Canadian General Standards Board

Office des normes générales du Canada

CGSB

ONGC

CAN/CGSB-3.0
No./Nº 122.1-95
July/Juillet 1995

WITHDRAWAL

RETRAIT

February 2003

Février 2003

CANADIAN GENERAL STANDARDS BOARD

METHODS OF TESTING PETROLEUM AND ASSOCIATED PRODUCTS

CHLORIDES IN GLYCOL (QUALITATIVE DETECTION)

This CGSB test method is hereby withdrawn because the specification 3.856, Fluid, Deicing-Defrosting Concentrate for Aircraft Surfaces, that referenced this test method has been withdrawn.

OFFICE DES NORMES GÉNÉRALES DU CANADA

MÉTHODES D'ESSAI DES PRODUITS PÉTROLIERS ET PRODUITS CONNEXES

CHLORURES DANS LE GLYCOL (DÉTECTION QUALITATIVE)

Cette méthode d'essai de l'ONGC est retirée par le présent avis parce que la spécification 3.856, Liquide dégivrant-dégelant concentré pour surfaces d'aéronefs, qui y réfère a été retirée.

Canada

CGSB ONGC

Canadian
General
Standards
Board

CAN/CGSB-3.0
No. 122.1-95

Methods of Testing Petroleum and Associated Products

Chlorides in Glycol (Qualitative Detection)

Withdrawn/Retirée



National Standard of Canada

The CANADIAN GENERAL STANDARDS BOARD (CGSB), under whose auspices this standard has been developed is a government agency within the Federal Department of Supply and Services. CGSB is engaged in the production of voluntary standards in a wide range of subject areas through the media of standards committees and the consensus process. The standards committees are composed of representatives of relevant interests including producers, consumers and other users, retailers, governments, educational institutions, technical, professional and trade societies, and research and testing organizations. Any given standard is developed on the consensus of views expressed by such representatives. The Minister's Advisory Council on CGSB reviews the results of the consensus process.

CGSB has been accredited by the Standards Council of Canada as a national standards-writing organization. The standards that it develops and offers as National Standards of Canada conform to the criteria and procedures established for this purpose by the Standards Council of Canada. In addition to standards it publishes as national standards, CGSB produces standards to meet particular needs, in response to requests from a variety of sources in both the public and private sectors. Both CGSB standards and national standards developed by CGSB are developed in conformance with the policies described in the Policy Manual for the Development and Maintenance of Standards by CGSB.

CGSB standards are subject to review and revision at any time, so as to ensure that they keep abreast of technological progress. Suggestions for their improvement, which are always welcome, should be brought to the notice of the standards committees concerned. Changes to standards are issued either as separate amendment sheets or in new editions of standards.

An up-to-date listing of CGSB standards, including details on latest issues and amendments, and ordering instructions, will be found in the CGSB Catalogue, which is published annually and is available without charge upon request.

Although the intended primary application of this standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the standard to judge its suitability for their particular purpose.

Many tests required by CGSB standards are inherently hazardous. CGSB neither assumes nor accepts any responsibility for any injury or damage that may occur during or as the result of tests, wherever performed.

CGSB takes no position respecting the validity of any patent rights asserted with any item connected with this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights are entirely their own responsibility.

Further information on CGSB and its services and standards may be obtained from:

The Manager
Marketing and Sales Services
Canadian General Standards Board
Ottawa, Canada
K1A 1G6

The STANDARDS COUNCIL OF CANADA is the co-ordinating body of the National Standards System, a federation of independent, autonomous organizations working towards the further development and improvement of voluntary standardization in the national interest.

The principal objectives of the Council are to foster and promote voluntary standardization as a means of advancing the national economy, benefiting the health, safety and welfare of the public, assisting and protecting the consumer, facilitating domestic and international trade, and furthering international co-operation in the field of standards.

A National Standard of Canada is a standard which has been approved by the Standards Council of Canada and one which reflects a reasonable agreement among the views of a number of capable individuals whose collective interests provide, to the greatest practicable extent, a balance of representation of producers, users, consumers and others with relevant interests, as may be appropriate to the subject in hand. It normally is a standard that is capable of making a significant and timely contribution to the national interest.

Approval of a standard as a National Standard of Canada indicates that a standard conforms to the criteria and procedures established by the Standards Council of Canada. Approval does not refer to the technical content of the standard; this remains the continuing responsibility of the accredited standards-writing organization.

Those who have a need to apply standards are encouraged to use National Standards of Canada whenever practicable. These standards are subject to periodic review; therefore, users are cautioned to obtain the latest edition from the organization preparing the standard.

The responsibility for approving National Standards of Canada rests with the:

Standards Council of Canada
45 O'Connor Street
Suite 1200
Ottawa, Ontario
K1P 6N7

Withdrawn/Retire

How to order CGSB Publications:

by Telephone — (613) 941-8703 *or*
— 1-800-665-CGSB
(Canada only)

by Fax — (613) 941-8705

by Mail — CGSB Sales Centre
Ottawa, Canada
K1A 1G6

in Person — Suite 1402
222 Queen Street
Ottawa, Ontario

NATIONAL STANDARD OF CANADA

CAN/CGSB-3.0
No. 122.1-95

METHODS OF TESTING PETROLEUM AND ASSOCIATED PRODUCTS

CHLORIDES IN GLYCOL (QUANTITATIVE DETECTION)

Withdrawn/Retiree

This method supersedes issue of December 1987.

