

# DISTRIBUTOR

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Line No.: AIR CONDITIONING LINE 15

Distribution: CO, [REDACTED] ND, MM, MMD

## AIR CONDITIONING [REDACTED] ISSUES

TO: ALL WAREHOUSE DISTRIBUTORS

Subject: A/C Service Issues

Models  
Affected: All Passenger Car and Light Truck Models with R-12 or [REDACTED] Air Conditioning Systems

As you know, the production of R-12 refrigerant ended December 31, 1995. Although new material will not be [REDACTED] there is a significant reserve of R-12 and along with proper [REDACTED] recycling procedures it will continue to be available to meet consumers needs well into the future.

[REDACTED] can and should continue to be used to service vehicles built with R-12 as long as it is available. If R-12 is no longer available or [REDACTED] a system retrofit utilizing R-134a is recommended. R-134a is the only approved substitute refrigerant which GM recommends. All new vehicle manufacturers have taken a similar position in order to protect the service industry and the consumer from the high cost of servicing multiple refrigerants and the threat of refrigerant contamination. Use of other than R-12 and R-134a refrigerants will void General Motors [REDACTED]

GM currently offers a simple, low cost R-12 to R-134a retrofit on many of its late models, front wheel drive passenger cars. Installers should discuss this capability with owners of vehicles covered by General Motors retrofit bulletin [REDACTED] or [REDACTED] brochure "Guidelines For Retrofitting GM Vehicles To R-134a" when an A/C refrigerant system repair is required. Installers should become acquainted with the proper procedures for performing a retrofit.

Remember R-12 and R-134a refrigerant are not interchangeable! They cannot be mixed together. In fact, regardless of any manufacturers claims no proposed [REDACTED] substitutes can be added to, topped off or mixed with R-12. Under provisions covering the service of refrigerants, mixing dissimilar refrigerant products during service is prohibited. All substitute refrigerant used in service must be properly labeled and installed using unique service fittings. These unique fittings mandate additional dedicated service equipment. Recent industry sources have reported that some automotive [REDACTED] substitutes could cause serious vehicle damage and pose a harmful threat to the technician.

It should be noted that although the EPA has listed alternative refrigerants under the Significant New Alternative Policy (SNAP) program, it does not mean these refrigerants were [REDACTED] for performance, operation or durability in mobile air conditioning systems.

## R- 12 Service Recommendations:

1. Service [REDACTED] vehicles with good quality new or recycled [REDACTED] as long as available.
2. Carefully test recovered [REDACTED] using some type of refrigerant identifier. (On recovery equipment not protected by a refrigerant identifier, regularly test the recovery cylinder prior to recharging a [REDACTED])
3. Discuss retrofit option with owners of vehicles covered by General Motors Retrofit bulletin [REDACTED] or ACDelco brochure "Guidelines For Retrofitting GM Vehicles to [REDACTED] (MS-3644).
4. Become [REDACTED] with retrofit procedures and exercise care in the handling dissimilar refrigerants to prevent contamination.
5. The use of refrigerants and oils other than [REDACTED] and R-1 34A and Mineral and Pag oils as recommended by the vehicle manufacturer will void any ACDelco Parts warranty on A/C components.

As [REDACTED] prices rise, retrofitting GM and other [REDACTED] vehicles to R-1 34A will become more desirable. It is very important that as retrofitting becomes a common practice that all [REDACTED] is removed from the system prior to the retrofit. Failure to do so could contaminate the R-134A equipment and recovery tanks when subsequent service is [REDACTED]

If you [REDACTED] any questions, please contact your ACDelco sales representative.

