

**FINGERPRINT**

Transmittance %

no C=O or C=C

H-BONDED OH

broad 3330

sp<sup>3</sup> CHs

THIS IS A C-O!

2896, 2874, 2978, 2939

cydubutanol

1700 1500 1000

wavenumber cm<sup>-1</sup>

STRETCH

**FINGERPRINT**

Transmittance %

Overtones of 1716 (no O-H)

sp<sup>3</sup> CHs

2960, 2940, 2901

1716 strong C=O

1716 C=O

1065, 1035 C-C bend

2-butaneone

1700 1500 1000

wavenumber cm<sup>-1</sup>

BENDS

**FINGERPRINT**

Transmittance %

no O-H

sp<sup>2</sup> CHs

C=C stretch

sp<sup>3</sup> CHs

3374, 3174, 3123, 3050

2974, 2934, 2901, 2864, 2824, 2786

1641, 1614

1072, 966, 814

ethyl vinyl ether

1700 1500 1000

wavenumber cm<sup>-1</sup>

BENDS

**FINGERPRINT**

Transmittance %

H-BONDED OH

broad 3336

sp<sup>3</sup> CHs

sp<sup>2</sup> CHs

1662 C=C stretch

C=C-CH<sub>2</sub> BEND

1709, 1662, 1622

1036, 996

2-methyl-2-propen-1-ol

1700 1500 1000

wavenumber cm<sup>-1</sup>

STRETCH

**FINGERPRINT**

Transmittance %

no O-H

aldehyde C-H stretch

aldehyde C-H bond

1733 strong C=O stretch

2977, 2897

2-methylpropanal

1700 1500 1000

wavenumber cm<sup>-1</sup>

sp<sup>3</sup> CHs

Chemical structures and labels:

- (C)** C1CCC1O (Cyclobutanol)
- (B)** CCC(=O)C (2-butanone)
- (E)** CCOC=C (ethyl vinyl ether)
- (D)** CC(C)=CO (2-methyl-2-propen-1-ol)
- (A)** CC(C)C=O (2-methylpropanal)