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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Rohm and Haas Company, Maneb (Dithane M-22), EPA
Registration No. 707-78, Octanol/Water Partition
Coefficient (EPA Accession No. 257953). RCB No. 2820

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and

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Rohm and Haas Company has submitted Octanol/Water Partition coefficient data for Maneb (Dithane M-22) - EPA Accession No. 257953 dated April 30, 1985.

Analyses were conducted at the company's laboratory located at Spring House, PA. from August 6, 1982 to September 22, 1982.

Maneb (Dithane M-22), 0.1 gm. was weighed into a 50 ml glass stoppered centrifuge tube and dissolved into 20 ml of distilled octanol (presaturated with distilled water). Twenty ml. of distilled water (saturated with distilled octanol) were added to the centrifuge tube and the contents were shaken for 45 minutes on a reciprocating shaker at 25°C.

The phases were separated by centrifugation at room temperature for a period of five minutes. An aliquot equivalent to 16-18 ml of the top octanol phase was removed and filtered through a 0.5 μ m millipore filter. Similarly 16-18 ml of lower aqueous phase was removed and filtered through a 0.45 μ m Gelman Acrodisc filter. Each sample was analyzed for ethylenebisdithiocarbamate (EBDC) content using a gas chromatographic method for dithane residue based on measurement of liberated CS₂.

The results are as follows:

	<u>First experiment</u>	<u>Repeat experiment</u>
	<u>9/7/82</u>	<u>9/9/82</u>
ppm in octanol	119.2	116.0
ppm in water	229.1	328.9
Partition coefficient (Kow)	0.51	0.35

$$\text{Av. Kow} = 0.43 \pm 0.12$$

Conclusion:

The method for calculation of octanol/water partition coefficient is valid.

cc: Maneb Registration Standard File, S.F., R.F., Reviewer, RPB,
PMSD/ISB(Eldredge), L. Rossi, (PM-21), Circ., TOX (Coberly), EAB
TS-769:RCB:G.Makhijani:vg:CM#2:Rm804:X77484:10/16/86
RDI: R.Perfetti, 11/20/87