# Standard



# BNQ 2410-300/2009

Products Used as Dust Control Agents for Non-Asphalted Roads and Other Similar Surfaces



# BNQ 2410-300/2009

Products Used as Dust Control Agents for Non-Asphalted Roads and Other Similar Surfaces

Produits utilisés comme abat-poussières pour routes non asphaltées et autres surfaces similaires

**ICS**: 71.100.99; 93.080.99



### **REQUEST FOR INFORMATION AND PURCHASE**

Any request for information or purchase of this document may be sent to the Bureau de normalisation du Québec (BNQ) at 333, rue Franquet, Québec, Québec G1P 4C7 [telephone: 418-652-2238, ext. 2437 or 1-800-386-5114; fax: 418-652-2292; E-mail: bnqinfo@bnq.qc.ca; Web Site: www.bnq.qc.ca].

# **REVISION OF BNQ DOCUMENTS**

Collaboration from BNQ document users is essential in keeping our documents up to date. Therefore, any suggestion aimed at improving their contents will be appreciated. We ask you to send us your suggestions or comments on the form at the end of this document.

# **SECOND EDITION — 2009-10-01**

This new edition supersedes the edition dated November 29, 2002.

This document is published in both French and English. In case of incompatibility, the French version prevails.

The electronic or printed version of this document is for personal use only. Distribution to third parties, partners or clients, as well as saving, distribution or use on a computer network is forbidden without written agreement from the BNQ.

Only purchasers duly registered with BNQ Customer Service will receive document updates. Notifications and the catalogue may be consulted at all times on the BNQ Web site [www.bnq.qc.ca] to verify if a more recent version of a document exists or if amendments or errata have been published.

If a registered purchaser wishes to continue to receive updates, the purchaser must inform BNQ Customer Service of any change of address as soon as possible.

© BNQ, 2009

All rights reserved. Unless otherwise specified, no part of this document may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilming, without written permission from the BNQ.

ISBN 978-2-551-23864-4 (printed version) ISBN 978-2-551-23865-1 (PDF) Legal deposit — Bibliothèque et Archives nationales du Québec, 2009

# **NOTICE**

#### UNDERSTANDING OF THE NOTION OF EDITION

It is important to note that this edition implicitly includes all the amendments and errata that might eventually be developed, and published separately. It is the responsibility of the users of this document to verify if any amendments or errata exist.

#### **INTERPRETATION**

The verb shall is used to express a requirement that is mandatory in order to comply with this document.

The verb **should**, or the equivalent expressions **it is recommended that** and **ought to**, are used to indicate a useful, but not mandatory, suggestion, or to provide the most appropriate means of complying with this document.

Except for the notes presented as **normative notes** that contain mandatory requirements and are stated only in the lower part of figures and tables, all other **notes** are **informative** (non-mandatory) and provide useful information pertaining to the understanding or intent of a requirement, or to add some clarification or precision.

Normative annexes provide additional requirements that are mandatory in order to comply with this document.

**Informative annexes** provide additional information (non-mandatory) intended to assist in the understanding or use of elements of this document or to clarify its implementation, but they contain no requirements that are mandatory in order to comply with this document.

#### DISCLAIMER OF RESPONSIBILITY

This document was developed as a reference document for voluntary use. It is the responsibility of the users to verify if laws or regulations make the application of this document mandatory, or if trade regulations or market conditions stipulate its use, for example, in technical regulations, inspection plans originating from regulatory authorities, and certification programs. It is also the responsibility of the users to consider limitations and restrictions specified in the Purpose or Scope, or both.

#### **REQUIREMENTS FOR MARKING AND LABELLING**

It is possible that this document contains requirements for marking and/or labelling. In this event, in addition to meeting these requirements, it is also the responsibility of the suppliers of products to comply with the applicable national, provincial or territorial laws and regulations of the jurisdictions where the products are distributed.



# **FOREWORD**

This document was updated by the Standards Development Committee on dust control agents, whose members were:

BELLES-ISLES, Jean-Claude	Association minière du Québec
BURELLE, Suzanne	Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP)
DELISLE, Robert	Ministère des Transports du Québec (MTQ)
GAGNÉ, Jocelyn	Somavrac C.C. inc.
GIUST, Frank	Tembec Inc.
BRULÉ, France	Société d'énergie de la Baie James (SEBJ)
MASSÉ, Luc	Junex
POIRIER, Marc	Sel Warwick inc.
RAYMOND, Jacques	SEBCI inc.
ROBIDOUX, Pierre Yves	National Research Council Canada — Biotech- nology Research Institute
TRIFFAULT-BOUCHET, Gaëlle	Centre d'expertise en analyse environnementale du Québec, Ministère du Développement durable, de l'Environnement et des Parcs
VEILLEUX, Stéphane	Exova Canada Inc.
GAGNÉ, Nicole (coordinator)	Bureau de normalisation du Québec (BNQ)

The participation of Hélène Giguère from the Fédération québécoise des municipalités and Danielle Thomassin from the Ministère du Développement durable, de l'Environnement et des Parcs is also worthy to mention.

