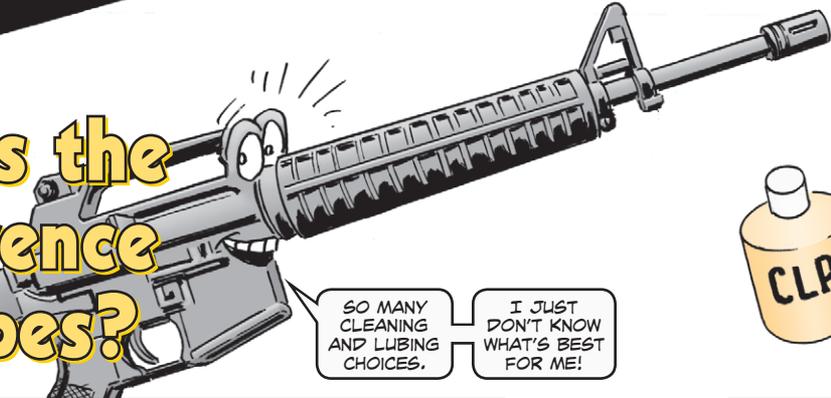


# What's the Difference in Lubes?



Dear Half-Mast,  
The -10 TMs for our small arms list a number of lubes and/or cleaners for our weapons, but many of us aren't exactly sure what the differences are among them. Can you help?

SGT J.D.

Dear Sergeant J.D.,

Sure can. Small arms lubricants differ in viscosity (how easily they flow), chemical composition and heat resistance. These characteristics dictate which lubricant to use according to the environmental conditions. Generally, your -10 TM is the best guide for lubricants, but here are some general guidelines to help you take care of your weapons:

**RBC** (rifle bore cleaner) is not a lubricant, it's strictly for cleaning out carbon and powder from the chamber and bore. Save it for really tough cleaning jobs. Remember when you're finished using it you still need to lube your weapon.

**CLP** (cleaner, lubricant, preservative) is usually the best choice for taking care of your weapon since it cleans, lubes, and preserves in one step.



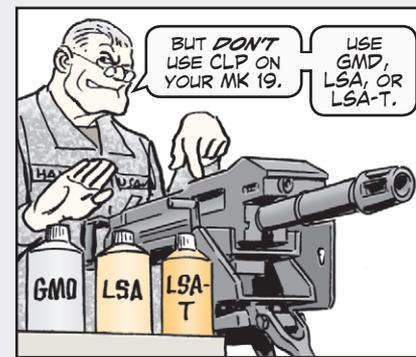
**LSA** (lubricant, semi-fluid, automatic weapons) and **LSA-T** (lubricant, semi-fluid, automatic weapons with Teflon) are strictly lubricants. So before using them, you first have to clean your weapon with dry cleaning solvent, MIL-PRF-680 Type II. Always de-grease thoroughly when changing lubes.

**CLP** and **LSA** can be used on most weapons as long as the temperature is -10°F or higher. When the temperature drops below 10°F, you can use **LAW** (lubricating oil, arctic, weapons). If it's below -10°F, use only **LAW** on most weapons.

There are exceptions, though. For the **M249 machine gun** and the **M3 recoilless rifle**, use only **CLP** regardless of the temperature.

On the **M231 firing port weapon**, don't use **CLP**. Use only **LSA** in normal conditions and **LAW** in extreme cold.

For the **MK 19**, never use **CLP**—it's not strong enough. Use **GMD** (grease, molybdenum disulfide) if you can get it. If you can't, use **LSA** or **LSA-T**. If the temperature drops to 0°F or below, it's OK to use **LAW**.



When you're lubing, remember a light lube means a film barely visible to the eye. A heavy lube means a film thick enough to spread with your finger.

If you need the NSNs for these lubricants and cleaners, see your -10 TM or Page 23 in PS 671 (Oct 08) at <https://www.logsa.army.mil/psmag/archives/PS2008/671/671-23.pdf>

Half-Mast