

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: OCT 16 1981

SUBJECT: M & T Chemicals Inc. request for a conditional registration for their new product - antifouling paint Polyflo 2018 (bioMet 304/CuO Accession numbers 245597 and 245656).

No response to M&T is necessary

FROM: Aquatic Biologist, Review Section 3.
Ecological Effects Branch - HED (TS-769) *AG*

TO: Richard Mountfort, Product Manager No. 23
Registration Division - (TS-767)

THRU: David Coppage, Head Section 3 *DC*
Ecological Effects Branch - HED (TS-769)

THRU: Clayton Bushong, Chief *CB*
Ecological Effects Branch - HED (TS-769)

The Ecological Effects Branch (EEB) has evaluated the fish and wildlife toxicological studies presented by M & T Chemicals Inc. in support of a request for a conditional registration of their antifouling paint Polyflo 2018. The two active ingredients of Polyflo - cuprous oxide Shaugh. No. 025601 and tributyltin methacrylate Shaugh. No. 083120 are presently registered with EPA. This incremental risk determination covers inert ingredients that have been added to Polyflo,

The attached data validation sheets, each containing a computer data validation printout, indicate that Polyflo is from highly to very highly toxic to aquatic organisms when these are immersed in aqueous mixtures of Polyflo 2018 at concentration that vary between 0.160 ppm for the sheepshead minnow and 0.056 ppm for the rainbow trout.

The following table summarizes the results obtained in the aquatic acute toxicity tests with paint bioMet 304/CuO (2018):

<u>Test Species</u>	<u>Test Type</u>	<u>Test Results (ppm)</u>	<u>95% Confid. Limits (ppm)</u>
Bluegill sunfish	96-h LC50	0.11	0.10 - 0.13
Rainbows trout	96-h LC50	0.056	0.048 - 0.066
<u>Daphnia magna</u>	48-h LC50	0.058	0.040 - 0.085
Sheepshead minnow	96-h LC50	0.160	0.11 - 0.22
Mysid shrimp	96-h LC50	0.012	0.006 - 0.012

INERT INGREDIENT INFORMATION IS NOT INCLUDED

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All the above tests followed EPA - approved protocols and were rated as acceptable (or core under present EEB rating system). Please see attached data validation sheets.

For adverse environmental effects to occur the necessary combination of toxicity and exposure levels must exist. In the case of Polyflo paint high aquatic toxicity exists; however, because of the use pattern no significant levels of exposure for aquatic organisms are likely. We at EEB, therefore believe that the use of Polyflo 2018 paint, as proposed, will not pose any significant environmental risks.

Should any further information be required on this matter please feel free to call us at (703) 557-5600.


Alvaro A. Yambure

cc. EEB files Nos. 025601 and 083120