

## Evaluation Report for Category B, Subcategory B.1.1 Application

**Application Number:** 2005-2309  
**Application:** New source by same registrant  
**Product:** VANCIDE<sup>®</sup> NaMBT  
**Registration Number:** 28655  
**Active ingredients (a.i.):** 2-mercaptobenzothiazole, present as sodium salt at 50%  
**PMRA Document Number:** **1480212**

### Background

Sodium salt of 2-mercaptobenzothiazole technical grade active ingredient was first registered in July 1957. Sodium salt of 2-mercaptobenzothiazole is registered for use as a preservative in the paper industry, in cutting oils, in starch paste, in emulsion resins, in cellulose solutions and in cotton fabrics. For specific details of uses, application rates and methods, precautions, restrictions, and personal protective equipment requirements, refer to the product label.

### Purpose of Application

This submission was made in response to the re-evaluation PACR2004-15 which stated that a technical grade of active ingredient was required for continued registration of commercial end use products using sodium salt of 2-mercaptobenzothiazole. This new source of technical grade active ingredient “VANCIDE<sup>®</sup> NaMBT” (Reg. No. 28655) is intended to be used in the manufacturing, formulating and repacking of end-use products.

### Chemistry Assessment

Common Name: sodium mercaptobenzothiazole or NaMBT  
Chemical Name: 2-mercaptobenzothiazole, sodium salt

VANCIDE® NaMBT has the following properties:

Property	Result
Colour and physical state	Yellow to brown liquid
Nominal concentration	44.25% for 2-mercaptobenzothiazole, present as sodium salt
Odour	Characteristic mercaptan-sulfur
Specific gravity	1.25-1.29 at 25°C
Vapour pressure	3.2 kPa at 25°C
pH	* 11.5
Solubility in water	Completely soluble
n-Octanol/water partition coefficient	$K_{ow} = 0.64$ for the isolated solid salt

With the exception of the storage stability study, the chemistry requirements for VANCIDE® NaMBT have been completed.

### Health Assessments

VANCIDE® NaMBT (50% a.i.) is considered to be slightly acutely toxic via the oral route of exposure. Based on a pH of 11.5, the technical is considered to be corrosive to eyes and skin.

### Environmental Assessment

The environmental review of this submission was limited to an assessment of a microcontaminant, which is part of a CBI-protected chemical composition, and a label review. The Environmental Assessment Directorate has examined the fate and toxicity of this microcontaminant and finds that there is little to no concern arising from its presence in this product given the limited use pattern.

### Value Assessment

Value assessment was not required.

### Conclusion

The PMRA has completed an evaluation of the subject application and has determined that VANCIDE® NaMBT is eligible for full registration.

## References

### Studies/Information Provided by Applicant/Registrant

#### Chemistry

PMRA Document Number	Reference
1074590	Product Identity and Composition of Sodium 2- Mercaptobenzothiazole. [PLUS 8 PAGES OF ADMIN MATERIAL FROM EPA SUBMISSION], DACO: 2.1,2.11,2.2,2.3,2.4,2.5,2.6,2.7,2.8,2.9
1074591	NOTE TO REVIEWER. Includes correspondence with EPA., DACO: 2.16
1074592	1990, Analysis and Certification of Product Ingredients of Sodium Mercaptobenzothiazole, DACO: 2.12,2.13
1074593	1992, Supplement to MRID 41601402, Analysis and Certification of Product Ingredients, DACO: 2.12,2.13
1074594	1994, Storage Stability of Sodium 2- Mercaptobenzothiazole., DACO: 2.14
1074595	1994, Corrosion Characteristics of Sodium 2- Mercaptobenzothiazole, DACO: 2.14
1074596	1990, Physical and Chemical Characteristics of Sodium 2-Mercaptobenzothiazole., MRID: 41601403, DACO: 2.14
1074597	1992, Solubility of Sodium 2-Mercaptobenzothiazole., MRID: 42580801, DACO: 2.14
1074598	1990, Physical and Chemical Characteristics of Sodium 2-Mercaptobenzothiazole., MRID: 41651200-01, DACO: 2.14
1074599	1992, Stability of Sodium 2-Mercaptobenzothiazole. Supplement to MRID 41601403; 92-10-4471, DACO: 2.14
1074600	1993, Oxidizing/Reducing Action of Sodium 2- Mercaptobenzothiazole., MRID: 42848201, DACO: 2.14
1122193	DACO: 2.1
1280059	2006, Confidential Business Information - nominal concentration in the final product., DACO: 2.11.3
1315909	2006, R.T. Vanderbilt Co. Inc., DACO Part 2; Chemistry. Section 1 of 2., DACO: 2.1,2.2,2.3,2.3.1,2.4,2.5,2.6,2.7,2.8,2.9
1315910	2006, R.T. Vanderbilt Co. Inc., DACO Part 2; Chemistry. Section 2 of 2., DACO: 2.11,2.12,2.13,2.14

#### Toxicology

PMRA Document Number	Reference
1074246	1990, Acute Oral LD50 of Sodium 2-Mercaptobenzothiazole (NACAP) in Sprague-Dawley rats, Lab Project Number 90.3530.021., DACO: 4.2.1

ISSN: 1911-8082

Catalogue number: xxxxxxxxxxxx (xxxxxxxxxx)

© **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.