

NAVISTAR, INC.		
Material, Parts, and Process Specifications (MPAPS)		NUMBER: MPAPS B-41
		Former Designation: CEMS B-41
TITLE: Air Conditioner Refrigerant	CURRENT REV No.: 1802	DATE: Feb. 2018
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<i>This specification may involve hazardous materials, equipment, and procedures. This specification does not purport to address all of the safety issues associated with its use. The user is responsible to consult appropriate safety and health practices and to determine the applicability of regulatory limits prior to use.</i>		

1.0 APPLICATION

This specification applies to fluorocarbon refrigerant for initial filling or recharging of refrigerant systems

2.0 SCOPE

This specification covers the Company's essential property requirements for fluorocarbon refrigerant for initial filling or recharging of refrigerant systems and test methods to be used to verify compliance. These refrigerants will be: dichlorodifluoromethane, CFC-12 (R-12), and 1,1,1,2 - tetrafluoroethane, HFC-134a (R-134a), as defined by the American Society of Heating, Refrigerating, and Air Conditioning Engineers in ANSI/ASHRAE 34-1992.

Federal Legislation (CFR 40-82) has mandated that the manufacture of chlorofluorocarbon refrigerants (CFCs) in automotive air conditioning systems be halted. The use of the environmentally acceptable HFC-134a (R-134a) refrigerant was initiated in Navistar production facilities in January 1993. Further use of the CFC-12 (R-12) refrigerant is restricted to field service applications in product produced prior to January 1993. The use of all other ozone depleting chemicals in Navistar products is restricted.

2.1 Restricted Chemical Substances

Effective January 1, 2007, all product supplied to the requirements of this specification must comply with the requirements of the MPAP B-50 specification.

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4.0 REFERENCE DOCUMENTS

Unless otherwise specified, the latest issue of all referenced standards will apply. The following standards, specifications, and regulations are referenced in this specification.

ISO 9001/TS 16949 – Quality Management Systems-- Requirements
 CFR Title 29, Part 1910 – Occupational Health and Safety Standards
 NAVISTAR ISQ-001-QM – Integrated Supplier Quality Requirements
 NAVISTAR D-13 – Supplier Packing and Shipping Standard.
 NAVISTAR MPAPS B-50 – Restricted Chemical Substances
 CFR Title 40, Section 82 – Protection of Stratospheric Ozone
 ANSI/ASHRAE 34 – Designation and Classification of Refrigerants
 ANSI/AHRI Std. 700 – Specifications for Refrigerants

5.0 CLASSIFICATION OR DESIGNATION

Air conditioner refrigerants are classified on the basis of whether or not they are ozone depleting chemicals.

6.0 PROPERTY REQUIREMENTS

The material* purchased to this specification will conform to the following requirements:

PROPERTY	REFRIGERANT REQUIREMENTS		
	CFC-12 (R-12)	HFC-134a (R-134a)	Test Method **
Water Content, ppm by Weight, max	10	10	Per AHRI Std 700 Appx C
Equilibrium Boiling Range at one Atmosphere pressure, °C	0.4 (Including –29.8°C)	0.4 (Including –26.2°C)	Per AHRI Std 700 Appx C
High Boiling Impurities, % by Volume	0.01	0.01	Per AHRI Std 700 Appx C
Chloride ions	None Detected	None Detected	Per AHRI Std 700 Appx C
Color	Colorless	Colorless	-
Purity (including isomer content)	99.9	99.9	GCA

* The CFC (R-12) and HFC-134a (R-134a) refrigerants are not compatible. Refrigerants of different boiling points and chemical compounds must not be mixed with or substituted for one another

** See Test Methods

7.0 QUALITY

Refrigerants supplied will be certified as meeting the appropriate requirements of ANSI/AHRI 700. Vendors will qualify their products, containers, and packages for use in all States in addition to meeting Interstate Commerce Commission regulations.

8.0 TEST METHODS

8.1 Test methods are per current revision of AHRI Standard 700 Appendix C. This Standard and its appendices are available from the Air-Conditioning, Heating and Refrigeration Institute (AHRI), 211 Wilson Blvd Suite 500 Arlington, VA 22201, and at www.ahrinet.org

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