The development of this standard was made possible thanks to the financial support of the following organizations: Ministère des Transports du Québec, SEBCI inc., Somavrac C.C. inc., Sel Warwick inc. and Ministère des Affaires municipales, des Régions et de l'Organisation du territoire.



# **CONTENTS**

				Page		
1	PURPOSE AND SCOPE					
2	NORMATIVE REFERENCES					
	2.1 2.2		ERNMENTAL DOCUMENTS REGULATION AND SIMILAR DOCUMENT	1 3		
3	DEFINITIONS					
4	GENERAL REQUIREMENTS					
5	SPECIFIC REQUIREMENTS			5		
	5.1	ΤΟΤΑ	L WEIGHTED SCORE	5		
	5.2		UFACTURER INSTRUCTIONS FOR SPREADING THE DUST ONTROL AGENT	6		
6	SAMPLING AND TEST AND CONTROL METHODS			7		
	6.1 SAMPLING			7		
	<ul><li>6.2 PREPARATION OF SAMPLES</li><li>6.3 ECOTOXICOLOGICAL HAZARD ASSESSMENT METHOD</li></ul>			7 8		
		6.3.1	General	8		
		6.3.2	Complexity Index (Source)	8		
		6.3.3	Presence of Critical Contaminants (Source)	8		
		6.3.4	Level of Acceptable Degradation Achieved (Fate)	9		
		6.3.5	Mobility Index (Fate)	9		
		6.3.6	Bioconcentration Potential of Detected Critical Contaminants	10		
			(Fate)	10		
		6.3.7	Aquatic Toxicity Level ( <i>Effects</i> )	10		
		6.3.8	Soil Toxicity Level ( <i>Effects</i> )	11		
		6.3.9	Genotoxicity Level ( <i>Effects</i> )	11		



	6.4	LEACHING TEST		
		6.4.2 6.4.3	Samples preparation Leaching Toxicity Measurement Presentation of Results	12 13 14 14
7	MAR	KING ANI	D PACKAGING	14
ANNE	X A —		MICAL SUBSTANCES, CRITICAL CONTAMINANTS AND BIOCONCENTRATION FACTORS	16
	TABL	E A.1 —	INORGANIC COMPOUNDS	17
	TABL	E A.2 —	DIOXINS AND FURANS	18
	TABL	E A.3 —	PHENOL COMPOUNDS	19
	TABL	E A.4 —	VOLATILE ORGANIC CONTAMINANTS (VOC)	21
	TABL	E A.5 —	POLYCYCLIC AROMATIC HYDROCARBONS (PAH)	23
ANNE	X B —	INFC	DRMATIVE REFERENCES	24



# PRODUCTS USED AS DUST CONTROL AGENTS FOR NON-ASPHALTED ROADS AND OTHER SIMILAR SURFACES

# 1 <u>PURPOSE AND SCOPE</u>

The purpose of this standard is intended to establish the ecotoxicological requirements for products used as dust control agents, based mainly on an ecotoxicological hazard assessment approach.

This standard does not aim to evaluate the efficiency of dust control agents at reducing dust.

This standard applies to products used as dust control agents in order to limit the creation of dust on non-asphalted roads and other similar surfaces.

It is important to note that the users of this document are responsible for judging whether or not the document is pertinent to their needs.

This document was developed to serve as a reference document for conformity evaluation activities of specific products.

NOTE — Conformity evaluation is defined as the systematic examination of the extent to which a product fulfils specified requirements.

#### 2 <u>NORMATIVE REFERENCES</u>

For the purpose of this document, the following reference documents contain necessary requirements and are referred to in appropriate places in the text:

# 2.1 GOVERNMENTAL DOCUMENTS

CENTRE D'EXPERTISE EN ANALYSE ENVIRONNEMENTALE DU QUÉBEC. Guide d'échantillonnage à des fins d'analyses environnementales — Cahier 8 : Échantillonnage des matières dangeureuse, Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP), Québec, Gouvermement du Québec, 2008, 100 p.