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TECHNI

HODS

1. BACKGROUND: ArmaLite officials conducting small arms maintenance training in an allied nation were advised that Military and Police officers often use common cooking oil as a small arms cleaner and lubricant. A 4 ounce bottle of cleaning material common in Europe or America could cost as much as a weeks income for a laborer in much of the rest of the world.

ArmaLite is concerned that improper cleaners and lubricants could threaten the performance of its rifles in critical moments. ArmaLite's staff has therefore conducted a preliminary study to identify inexpensive, effective small arms maintenance materials that are available worldwide.

2. FINDINGS: ArmaLite has consulted with Small Arms experts at Rock Island Arsenal and elsewhere, and has conducted preliminary evaluations of the materials they recommended:

Automatic Transmission Fluid (ATF) as a cleaner and light lubricant. ATF performs admirably as a carbon remover, and protects steel surfaces excellently ("Have you ever seen a transmission that's rusty inside?").

Twenty weight engine oil serves in an environment that is far more strenuous than normally found in small arms so is normally quite successful. The Army authorities recommend synthetic oils such as Mobil 1. (In fact, one noted authority has used Mobil 1 as his personal firearm lubricant for over two decades.

No safe copper remover formulation has yet been identified, but government tests reveal that copper removal provides no advantage in a standard military arm. It may serve a useful purpose in cleaning the bore of a rifle meant for extremely precise fire, such as a sniper rifle.

3. RECOMMENDATIONS: Employ ATF as a small arms cleaning agent, and follow with 20 weight synthetic motor oil as a lubricant. Until a commonly available alternate copper solvent.