D. L. Thompson  
Marketing Manager  
Heating ■ Cooling

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**Motor Vehicle Air Conditioning Substitutes for CFC-12**  
**Reviewed Under EPA's SNAP [REDACTED] as of June [REDACTED]**

[REDACTED]	[REDACTED]	Date	Manufacturer	Components /Reason Unacceptable							
				HCFC-22	HCFC- 124	[REDACTED]	HFC- 134a	[REDACTED] (R-600)	[REDACTED]	[REDACTED]	
HFC-134a	ASU	[REDACTED]	[REDACTED]								
[REDACTED] FR-12	ASU	[REDACTED]	Intefmagnetics General 800-555-1442		39		59	2			
Free [REDACTED] RB-276 (4)	ASU	[REDACTED]	[REDACTED]			19	79				
[REDACTED]	ASU	[REDACTED]	Ikon Corp.								
[REDACTED]	ASU	[REDACTED]	People's Welding 800-382-9006	55		41			4		
[REDACTED] Chill-It (5)	ASU	[REDACTED]	People's Welding 800-382-9006	51	28.5	16.5			4		
Hot Shot/ K a r [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	50	39	9.5			1.5		
GHG-HP (5)	ASU	[REDACTED]	People's Welding 800-382-9006	65		31			4		
FREEZE 12	ASU	[REDACTED]	Technical Chemical 800-527-0885			20	80				
[REDACTED]	ASU	[REDACTED]	People's Welding 800-382-9006	41		15			4	40	

oz-12	UNA	[REDACTED]	[REDACTED]	Flammable blend of hydrocarbons; [REDACTED] data to [REDACTED] safety
R-176	UNA	[REDACTED]	Arctic Chill	Contains [REDACTED] 2, which is [REDACTED] in a [REDACTED]
HC-12a	UNA	[REDACTED]	[REDACTED] Technology	Flammable blend of hydrocarbons; insufficient data to demonstrate safety
Duracool [REDACTED]	[REDACTED]	[REDACTED]	Duracool Limited	This [REDACTED] is identical to [REDACTED]
R-405A	UNA	[REDACTED]	Greencool	Perfluorocarbon component; [REDACTED] high global warming [REDACTED] and lifetime

[REDACTED] (made by DuPont), R-401B (DuPont), R-409A (Elf Atochem), Care 30 (Calor Gas), [REDACTED] MT-3 [REDACTED] and ES-12R (Intervest) have not been submitted for review in motor vehicle air conditioning, and it is therefore [REDACTED] to use these refrigerants in such systems.

See text for details on legality of use according to status.

ASU = acceptable subject to fittings, labeling, no drop-in, and compressor shutoff switch USC conditions

UNA = unacceptable; illegal for use as a CFC-12 substitute in motor [REDACTED] air [REDACTED]

Although some blends contain hydrocarbons, all blends that are ASU are [REDACTED] as [REDACTED]

[REDACTED] contains 2% of a lubricant.

HCFC-22 content results in an additional use condition; must be used with barrier hoses.

From the [REDACTED] Legal Status of HC-[REDACTED] Duracool 12a and OZ-[REDACTED]

Ozone Protection Hotline [REDACTED] (800) [REDACTED] direct dial (301) 614-3396

Detailed Questions About [REDACTED] and Other Flammable Refrigerants

1. What are [REDACTED] and [REDACTED]

[REDACTED] and [REDACTED] brand hydrocarbon [REDACTED] blends are flammable [REDACTED]. Their primary components are hydrocarbons, which are flammable substances like propane and butane. [REDACTED] and [REDACTED] are registered trademarks of OZ Technology, Inc. [REDACTED] has been marketed since 1994. [REDACTED] was a similar blend marketed until the introduction of HC-[REDACTED]. Both products have been reviewed by EPA under the Significant New Alternatives Policy (SNAP) program. More [REDACTED] about the SNAP program is available [REDACTED] the hotline listed at the top of this page.

[REDACTED] is Duracool [REDACTED]

Duracool Ltd., a Canadian company, licenses the [REDACTED] formula from OZ Technology and sells it under the name Duracool [REDACTED]. Duracool [REDACTED] and HC-[REDACTED] have exactly the same composition; since SNAP determinations apply to a given composition, the legal status of Duracool [REDACTED] is identical to that of [REDACTED]. Therefore, all discussion below related to [REDACTED] also applies to Duracool 12a.

