



Special Review Announcement

SRA2000-01

Special Review of Organotin Antifouling Paints for Ship Hulls

The purpose of this document is to notify registrants, pesticide regulatory officials, and other interested parties that products containing organotins which are intended for use as antifouling paints for ship hulls are now subject to a special review under Section 19 of the Pest Control Products Regulations.

(publié aussi en français)

May 9, 2000

This document is published by the Submission Management and Information Division, Pest Management Regulatory Agency. For further information, please contact:

**Publications Coordinator
Pest Management Regulatory Agency
Health Canada
2250 Riverside Drive
A.L. 6606D1
Ottawa, Ontario
K1A 0K9**

**Internet: pmra_publications@hc-sc.gc.ca
www.hc-sc.gc.ca/pmra-arla/
Information Service:
1-800-267-6315 or (613) 736-3799
Facsimile: (613) 736-3798**



Purpose

The purpose of this document is to notify registrants, pesticide regulatory officials, and other interested parties that products containing organotins which are intended for use as antifouling paints for ship hulls are now subject to a special review under Section 19 of the Pest Control Products Regulations.

Introduction and Background

Although antifouling paints for ship hulls have been used in Canada for many years, they first were regulated under the *Pest Control Products Act (PCPA)* in 1989. Sale of unregistered antifouling paints ceased on June 16, 1989, and the use of unregistered products ceased on December 31, 1989. After December 31, 1989, only antifouling paints that were registered under the PCPA were allowed for sale and use in Canada.

The conditions for registration of antifouling paints containing tributyltin compounds included release-rate data. In 1989, Canada adopted the release-rate standard established for tributyltin in the United States, i.e., maximum 4 μg of tributyltin per square centimetre of hull surface per day. In addition, as in the United States, the use of tributyltin paints was prohibited on vessels less than 25 m in length, with the exception of those vessels with aluminum hulls.

Currently in Canada there are three different organotin technical grade active ingredients (TGAIs) registered for use in manufacturing concentrates (MCs) and end-use products (EPs). These are bis tributyl tin oxide, tributyl tin methacrylate and tributyl tin fluoride. See Appendix I for a complete list of registered TGAIs, MCs and EPs.

International Activity on Antifouling Coatings

The Marine Environment Protection Committee (MEPC) of the International Maritime Organization (IMO) has been considering the issue of antifouling paints since its 26th meeting in September of 1988, when it was requested to consider the need for taking measures under relevant legal instruments to restrict the use, for environmental reasons, of organotin antifouling paints on seagoing vessels.

Based on text prepared by the MEPC, the IMO Assembly adopted resolution A.895(21), *Anti-fouling Systems Used on Ships*, in November 1999. This resolution calls for development of a global, legally binding instrument to address the harmful effects of antifouling systems and indicates that the instrument should ensure a prohibition on the application of organotin antifouling paints by January 1, 2003, and a prohibition on their presence on ship hulls by 2008. The IMO Assembly approved the holding of a diplomatic conference in 2001 to adopt the legal instrument called for in the resolution.

Other provisions of the resolution are that industries should be encouraged by governments to develop alternative antifouling systems, and that governments should develop assessment

procedures for evaluating antifouling systems, including impacts on environment and society and commercial interests.

Canada has played a strong role in the MEPC considerations of the use of organotin antifouling paints and supported the resolution including the need for a global instrument.

Implementation of the Phase-out in Canada

Although the proposed text of the global instrument is not yet completed, Canada is proceeding in good faith with steps needed to prohibit the use of organotin antifouling paints by January 1, 2003.

The Pest Management Review Agency (PMRA) has been considering the steps necessary to ensure that no product will be available for use by January 1, 2003. Although there are only four organotin antifouling end-use products registered in Canada, the removal of these products from use will still require some planning and effort. Ideally this will be accomplished in a gradual manner, with the least disruption to registrants and users.

New Product Applications

As of the date of this memorandum, the PMRA is no longer accepting or processing applications for registration of new organotin antifouling paints. Submissions that are currently on hand in the PMRA and any new submissions received after the date of this memorandum will be returned to the applicants.

