonication may be used to improve dissolution.

Analytical methods
HPLC conditions:
- column: Waters Spherisorb S5-ODS1
- eluant: 10 mM Na₂HPO₄ pH 6 - Methanol, (4:1)
- flow rate: 1 ml/min
- wavelength: 254 nm

TLC conditions:
- stationary phase: cellulose
- eluant: water

UV:
We do not perform UV analysis but the following data has been published:
UV lambda max (log epsilon, 0.1 N HCl): 409 (3.79), 271 (3.87).

Specifications
Purity: HPLC > 98.0%
TLC One yellow spot at 366 nm

Stability
Sepiapterin is slightly hygroscopic and is very sensitive to light. It reacts with oxygen, especially in solution. Sepiapterin is less sensitive to oxygen than tetrahydrobiopterin. Dry at -20°C, it can be stored for several years.

Storage
The powder should be stored at -20°C or colder. Solutions of sepiapterin should be made with oxygen free water and frozen as soon as possible. Sepiapterin can be transported without the use of dry ice. In tightly closed dark glass vials protected from light, it is stable at ambient temperatures for several weeks.

Uses
Sepiapterin is often used in biological experiments. Exogenously administered sepiapterin is efficiently incorporated into cells where it is reduced to tetrahydrobiopterin. Sepiapterin is an important standard for analytical work. It is sold for laboratory use only.

Safety information
Sepiapterin is known to be safe and there are no special precautions required in handling this product.

References

Further data sheets can be found on our website www.schircks.ch

The information in this publication is based on our current knowledge and experience. It does not relieve users or processors from carrying out their own precautions and tests.