3 [REDACTED] is the legal status of HC-[REDACTED] and OZ-[REDACTED]

Since July 13, 1995, it has been illegal to replace CFC-12 with [REDACTED] in any end-use other than industrial process [REDACTED]. This includes motor vehicle air conditioners. The rule was published on June 13, 1995 and [REDACTED] was listed as Hydrocarbon Blend B. The same prohibition for [REDACTED] took effect on April 18, 1994. The rule was published on March 18, 1994 and [REDACTED] was listed as Hydrocarbon Blend A. EPA is concerned about potential risks posed by the flammability of these refrigerants.

[REDACTED] [REDACTED] be used to replace CFC-12, commonly referred to as "Freon@," in cars?

No. It is illegal to use [REDACTED] as a substitute for CFC-12 in automobile or truck air conditioning under any circumstances. The manufacturer, OZ Technology, has [REDACTED] adequately responded to EPA's concerns about the safety of using a flammable [REDACTED] in a system not designed for it.

[REDACTED] is it legal to use [REDACTED] as a CFC-12 substitute in industrial process [REDACTED] but not elsewhere?




The industrial process [REDACTED] end-use does not include any air conditioning system, so the direct risk to human health is reduced. Access to areas near these systems is restricted. In addition, other regulations protect the safety of industrial workers. Finally, several large petrochemical companies have long experience using hydrocarbon refrigerants, and EPA believes they may continue to do safely.

Flammability risk depends a great deal on the type of system. Therefore, despite the acceptability of hydrocarbon [REDACTED] (like [REDACTED]) in this end-use, it remains illegal to replace CFC-12 with hydrocarbon [REDACTED] in other types of [REDACTED] and air conditioning systems.

sale of either  or HC- legal?

Sale is not regulated under EPA's SNAP program. However, statutes and regulations issued by other federal, state, or local agencies may control the sale of these products, including illegal advertising.

  be vented?

No. Since November 15, 1995, the Clean Air Act has prohibited the venting of any refrigerant during the service, maintenance, repair, or disposal of air conditioning and  systems. When working on a system containing  the technician must recover the 

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(to this post: Post your response your response

The Subject: **Nightmares on the horizon?**

At on Tim Matthews wrote:

Well, on my way home last nite, I stopped by a buddy's place. He owns a small local used car lot, and in the course of my visit, I happened to spot a couple cases of in his backroom. I proceeded to question him at great length about the stuff, and will relay some of his comments here.

"Yeah, this is the new stuff. The EPA loves it and is recommending it highly. Now, I know you guys don't like it because you are all making so much changing over systems and gouging people on freon. But everybody is using it, the new car dealers and all. Look, it is completely environmentally friendly, and totally safe. They must have sold a few hundred cases at the auction. All we have to do is have all the old stuff sucked out, and when we bring the car back here, we just juice it up. See, the valve and hose screws right onto the top of the can, like so" as he demonstrates, "and then ya just screw the other end to the service Here, I have the paper on it here somewhere" he says, rummaging through the contents of his desk. "Well, I can't find it right now, but this stuff is the best. Even colder than freon. I've gone through a few cases already this summer. Here, you try some of it and let me know what you think"

I proceeded to inform him that what he was doing was totally illegal, and he should desist immediately. And if he ever sent a car to my shop with this stuff in it, he'd better be kind enough to tell me But I am very concerned that he says "It's what all the car dealers are using If you are in NC, SC, or VA, LOOKOUT. No retrofittings, no signs, only lost time and money await you if you don't have and use an identifier. Think I will go in business building reclaimers on the side, and universal hookup kits, so we can start sucking the junk out at a BIG profit.

I will also post this to the AC forum. Please be [REDACTED]  
this stuff is EXTREMELY FLAMMABLE. Says so right on the  
can. [REDACTED] it for any who run across the stuff. Just  
wanted to let [REDACTED] know.

Tim Matthews

*Technician/Manager*

**Automotion**

[REDACTED] North Carolina, USA

[REDACTED] (to this post: [REDACTED])