

Australian Standard™

**Engine coolants Type A and Type B for
engine cooling systems**

This Australian Standard was prepared by Committee CH-029, Additives for Engine Cooling Systems. It was approved on behalf of the Council of Standards Australia on 21 June 2004.

It was published on 15 July 2004.

The following are represented on Committee CH-029:

AMDEL Limited
Australasian Corrosion Association
Australian Railway Association
Australian Aluminium Council
Australian Automobile Association
Australian Automotive Aftermarket Association
Australian Chamber of Commerce and Industry
Business New Zealand
Federal Chamber of Automotive Industries
Federation of Automotive Products Manufacturers
Institute of Automotive Mechanical Engineers
New Zealand Automobile Association
The Royal Australian Chemical Institute
Society of Automotive Engineers Australasia

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Web Shop at www.standards.com.au and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Global Standard*, has a full listing of revisions and amendments published each month.

Australian Standards™ and other products and services developed by Standards Australia are published and distributed under contract by SAI Global, which operates the Standards Web Shop.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.org.au, or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

Australian Standard™

Engine coolants Type A and Type B for engine cooling systems

Originated as AS 2108—1977.
Previous edition AS/NZS 2108.1:1997.
Revised and redesignated as AS 2108—2004.

COPYRIGHT

© Standards Australia International

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia International Ltd GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 6168 2

PREFACE

This Standard was prepared by the Australian members of Joint Standards Australia/Standards New Zealand Committee CH-029, Additives for Engine Cooling Systems to supersede AS/NZS 2108.1:1997, *Engine coolants Type A and Type B for engine cooling systems, Part 1: Passenger cars and light commercial vehicle*. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

The objective of this Standard is to ensure that coolants for passenger cars and light commercial vehicles are tested for minimum requirements for Type A engine coolant (antifreeze/antiboil coolant with corrosion inhibitor) and Type B engine coolant (corrosion inhibitor only), as well as, their pre-diluted form that can be added directly to the cooling system without further dilution.

This revision includes two new tables for testing pre-diluted coolants (Type A and Type B), and addresses other minor omissions and ambiguities in order to facilitate ease of use by the public and the automotive industry.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

CONTENTS

	<i>Page</i>
1 SCOPE.....	4
2 APPLICATION	4
3 REFERENCED DOCUMENTS.....	4
4 DEFINITIONS.....	5
5 GENERAL REQUIREMENTS.....	5
6 SPECIFIC REQUIREMENTS FOR ENGINE COOLANT TYPE A	6
7 SPECIFIC REQUIREMENTS FOR ENGINE COOLANT TYPE B.....	8
8 MARKING	11
APPENDIX A COOLANT HOSE IMMERSION TEST.....	13

STANDARDS AUSTRALIA

Australian Standard**Engine coolants Type A and Type B for engine cooling systems****1 SCOPE**

This Standard lists the specifications for formulated glycol coolant solutions and for corrosion inhibitors.

This Standard applies both to concentrates which require dilution before use, and to pre-diluted solutions which are formulated for direct use in passenger car and light commercial engine cooling systems. Provision is also made for informative labelling of containers.

NOTE: This Standard does not cover coolants for use in heavy duty cycle engine cooling systems.

2 APPLICATION

The Standard has application both to the primary fill and also to after care/service coolants.

3 REFERENCED DOCUMENTS

The latest issue of publication shall apply.

The following documents are referred to in this Standard:

ASTM

D92	Standard test method for flash and fire points by Cleveland open cup tester
D380	Standard test methods for rubber hose
D412	Standard test methods for vulcanized rubber and thermoplastic elastomers—Tension
D471	Standard test method for rubber property—Effect of liquids
D1119	Standard test method for percent ash content of engine coolants and antirusts
D1121	Standard test method for reserve alkalinity of engine coolants and antirusts
D1122	Standard test method for density or relative density of engine coolant concentrates and engine coolants by the hydrometer
D1177	Standard test method for freezing point of aqueous engine coolants
D1287	Standard test method for pH of engine coolants and antirusts
D1384	Standard test method for corrosion test for engine coolants in glassware
D1881	Standard test method for foaming tendencies of engine coolants in glassware
D2240	Standard test method for rubber property—Durometer hardness
D2570	Standard test method for simulated service corrosion testing of engine coolants
D2809	Standard test method for cavitation corrosion and erosion-corrosion characteristics of aluminium pumps with engine coolants
D3183	Standard test practice for rubber—Preparation of pieces for test purposes from products
D3634	Standard test method for trace chloride ion in engine coolants
D4340	Standard test method for corrosion of cast aluminium alloys in engine coolants under heat-rejecting conditions