Prepared by the
Canadian General Standards Board CGSB

Approved by the
Standards Council of Canada

Published July 1995 by the
Canadian General Standards Board
Ottawa, Canada K1A 1G6

©Minister of Supply and Services Canada — 1995

No part of this publication may be reproduced in any form without the prior permission of the publisher.

CANADIAN GENERAL STANDARDS BOARD

COMMITTEE ON PETROLEUM TEST METHODS

(Membership at date of approval)

Lee, S.W.	*Chairperson*	Department of Energy, Mines and Resources
Boulanger, P.		Ultramar Canada Inc.
Coble, N.D.		UOP
Haggett, R.D.		Defence Research Establishment — Atlantic
Lau, A.		Imperial Oil Ltd.
Lawson, A.		ORTECH
MacMillan, E.D.		Sunoco Inc.
Martin, M.P.		Department of National Defence
Mault, W.		Department of Labour, Manitoba
Moon, G.		National Research Council of Canada
Pickard, A.L.		Petro-Canada
Rebus, B.		Alberta Research Council
Strigner, P.L.		Consultant
Tharby, R.D.		Tharby and Associates
Turle, R.		Department of the Environment
Walker, R.		Department of Consumer and Corporate Affairs
Walsh, V.		Newfoundland Processing Ltd.
Wolter, J.		Shell Canada Ltd.
Yazdani, R.		Department of Energy, Mines and Resources
Melski, T.	*Secretary*	Canadian General Standards Board

Withdrawn/Retirée

Acknowledgment is made for the translation of this National Standard of Canada by the Translation Bureau of the Department of the Secretary of State.

National Standard of Canada

CGSB Ottawa Canada K1A 1G6	METHODS OF TESTING PETROLEUM AND ASSOCIATED PRODUCTS	CAN/CGSB-3.0
	Chlorides in Glycol (Qualitative Detection)	No. 122.1-95

Supersedes Issue of
December 1987

Withdrawn/Retiree

1. SCOPE

1.1 This method describes the qualitative detection of chlorides in glycol-based deicing-defrosting fluids.

1.2 The testing and evaluation of a product against this method may require the use of materials and/or equipment that could be hazardous. This document does not purport to address all the safety aspects associated with its use. Anyone using this method has the responsibility to consult the appropriate authorities and to establish appropriate health and safety practices in conjunction with any existing applicable regulatory requirements prior to its use.

2. APPLICABLE PUBLICATION

2.1 The following publication is applicable to this method:

2.1.1 Canadian General Standards Board (CGSB)

CAN/CGSB-3.0 — Methods of Testing Petroleum and Associated Products:

No. 0 — Prologue to the Petroleum Test Methods and Table of Contents.

2.2 Reference to the above publication is to the latest issue, unless otherwise specified by the authority applying this method. The source of this publication is shown in the Notes section.

3. SUMMARY OF METHOD

3.1 After removing possible interferences, the sample is reacted with silver nitrate in an acidic medium, and the mixture is visually examined for the presence of a precipitate.

4. SIGNIFICANCE AND USE

4.1 The formation of a precipitate indicates the presence of chlorides. The method is intended for the detection of chlorides in glycol-based deicing-defrosting fluids and may be used for other glycol-based products that do not contain interfering additives.

5. REAGENTS AND MATERIALS

5.1 **Hydrogen Peroxide** — 30% by mass (see CAN/CGSB-3.0 No. 0).

5.2 **Nitric Acid** — Concentrated. (DANGER — Poison. Corrosive. Strong oxidizer. Contact with organic material may cause fire. May be fatal if swallowed. Liquid and vapour cause severe burns. Harmful if inhaled. May cause delayed lung injury. Spillage may cause fire and/or liberate dangerous gas. See CAN/CGSB-3.0 No. 0.)

5.3 **Alkacid Test Ribbon**.

5.4 **Silver Nitrate Solution** — 3% by mass.

5.5 **Nitric Acid Solution** — 1:1.

6. PROCEDURE

6.1 Place 10 mL of the sample in a 30 mL test tube. Add 10 mL of distilled water and mix. Add 10 drops of concentrated nitric acid, shake the mixture and filter.

6.2 Add 10 drops of 3% aqueous silver nitrate solution to the filtrate and examine the mixture visually. If difficulty is experienced in detecting small quantities of white precipitate in a highly-coloured solution, transfer the mixture to a centrifuge tube and separate it by centrifuging. In all cases disregard any slight turbidity that is not cleared by centrifuging at 10G for 10 min. The formation of precipitate indicates the presence of chlorides.

6.3 If the sample is known to contain additives that interfere with the above procedure (such as benzotriazole or tolyltriazole), the following procedure should be followed:

6.3.1 Weigh approximately 50 g of sample in a 250 mL beaker and add 25 mL of distilled water and 2 mL of 30% hydrogen peroxide.

6.3.2 Cover the beaker and bring it to a boil on a hot plate. Simmer for 10 min and then remove the beaker from the hot plate and cool it to room temperature.

6.3.3 Add a piece of Alkacid test ribbon and, while stirring, add 1:1 HNO_3 dropwise from a pipette until the test ribbon *just* turns red indicating a pH of 2 to 3. If the test ribbon is bleached, indicating the presence of hydrogen peroxide in the solution, repeat par. 6.3.2.

6.3.4 Proceed as in par. 6.2.

7. REPORT

7.1 Report the presence or absence of chlorides.

8. NOTES

8.1 The publication referred to in par. 2.1.1 may be obtained from the Canadian General Standards Board, Sales Centre, Ottawa, Canada K1A 1G6. Telephone (613) 941-8703 or 1-800-665-CGSB (Canada only). Fax (613) 941-8705.

Withdrawn/Retirée