

ASHRAE Technical FAQ

ID 46

Question What [research](#) is ASHRAE conducting regarding new, natural, or alternative refrigerants?

New refrigerants are not typically developed through ASHRAE research. Manufacturers may submit new refrigerant formulations to SSPC 34, Designation and Safety Classification of Refrigerants, to obtain an ASHRAE number designation based on criteria in the standard. In the United States, most approved refrigerants are non-flammable blends with HFCs as the major components.

Each year ASHRAE devotes the October issue of the [ASHRAE Journal](#) to that year's Research Report. The following active projects regarding air filtration are listed in the October 2016 issue:

1327-RP Flow Regime and Pressure Drop Determination for Two-Phase Ammonia Upward Flow in Various Riser Sizes

1507-RP Binary Refrigerant Flame Boundary Concentrations

1569-RP CFD Study of Hydraulic Shock in Two-Phase Anhydrous Ammonia

Answer 1634-RP Guide for Sustainable Refrigerated Facilities and Refrigeration Systems

1717-RP Improve Accuracy and Reproducibility of ASTM-E681 Test Methods for Flammability Limit Measurement of 2L Flammable Refrigerants

1721-RP Oil Return and Retention in Unitary Split System Gas Lines with HFC and HFO Refrigerants

1774-RP Effects of System Chemicals on Breakdown of Lubricants and Lower GWP Refrigerants

1806-RP Flammable Refrigerants Post-Ignition Simulation and Risk Assessment

1807-RP Guidelines for Flammable Refrigerant Handling, Transporting, Storing and Equipment Servicing and Installation

1808-RP Servicing and Installing Equipment using Flammable

Refrigerants: Assessment of Field-made Mechanical Joint

Co-RP4 Investigation of Ignition Temperatures (Hot Surface and Auto Ignition) for 2L Refrigerants

Final reports to completed ASHRAE research projects related to air filtration, and all other topics, are available (for free to ASHRAE members) at the [Research](#) page of www.ashrae.org.

ASHRAE Pubs The October issue of the [ASHRAE Journal](#) each year summarizes ASHRAE's current research efforts.

Topic References Air filtration, research

	Cognizant ASHRAE Committees	Refer to Organization
1	TC 3.1	
2	RAC	
3		
4		
5		