



EXPEDITE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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SEP 11 1985

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

Subject: Special Review for Maneb
EBDC Data Call In. Task Force submission of product chemistry
data 8/29/85. Accession Nos. 259074 & 259124
[RCB Nos. 1418, 1421 & 1422]

From: Martha J. Bradley, Chemist *MJB*
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Thru: Charles L. Trichilo, Chief *CLT*
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To: H. Jacoby, PM 21
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We have been requested to review product chemistry data submitted by the Maneb Task Force. This review is being expedited at the request of Douglas Camp, Director, Registration Division (9/4/85).

The Maneb Task Force has submitted physical and chemical property data applicable to all mane products. Product chemistry data relevant to individual registrant's products, Series 61 and 62 of Part 158.120, are being submitted separately by the registrants.

Series 63 Physical and Chemical Characteristics

63-2 Color - yellow

63-3 Physical state - solid powder

63-4 Odor - odorless

63-5 Melting point - decomposes on heating, without melting

63-6 Boiling point - Not applicable, the manufacturing use product is a solid at room temperature.

63-7 Density - To be submitted by individual registrants

63-8 Solubility - Solubility of Maneb was determined by the OECD Method 105, flask procedure and Rohm and Haas Method 1853-1 for Maneb (modified Keppel procedure) at 24°C

methanol	0.133 g/l
dichloromethane	0.0137 g/l
toluene	<0.0010 g/l
hexane	0.0033 g/l
water	0.417 g/l

63-9 Vapor pressure - $<10^{-7}$ mbar at 20°C (Royal Society of Chemistry, The Agrochemicals Handbook, 1983)

63-10 Dissociation constant - the pKa = 7.91, the mean of three analyses ranging from 7.63 to 8.14

63-11 Octanol water partition coefficient - See memo of 8/29/85, R. Loranger.

63-12 pH - The pH of the technical material as an aqueous suspension = 8.98 at 25°C and the pH of deaerated distilled water = 6.72 at 25°C. The pH was determined by the OTS method.

63-13 Stability - The product loses activity under the prolonged influences of air, heat and moisture. It is decomposed on heating over 135°C, to give flammable products. It is decomposed also in acidic media. (Royal Society of Chemistry, The Agrochemicals Handbook, 1983)

A 10 day storage stability study was conducted for Maneb technical. A mean of 88.6% recovery was obtained for a 1000 ug/ml sample stored at 50°C and a recovery of 93.4% was obtained for a similar sample stored at 23°C. A thirty day accelerated study and a one year study will be submitted on completion.

63-14 Oxidizing or reducing action - The Maneb Task Force reports that the manufacturing use product contains no oxidizing or reducing agents.

63-15 Flammability - The Maneb Task Force reports that the manufacturing use product contains no combustible liquids.

63-16 Explodability - The Maneb Task Force reports that the manufacturing use product is not potentially explosive.

63-17 Storage stability - The Maneb Task Force has not submitted this information for manufacturing use or end use products.

63-18 Viscosity - The Maneb Task Force reports that the manufacturing use product is not a liquid.

63-19 Miscibility - The Maneb Task Force reports that the manufacturing use product is not an emulsifiable liquid to be diluted with petroleum solvents.

63-20 Corrosion characteristics - The Maneb Task Force reports that the manufacturing use product does not exhibit any corrosive characteristics.

63-21 Dielectric breakdown voltage - The Maneb Task Force reports that this characteristic is not applicable to Maneb end use products.

Conclusions and Recommendations

1. Product chemistry Series 61, Product Identity and Composition and Series 62, Analysis and Certification of Product Ingredients have not been submitted. This information is to be submitted by the individual registrants. The density or specific gravity, Series 63-7, is also to be submitted by the individual registrants.

2. The following physical and chemical characteristics, Series 63, have been adequately addressed: 63-2 color, 63-3 physical state, 63-4 odor, 63-5 melting point, 63-6 boiling point, 63-8 solubility, 63-9 vapor pressure, 63-10 dissociation constant and 63-12 pH.

3. Series 63-11, octanol water partition coefficient is needed (see R. Loranger, memo of 8/29/85).

4. The remainder of the stability studies, 63-13, should be submitted.

5. Storage stability, 63-17, for the manufacturing use and end use products should be submitted.

6. The following physical and chemical characteristics have been addressed by the Maneb Task Force and claimed that they are not applicable or required for their manufacturing and/or end use products: 63-14 Oxidizing or reducing action, 63-15 flammability, 63-16 explodability, 63-18 viscosity, 63-19 miscibility, 63-20 corrosion characteristics, 63-21 dielectric breakdown voltage. We cannot determine whether the claims regarding these characteristics are correct until the composition of these products is submitted. Although the old confidential formulas are available in RD, in an informal discussion with M. Branigan (Special Review, RD), it was decided that a review of the new CSFs which are being submitted would be preferable.

cc: Reviewer, EBDC SF, R F, circu, TOX, PM 21, Special Review F., Reg. Std. F.
Frank Sanders, Amy Rispin, FMSD/ISB
RDI:Section Head:RSQuick:Date:9/10/85:RDS:9/10/85
TS-769:RCB:Reviewer:MJBradley:MJB:CM#2:RM:810:557-7377:9/09/85