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## Glycolic Acid,

$C_2H_4O_3$  76.05 CAS RN<sup>®</sup>: 79-14-1.—White crystalline powder or chunks.

### Assay

**Silylating reagent:** Pyridine, hexamethyldisilazane, chlorotrimethylsilane (9:3:1)

**Sample preparation:** Weigh approximately 25 mg (about 3 drops) of the sample into a test tube. Add 2 mL of the *Silylating reagent* and cap the test tube. Mix well and allow to incubate at room temperature for a minimum of 2 h. A white precipitate of ammonium chloride will form. Centrifuge and use the clear supernatant for injection.

**Procedure:** Inject an appropriate volume of the *Sample preparation* into a gas chromatograph (see [Chromatography \(621\)](#)) equipped with a flame-ionization detector, helium being used as the carrier gas. The following conditions have been found suitable: a 0.25-mm × 30-m capillary column coated with a 1- $\mu$ m layer of phase G2. The injection port temperature is maintained at 250°; the detector temperature is maintained at 300°; the column temperature is maintained at 100° and programmed to rise 10° per min to 250°. The area of the peak corresponding to  $C_2H_4O_3$  is NLT 98.5% of the total peak area.

**Auxiliary Information** - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
GLYCOLIC ACID	<a href="#">Margareth R.C. Marques</a> Principal Scientific Liaison	HDQ Headquarters

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