

METHODS OF TESTING (Full details of test methods are available on request)

1. **Viscosity (1% Solution)**  
Pour 450 g distilled water into a 600 ml glass beaker. Add 5.00 g product slowly while stirring the solution with an electric stirrer fitted with a propeller-type metal paddle. Adjust the weight of solution to 500 g with additional distilled water, rinsing the walls of the beaker. Stir for two hours at 800 rpm, then adjust the temperature to 20 degrees C, stirring by hand to eliminate any layering effects. Measure the viscosity immediately using an LV model of the Brookfield<sup>1</sup> viscometer at 60 rpm, with spindle 1, at 20 degrees C.
2. **pH (1% Solution)**  
Measure the pH of a 1% solution at 20 degrees C using a pH meter.
3. **Loss on Drying**  
Spread 5-10 g product evenly on a predried tared watch glass and weigh accurately. Dry in an oven at 105 ± 1 degrees C for four hours. Cool in a desiccator and re-weigh.
4. **Particle Size**  
Sieve 10 g product on the specified British Standard Screens (200 mm diameter) for three minutes each screen using an Alpine<sup>2</sup> Air Jet Sieve. Use the finest mesh sieve first and progress to the coarsest mesh. Record the weight of product remaining on each screen and calculate the percentage which passes through each specified screen.
5. **Powder Colour**  
Place powder in an optically flat Photovolt cuvette to a depth of 2 cm. Do not shake or tap. Using a green tristimulus filter, measure the powder colour on a Photovolt<sup>3</sup> reflectometer standardised against a white enamel standard of 75% reflectance.
6. **Ash**  
Use the procedure given in the current edition of the Food Chemicals Codex.
- 7-12. **Lead, Arsenic, Copper, Zinc, Mercury and Cadmium**  
These metals may be determined by atomic absorption techniques.
13. **Microbiological Limits**  
For bacteria (TVMAC), E coli, salmonella, yeast and mould, follow the procedures as given for microbial limit tests in the current edition of the United States Pharmacopoeia. Method for coliform is available on request. For bacteria, plate out 1 ml of 1% solution and incubate for 48 hours at 30-35 degrees C. For yeast and mould plate out 1 ml of 1% solution on acidified potato dextrose agar and incubate for 5 days at 20-25 degrees C. Express results as colony forming units (c.f.u.) per gram.

SUPPLIERS OF TESTING EQUIPMENT

<sup>1</sup> Brookfield Engineering Laboratories, Stoughton, Massachusetts.

<sup>2</sup> Hosakawa Micron Ltd, Augsburg, Germany.

<sup>3</sup> Photovolt Corporation, Indianapolis, Indiana