The rationale for this decision lies in the timing of registration of new products vis-à-vis the last-use date of December 31, 2002. Under current PMRA submissions management policy and timelines, if an application is received in January 2000 or is already in the early stages of processing within the PMRA, the very earliest that the product could be registered is December 2000. This would leave 2001 and 2002 for production, promotion, and sale of new products. Although this would not likely result in an overall increase in use of organotin antifoulants during those years, it would add to the challenges of phasing products out in time for the effective date of the use prohibition. In the next 2 to 3 years, registrants should focus on developing a strategy for the withdrawal of the organotin antifoulants from use. This also should be the time period for acquainting users with the properties of non-organotin alternatives and promoting practical experience in their use.

Current Registrations

All organotin antifouling products are currently registered on a time-limited basis, i.e., for 1 year periods. Registration of these products after 2000 will be contingent on the provision, by registrants, of information regarding plans for phasing them out (see below). Registration would have to be continued to provide for legal use up to the last day stipulated in the international agreement or the date when the products can be effectively replaced.

As 2002 will be the last year of use, it is also the year when the focus should be on using up stocks so that the expense of collecting and disposing of unsold and unused products can be avoided. Registrants should cease supplying the market in the time frame necessary to ensure products are not available at any level after January 1, 2003.

Phase-out Plans

Registrants will be required to provide information regarding plans to phase out the manufacture, sale, and distribution of the organotin antifoulants. Any phase-out plan will require the input and confirmation of the user community to avoid the challenges associated with residual products requiring disposal after December 31, 2002. Users will also have to take some responsibility to ensure that they do not have stock on hand after the last-use date.

Alternative Products

There is a great deal of interest with respect to the alternative non-organotin antifouling paints that are, or will be, available to replace organotin antifouling paints. The PMRA is in the process of preparing use summaries of the non-organotin antifouling paints registered for use in Canada, and is also taking stock of applications to register possible alternatives. The PMRA will be in contact with regulatory authorities from other countries, notably the United States, and with users in an effort to confirm that the products currently available will meet the needs and to harmonize the introduction of new replacement products.

Appendix I

**Table 1 Organotin Antifouling Paints
Technical Grade Active Ingredients**

Active Name	Guarantee	Company	Reg. No.	Product Name
Tri- <i>N</i> -butyltin oxide	95	Elf Atochem of Canada Ltd.	18077	Biomet TBTO
Tri- <i>N</i> -butyltin fluoride	95	Elf Atochem of Canada Ltd.	23280	Biomet Tributyltin Fluoride
Tri- <i>N</i> -butyltin methacrylate	97	Elf Atochem of Canada Ltd.	23282	Biomet Tributyltin Methacrylate

**Table 2 Organotin Antifouling Paints
Manufacturing Concentrates**

Active Name	Guarantee	Company	Reg. No.	Product Name
Tri- <i>N</i> -butyltin methacrylate	32.6	Elf Atochem of Canada Ltd.	23482	Biomet 300 Antifouling Agent
	37.21	Elf Atochem of Canada Ltd.	23483	Biomet 303/60 Antifouling Agent
	36.26	Elf Atochem of Canada Ltd.	23484	Biomet 304/60 Antifouling Agent
	38.54	Elf Atochem of Canada Ltd.	26164	Biomet 300/60 Antifouling Agent

**Table 3 Organotin Antifouling Paints
End-use Products**

Active Name	Guarantee	Company	Reg. No.	Product Name
Cuprous oxide (also expressed in terms of copper as elemental) tributyltin oxide, tri- <i>N</i> -butyl methacrylate	33.0 (29.2), 0.4, 8.8	International Paint Inc.	21316	Intersmooth hisol BFA253 SPC (blue and other colours)
	35.0 (31.0), 0.4, 8.9	International Paint Inc.	21368	Interswift BKA007 (red) (C493007)
Tri- <i>N</i> -butyltin fluoride, tributyl-tin-methacrylate	3.5, 6.8	International Paint Inc.	23281	Tri-Lux IIT Copolymer Antifouling Paint (red, white, blue, black)
Tributyl-tin-methacrylate	10.06	Kop-coat Inc.	26113	Alumacoat II Antifouling Paint (blue, black, white)