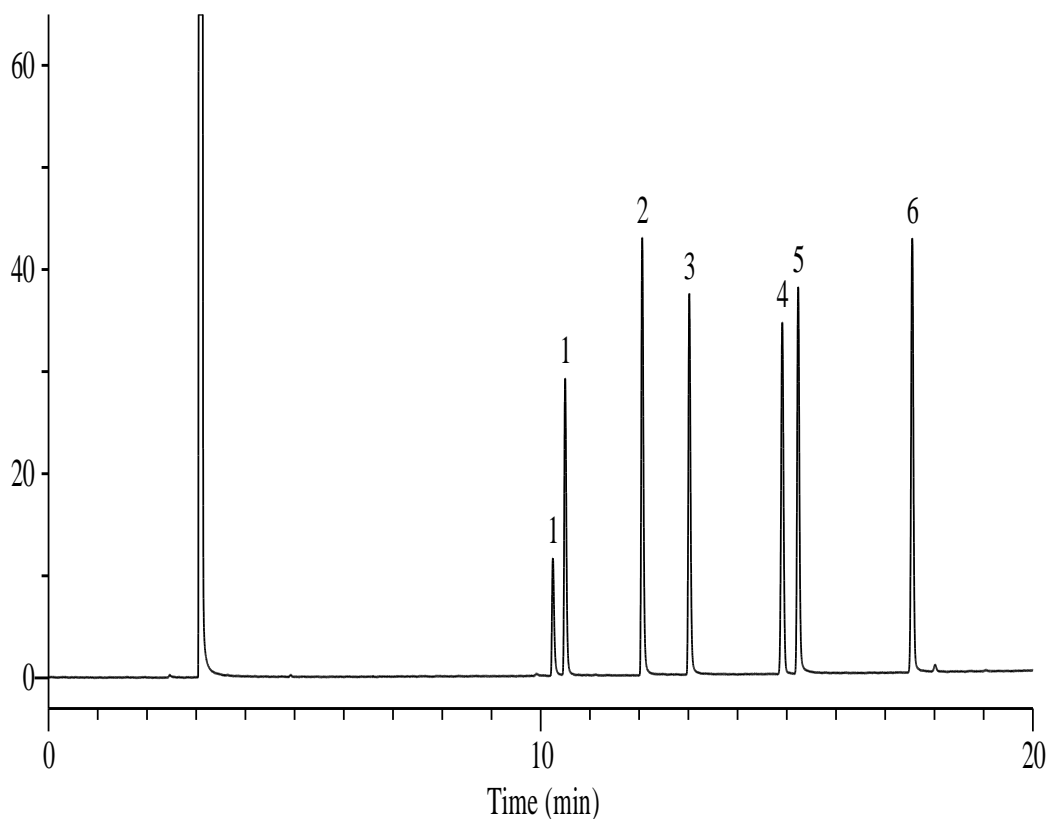


## $\gamma$ -Butyrolacton & Diols



### Conditions

**System** : GC/FID  
**Column** : InertCap 1701  
 0.32 mm I.D. x 30 m df = 1.0  $\mu$ m  
**Col. Cat. No.** : 1010-61245  
**Col. Temp.** : 50 °C - 7 °C/min - 190 °C  
**Carrier Gas** : He 50 kPa  
**Injection** : Split flow 180 mL/min  
 240 °C  
**Detection** : FID Range 10<sup>0</sup>  
 240 °C  
**Sample Size** : 1 mg/mL in Acetone  
 1  $\mu$ L

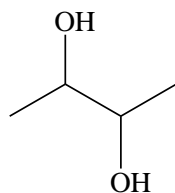
### Analyte

1. 2,3-Butanediol\*  
 2. 1,2-Butanediol  
 3. 1,3-Butanediol  
 4.  $\gamma$ -Butyrolactone  
 5. 1,4-Butanediol  
 6. 1,5-Pentanediol

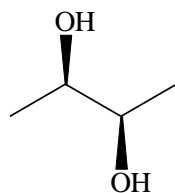
\*Isomers mixture

## $\gamma$ -Butyrolacton & Diols

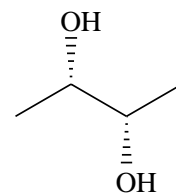
### Chemical Structure



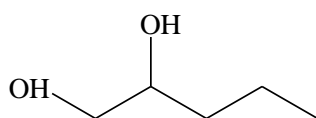
1. 2,3-Butanediol



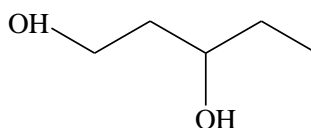
(2R,3R)-(-)- 2,3-Butanediol



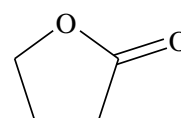
(2S,3S)-(+)- 2,3-Butanediol



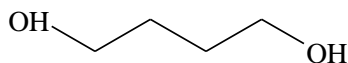
2. 1,2-Butanediol



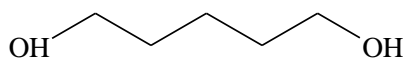
3. 1,3-Butanediol



4.  $\gamma$ -Butyrolactone



5. 1,4-Butanediol



6. 1,5-Pentanediol

Structures are created using Chemistry 4-D Draw which is provided by ChemInnovayion Software, Inc.