

# DuPont™ Opteon™ yf

## FOR AUTOMOTIVE AIR-CONDITIONING

### PRODUCT INFORMATION BULLETIN

DuPont™ Opteon™ yf is a non-ozone depleting, low global warming potential (GWP) refrigerant that was developed to meet the EU Mobile Air Conditioning (MAC) Directive for phaseout of high GWP refrigerants for automotive air-conditioning. With a GWP of 4, DuPont™ Opteon™ yf readily meets the EU MAC Directive. DuPont™ Opteon™ yf exhibits similar operating conditions compared to HFC-134a and has the potential to replace HFC-134a in all applications where mild flammability is accepted.

DuPont™ Opteon™ yf is mildly flammable, (A2L), but should require only modest design changes to be used in direct expansion mobile air-conditioning systems.

**ASHRAE #:** R-1234yf or HFO-1234yf

**ASHRAE and ISO817 Safety Rating:** A2L

#### Applications

- New mobile air-conditioning (MAC) applications only

#### Benefits

- Non-ozone depleting hydrofluoro-olefin (HFO)
  - Not subject to phaseout under Montreal Protocol
- Low GWP refrigerant
- Toxicity comparable to HFC-134a (A rating)
- Good environmental performance, lowest LCCP of all next generation alternatives
- Similar operating conditions compared to HFC-134a (similar Pressure- Temperature (P-T) curve)
- Thermally stable under extreme use conditions encountered in a MAC system
- Cooling capacity equivalent to HFC-134a
- Energy efficiency better than or equivalent to HFC-134a

#### Lubricant Recommendation

- PAGs that have been formulated specifically for use with HFO-1234yf
- Compatible with POE lubricants



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## Additional Information

- DuPont™ Opteon™ yf cannot be used for retrofit applications.
- DuPont™ Opteon™ yf is mildly flammable compared to HFC-134a and may require additional safety measures during implementation, use and service.
- DuPont™ Opteon™ yf will require use of recovery machines, leak detectors and identifiers specifically designed for HFO-1234yf.
  - Recovery and Recovery/recharge/recycle equipment should meet J2843, J2851 and/or VDA requirements
  - Leak detectors should meet J2913 and/or VDA requirements
  - Refrigerant identifiers should meet J2927 or J2912 and/or VDA requirements
- DuPont™ Opteon™ yf will require use of evaporators specifically designed for HFO-1234yf
  - Replacement evaporators should meet ISO Std 13043 and/or SAE J2842

For more information on the DuPont™ Opteon™ family of refrigerants, or other DuPont Refrigerants products, visit [refrigerants.dupont.com](http://refrigerants.dupont.com).

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