



Re-evaluation Note

REV2006-08

Re-evaluation of Dioxaborinanes

The purpose of this document is to inform registrants, pesticide regulatory officials and the Canadian public that Health Canada's Pest Management Regulatory Agency (PMRA) has re-evaluated dioxaborinanes [2,2'-(1-methyltrimethylenedioxy)bis-(4-methyl-1,3,2-dioxaborinane) and 2,2'-oxybis(4,4,6-trimethyl-1,3,2-dioxaborinane)]. The risk assessment indicates that the use of dioxaborinanes as preservative in jet fuel and other hydrocarbon fuels presents minimal risk to workers or the environment.

The PMRA has determined that this active ingredient is acceptable for continued registration. Mitigation measures to further protect workers are specified in this Re-evaluation Note. The registrants have been informed by letter of the specific requirements affecting their product registrations and the regulatory options available to comply with this decision.

(publié aussi en français)

26 June 2006

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

Publications
Pest Management Regulatory Agency
Health Canada
2720 Riverside Drive
A.L. 6605C
Ottawa, Ontario
K1A 0K9

Internet: pmra_publications@hc-sc.gc.ca
www.pmra-arla.gc.ca

Information Service:
1 800 267-6315 or 613 736-3799
Facsimile: 613 736-3758



ISBN: 0-662-43510-9 (0-662-43511-7)

Catalogue number: H113-5/2006-8E (H113-5/2006-8E-PDF)

© Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services
Canada 2006

All rights reserved. No part of this information (publication or product) may be reproduced or transmitted in any form or by any means, electronic, mechanical photocopying, recording or otherwise, or stored in a retrieval system, without prior written permission of the Minister of Public Works and Government Services Canada, Ottawa, Ontario K1A 0S5.

1.0 Chemical Identification

Active Substances	CAS Number
2,2'-Oxybis(4,4,6-trimethyl-1,3,2-dioxaborinane)	14697-50-8
2,2'-(1-Methyltrimethylenedioxy)bis-(4-methyl-1,3,2-dioxaborinane)	2665-13-6

2.0 Product Uses

In Canada, dioxaborinanes are registered for use as fungicides and microbiocides in fuel tanks and fuel lines for all types of hydrocarbon fuels. Products containing dioxaborinanes (esters of boric acid) were first registered in 1968. These products include aviation jet fuels, kerosene, diesel fuels, home heating oil, marine diesel and bunker “C” fuel (heavy diesel fuel used as heating oil or marine fuel). Dioxaborinanes prevent the growth of slime-forming fungi and bacteria by inhibiting the production of spores. They also act as a microbiocide/microbiostat against slime-forming bacteria.

3.0 Health and Environmental Assessment

Publicly available information was considered in this re-evaluation. Information on the toxicology of dioxaborinanes considered by the PMRA is summarized in the United States Environmental Protection Agency (USEPA) Reregistration Eligibility Document (RED) for Biobor¹.

Minimal exposure and risk to workers can be expected from the current registered uses of dioxaborinanes.

Dioxaborinanes are not registered for use on food; therefore, dietary exposure and risk are not expected.

An environmental risk assessment was not conducted because the currently registered use pattern is not expected to result in significant environmental exposure.

¹ The USEPA Reregistration Eligibility Document for Biobor is available at www.epa.gov/oppsrrd1/REDs/old_reds/biobor.pdf.

4.0 Proposed Regulatory Action

The Agency has concluded that the use of dioxaborinanes and their end-use products is acceptable for continued registration.

The **PRECAUTIONS** section of the label must be upgraded to include the following statement:

Personal Protective Equipment (PPE):

Mixers, loaders and others involved in the preparation, use and clean-up of dioxaborinane must wear:

- a long-sleeved shirt and long pants; and
- eye protection.