

TERNARY MIXTURES AS LONG TERM ALTERNATIVE REFRIGERANTS

FOR R12 AND R134A – A REVIEW

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ABSTRACT

As per Montreal protocol, R134a has been suggested as an alternate refrigerant to R12. R134a is not miscible in mineral oil. Alternatively synthetic oils are recommended. As R134a can cause high global warming, its usage needs to be controlled as per the Kyoto protocol. On the other hand Hydro Carbon refrigerants do have flammability issues and safety standards that limit the usage of pure HC refrigerants in domestic appliances. Because of the above factors, safe conversion of existing R134a refrigerators with environmentally friendly refrigerants is of utmost importance in Refrigeration and Air-conditioning sector. This paper presents a review of present status of alternative refrigerants.

KEYWORDS: Refrigerants, Global Warming, Ternary Mixture, Propane, Isobutane, R134a