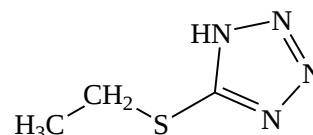


Product Specification

Catalog Number: NC-0107
 Product Name: 5-Ethylmercaptotetrazole
 CAS Number / Name: 89797-68-2
 5-Ethyl-1H-thiotetrazole
 Molecular Formula: C₃H₆N₄S
 Molecular Weight: 130.2 g/mol
 Appearance: White crystalline solid

Hyacinth ETT™

Activator for Chemical RNA and DNA Synthesis



Quality Assurance Data	Specification
Appearance in acetonitrile	Clear, no precipitation
Colour Index (APHA) of 0.3 M solution in acetonitrile	≤ 10
Melting Point	84 - 89°C
Purity by HPLC at 220 nm	≥ 99.0%
Water Content (KF Coulometric)	< 300 ppm

Preparation (IMPORTANT: USE ONLY ANHYDROUS ACETONITRILE WITH A WATER CONTENT OF ≤20 PPM!!)

Choose a Hyacinth ETT™ activator molarity of either 0.25 M or 0.30 M. Use the chart below to determine the volume of acetonitrile required for the amount of Hyacinth ETT™ you wish to dissolve and then completely dissolve Hyacinth ETT™ with this volume. Heating in a warm water bath may speed up dissolution. Use a syringe and two needles (insert one needle as a vent) for water-free addition of acetonitrile to the 30 mL- and 60 mL-bottles.

Amount of Activator	Vol. of Acetonitrile for 0.25 M Solution	Vol. of Acetonitrile for 0.30 M Solution
1.50 g (11.5 mmol)	46 mL	38,3 mL
3.00 g (23 mmol)	92 mL	76,7 mL
25 g (192 mmol)	768 mL	640 mL
50 g (384 mmol)	1536 mL	1280 mL
1000 g (7,68 mol)	30.72 L	25.6 L

Application Note

Hyacinth ETT™ (5-Ethylmercapto-1H-tetrazole) is an activator for chemical synthesis of RNA and DNA and can be used as a simple substitute for 1H-Tetrazole, DCI and BTT in all protocols.

Precautions for Safe Handling

Hyacinth ETT™ is not a significant hazard in the quantities provided. However, it may enter the body through inhalation, ingestion, eye or skin contact. Avoid prolonged or repeated exposure. If eye or skin contact occurs, wash affected areas with water for 15 minutes and seek medical advice. Seek medical advice if swallowed.



Molecular Sieves

While storing Hyacinth ETT™ over molecular sieves can ensure a dry solution, it has been observed that some brands of molecular sieves may impart a blue or yellow color to the solution after standing for a few weeks. If you observe unwanted discoloration after using molecular sieves we suggest you try the following:

- adding molecular sieves a maximum of 2 days before use
- use solutions over molecular sieves within three to four weeks
- switch to a different brand of molecular sieve

Alternatively, anhydrous acetonitrile solutions of Hyacinth ETT™ are available and ready-to-use directly from emp Biotech.

Shipping: Ambient

Storage: Ambient

Usage hint: The use of this product is strictly limited to trained personnel for professional manufacturing, laboratory, or research purposes. Final Fitness-For-Use must be determined by and is the sole responsibility of the end-user.