

	<b>SURFACE VEHICLE RECOMMENDED PRACTICE</b>	<b>SAE</b> <b>J1657 APR2011</b>
		Issued            1993-06 Stabilized        2011-04
		Superseding J1657 FEB1999
Selection Criteria for Retrofit Refrigerants to Replace CFC-12 (R-12) in Mobile Air-Conditioning Systems		

#### RATIONALE

The technical report covers technology, products, or processes which are mature and not likely to change in the foreseeable future.

#### STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE Interior Climate Control Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2011 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

**TO PLACE A DOCUMENT ORDER:**    Tel:    877-606-7323 (inside USA and Canada)  
     Tel:    +1 724-776-4970 (outside USA)  
     Fax:    724-776-0790  
     Email: CustomerService@sae.org  
 SAE WEB ADDRESS:                        http://www.sae.org

**SAE values your input. To provide feedback  
 on this Technical Report, please visit  
[http://www.sae.org/technical/standards/J1657\\_201104](http://www.sae.org/technical/standards/J1657_201104)**

**Foreword**—Refrigerants and refrigerant mixtures that might contain CFCs, HCFCs, HFCs, and hydrocarbons are being considered for introduction into the automotive aftermarket as retrofit refrigerants to service some of the existing motor vehicles equipped with CFC-12 (R-12) mobile air-conditioning (A/C) systems. This document provides criteria for determining the acceptability of candidate retrofit refrigerants to replace CFC-12 (R-12) in mobile A/C systems originally designed to use CFC-12 (R-12).

1. **Scope**—The purpose of this SAE Recommended Practice is to provide criteria for determining the acceptability of candidate retrofit refrigerants to replace CFC-12 (R-12) in mobile A/C systems originally designed to use CFC-12 (R-12).

## 2. **References**

2.1 **Applicable Publications**—The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J639—Safety and Containment of Refrigerant for Mechanical Vapor Compression Systems Used for Mobile Air-Conditioning Systems

SAE J1627—Rating Criteria for Electronic Refrigerant Leak Detectors

SAE J1628—Technician Procedure for Using Electronic Refrigerant Leak Detector for Service of Mobile Air-Conditioning Systems

SAE J1658—Alternate Refrigerant Consistency Criteria for Use in Mobile Air-Conditioning Systems

SAE J1659—Vehicle Testing Requirements for Replacement Refrigerant for CFC-12 (R-12) Mobile Air-Conditioning Systems

SAE J1660—Fittings and Labels for Retrofit of CFC-12 (R-12) Mobile Air-Conditioning Systems to HFC-134a (R-134a)

SAE J1661—Procedure for Retrofitting CFC-12 (R-12) Mobile Air-Conditioning Systems to HFC-134a (R-134a)

SAE J1662—Material Compatibility With Alternate Refrigerants

SAE J1989—Recommended Service Procedure for the Containment of CFC-12 (R-12)

SAE J1990—Extraction and Recycle Equipment for Mobile Automotive Air-Conditioning Systems

SAE J1991—Standard of Purity for Use in Mobile Air-Conditioning Systems

SAE J2064—HFC-134a (R-134a) Refrigerant Automotive Air-Conditioning Hose