Stercobilin Hydrochloride

Catalog number: F-H150

Molecular Formula: \( \text{C}_{33}\text{H}_{47}\text{N}_{4}\text{O}_{6}\text{Cl} \)

MW: 631.22

CAS: 34217-90-8

Solubility: DMF, pyridine and basic solutions > pH 9.0

Storage and Handling: Stercobilin Hydrochloride is stable for at least one year when stored as a solid, protected from moisture, at ~20°C. Protect from light.

Background: Stercobilin Hydrochloride is produced via the oxidation of stercobilinogen, a degradation product of bilirubin, and excreted in the feces. Bilirubin is a water insoluble tetrapyrrole produced from the reduction of biliverdin in a reaction catalyzed by the enzyme bilirverdin reductase. Water insoluble bilirubin (also called indirect bilirubin) in vivo undergoes glucuronidation in the liver (addition of one or two glucuronic acids through a glycosidic bond) to form the water soluble bilirubin mono or diglucuronide (also called bilirubin conjugate or direct bilirubin). Bilirubin conjugate is excreted from the liver in bile or is converted to mesobilinogen via gut bacteria and then to urobilinogen and excreted in the urine as urobilin or stercobilinogen and excreted in the feces as stercobilin. Stercobilin Hydrochloride is soluble in basic aqueous solutions (pH > 9 for initial dissolution) and soluble down to pH 7 once in solution as well as methanol and ethanol if made slightly basic.