## PROPINEB 177

$$\begin{bmatrix} -Zn - S - C - NH - CH_2 - CH - NH - C - S - - \\ || & | & || & || \\ S & CH_3 & S \end{bmatrix}_n$$

$$n > 1$$

ISO common name Propineb

Chemical name Zinc propylenebis(dithiocarbamate) (IUPAC);

[[(methyl-1,2-ethanediyl)bis(carbamothioato)](2-]

zinc (CA; 9016-72-2)

Empirical formula  $C_5H_8N_2S_4Zn$ 

*RMM* 289.8

*m.p.* Decomposes above 160 °C

Solubility Practically insoluble in all common solvents

Description White to yellowish powder

Stability Stable in cool, dry storage; decomposed in strongly

acid or alkaline media

Formulations Wettable powders and dusts

## PROPINEB TECHNICAL \*177/TC/M/-

- **1 Sampling.** Take at least 200 g. Fill the bottles completely and store them (not longer than 4 weeks) at a temperature below 20 °C.
- 2 Identity tests
- **2.1 CS<sub>2</sub> evolution.** MT 153.
- **2.2 Spot test.** MT 130.
- 2.3 Identification of amines. MT 152.
- **2.4 Zinc.** MT 154.
- **3 Propineb.** As for maneb technical **61**/TC/M/3 CIPAC E, *p. 116*, omitting the treatment with tetrasodium EDTA, and except: (c) Calculation

Propineb content = 
$$\frac{144.9 \times N \times (t - b)}{w}$$
 1g/kg

**Repeatability r** = 10 g/kg at 874 g/kg active ingredient content **Reproducibility R** = 18 g/kg at 874 g/kg active ingredient content

- **4 Zinc.** As for mancozeb technical **34**/1/M/4.
- 5 Arsenic. MT 99.

## PROPINEB WETTABLE POWDERS \*177/WP/M/-

- **1 Sampling.** Take at least 500 g. Fill the bottles completely and store them (not longer than 4 weeks) at a temperature below 20 °C.
- **2 Identity tests.** As for propineb technical **177**/TC/M/2.
- **3 Propineb.** As for propineb technical **177**/TC/M/3.

**Repeatability r** = 10 g/kg at 700 g/kg active ingredient content **Reproducibility R** = 29 g/kg at 700 g/kg active ingredient content

<sup>\*</sup> CIPAC method 1981. Prepared by the Dithicarbamate Panel of PAC-UK.Chairman: A Stevenson (Robinson Bros. Ltd)

- **4 Zinc.** As for mancozeb technical **34**/1/M/4.
- 5 Arsenic. MT 99.
- **6 Suspensibility.** As for maneb wettable powders **61**/WP/M/5, CIPAC E, *p. 120*, except:

Mass of propineb in the 25 ml of suspension =  $0.1449 \times N \times (t - b)2g$ .

## PROPINEB DUSTABLE POWDERS \*177/DP/M/-

- **1 Sampling.** Take at least 1 kg. Fill the bottles completely and store them (not longer than 4 weeks) at a temperature below 20 °C.
- **2 Identity tests.** As for propineb technical 177/TC/M/2.
- **3 Propineb.** As for propineb technical 177/TC/M/3.
- **4 Zinc.** As for mancozeb technical **34**/1/M/4.
- 5 Arsenic. MT 99.
- **6 Dry sieve test.** As for maneb dustable powders **61**/DP/M/5, CIPAC E, p. 121, except: Mass of propineb in the residue  $= 0.1449 \times N \times (t b)$  3g.

<sup>\*</sup> CIPAC method 1981. Prepared by the Dithicarbamate Panel of PAC-UK.Chairman: A Stevenson (Robinson Bros. Ltd)