



- c. After the sample has stabilized, close the air-bleed valve on the oven and continue drying. Generally, 3 hr of drying in a vacuum oven is sufficient.
  - d. Remove the sample from the oven and carefully transfer it to an agate mortar. Grind the sample to pass a Standard No. 80 sieve, and return it to the vacuum oven for approximately 1 hr.
2. Solid sample preparation:

Grind the solid to pass a Standard No. 80 sieve and dry overnight in an aluminum dish in the vacuum oven at 60°C and 30 in. of mercury.

3. Remove the sample from the oven. Grind 2 mg of the sample with 250 mg of KBr until it forms a uniform mixture. This breaks up any lumps of KBr and provides a preliminary mix to the specimen.
4. Transfer the mixed material to an electronic mixer and blend in accordance with the manufacturer's recommendations.
5. Place the powdered specimen into the pellet die and follow the manufacturer's instructions to prepare a suitable disk under vacuum. Thoroughly clean the die after each use. Be careful to avoid damaging the polished die faces.
6. Place the disk in an infrared spectrophotometer and collect the transmittance spectrum.

Test results are used for comparison purposes only. Each spectrum is compared with samples run previously. Two materials are considered similar if all of the absorption peaks match as to wavelength and relative magnitude.

#### **D. HEALTH AND SAFETY**

It is the responsibility of the user of this test method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. Prior to handling, testing or disposing of any materials, testers must be knowledgeable about safe laboratory practices, hazards and exposure, chemical procurement and storage, and personal protective apparel and equipment.

Caltrans Laboratory Safety Manual is available at:

[http://www.dot.ca.gov/hq/esc/ctms/pdf/lab\\_safety\\_manual.pdf](http://www.dot.ca.gov/hq/esc/ctms/pdf/lab_safety_manual.pdf)

Users of this method do so at their own risk.

**End of Text  
(California Test 416 contains 2 pages)**