

#### SGO-MP SpartaMax Gun Oil- MILITARY POLICE Bio Cleaner-Lube ( CLP ) Product Information:

SGO-MP Proprietary Cleaner-Lube-Protection product. Formulated with advanced Bio Base aerospace / synthetic chemistry and metal surface treatment. Universal for gun barrel bore & mechanical parts with solid film lubricant provides; high temperature durability, cold /sub-zero operation temperatures, reduced friction & long lasting features. Stay-ability upon surfaces with cleaner weapon performance (greatly reducing carbon, nitrite, residue particles & micro-dirt attraction). Increases overall component life cycles. Hot weather durability. USDA Bio Preferred Bio-Base Registered Catalog Product as required by the DOD (Department of Defense), NASA & GSA.

## Commercial Applications & Use:

- SGO-MP (CLP) is Universal for multiple related Pistol, Gun & Rifle Applications (small medium & large) including small Hand gun (pistol), Shot Guns, Rifles (regular, semi and fully automatic).
- SGO-MP (CLP) application & use during regular Cleaning & Lube of gun (barrel bore & parts).
- Bio Cleanse & Lube Protection of Gun Barrel Bore (increases durability & service life cycles).
- Bio Cleanse & Lube Protection of Internal & External Mechanical Parts, Bolt, Slide & Firing Pin Areas.
- Special Dri-Plate coating with time embeds into barrel bore to reduce Carbon & Nitrite formation. SGO-MP Improved Cleaner Fire Combustion Efficiency blows out muzzle more Carbon etc.
- DESIGNED FOR PROFESSIONAL USE POLICE, SECURITY & MILITARY (MIL-PRF-63460E).

## Features & Benefits:

- SGO-MP provides GUN POWDER MANAGEMENT. Designed to be left wet upon internal working
  and slide component surfaces. When Powder and contaminates come in contact with SGO-MP,
  special bio chemistry dissipates & holds carbon in manageable suspension later wipes away.
- SGO-MP is compatible w/all metals, composites, surfaces & non-hazardous (flash point above 450°F).
- Internal & external mechanical lubricant for extreme duty, hi-performance & long lasting requirements Aerospace synthetic (thin, light, durable for high & cold temp. stable) lubricant w/ surface stay-ability.
- Excellent anti-wear capabilities with reduced friction; provides improved projectile consistency.
- Barrel bore performance repeatability provide increased target penetration, distance & accuracy.
- Gun barrel bore operates cooler w/ longer service life cycles (historic performance time doubles).
- Provides longer performance durations & maintenance cycles with reduced surface degradation.
- Metal Surface Static Condition is greatly reduced which slows micro particle / surface embedding.
- Resists static carbon & micro dirt particle attraction into or upon barrel & mechanical components.
- Gun Powder Nitrite particles which normally imbeds into barrel and mechanical component surfaces are greatly reduced. During maintenance easily wipes away with bio-solvent cleansing action.
- Anti- Oxidation (rust) protection upon metal surfaces 30 90 days (depending on conditions).
- Special polarization / attraction absorbs the aerospace nano-technology directly into the micron metal pours of component surfaces (barrel bore, firing pin, bolt, etc. no matter the surface).
- USDA Bio-base, Bio-degradable and Bio-safe for personnel's physical application and use.

### Typical Properties:

- Pour Point: -74°F (sub-zero cold operations) Flash Point: 450°F+ (extreme heat)
- Due to continual product research & development, the information contained herein is subject to change without notification. Typical Properties may vary slightly. MSDS's are available upon request.

### Packaging:

• Commercial & Civilian use - Heavy Duty Bottle 1 oz. Sprayer (or service D-Cap) and 4oz Bio Gunsmith / Maintenance Product. Military specification containers are available as required.

SpartaMax Products, Spartaclean Bio-Technologies, Inc. (815) 637.1574 www.spartamax.net





# SGO-MP SpartaMax Gun Oil -MILITARY POLICE is designed to fulfill the following:

PERFORMANCE SPECIFICATION to MIL-PRF-63460E LUBRICANT, CLEANER AND PRESERVATIVE FOR WEAPONS AND WEAPONS SYSTEMS

Identified by Military Symbol CLP and North Atlantic Treaty Organization (NATO) Code Number S-758.

<u>Intended use</u>. SGO-MP (CLP) Product is for use in cleaning, lubricating & short-term (preservation of small & large caliber military weapons, operating in temp range of -51 to + 71 °C (-60 to +160 °F). Highly penetrating, mobile liquid and is intended for field application to satisfy the complete need of cleaning, lubricating, and short term preservation of military weapons. Facilitates effective removal of firing residues, gums & contaminants from weapon components, while providing lubrication & short term preservation for reliable operation.

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### 1. Product Requirements.

- a) Graphite. SGO-MP (CLP) contains no Graphite, Moly, Teflon or other powdered metals.
- b) Ozone depleting substances (ODSs). SGO-MP (CLP) contains no ODSs.
- c) <u>Toxicity and hazardous materials</u>. SGO-MP (CLP) has no adverse effect on the health of personnel when used for its intended purpose. DOD & GSA "GREEN" Compliant with Bio Base Chemistry Materials (7/2012).
- **d)** <u>Color and appearance</u>. SGO-MP (CLP) is uniform in color and appearance when examined in reflected light, and has no visible residue after shaking.
- e) Physical properties. SGO-MP (CLP) conforms to required property performance specifications (below).
- **2.** Operating Requirements for Firing residue removal. SGC-MP (CLP) provides cleaning capability to remove a minimum average of 95 % of the residue generated from the ignition of WC 844 propellant.

## 3. Interface Requirements.

- **a)** <u>Corrosion production.</u> SGO-MP (CLP), does not produce visual & acceptable evidence of corrosion such as pitting, etching, or dark discoloration, nor shall it cause a weight change in the metals, when applied to Zinc, Aluminum, Copper, Magnesium, Brass, Steel or Cadmium.
- **b).** <u>Interference with chemical agent detector paper</u>. SGO-MP (CLP) applied to and allowed to soak into chemical agent detector paper shall cause no discoloration, in the soaked portion of the paper.

# Physical properties of MIL 63460E

Properties	Values
Flash Point, min	120 °C (249 °F) +
Pour Point, max	-59 °C (-74 °F)
Viscosity, Kinematic (w/ solvent) @ +40 °C (104 °F), min	14.0 cSt
Viscosity, Kinematic (w/ solvent evaporated) @ -40 °C (-40 °F), max	5000 cSt
Wear Preventive Characteristics, avg., Scar Diameter, maz	0.8 mm
Load Carrying Capacity, Jaw Load, min	500 lbs

#### 3. Environmental Requirements.

- a) <u>Humidity resistance</u>. SGO-MP (CLP), after 900 hours exposure in a humidity cabinet shall have little to no corrosion upon metal surface.
- **b)** <u>Salt-spray resistance</u>. SGO-MP (CLP), when applied, shall protect the metal surfaces after 100 hours exposure to a spray of 5 % salt solution.
- c) <u>Water displacement and water stability</u>. SGO-MP (CLP), shall displace water so that there is no evidence of rust spots, staining or pitting due to corrosion after storage in the static humidity chamber for 1 hour.



- <u>4. Weapon Performance Requirements</u>. SGO-MP (CLP), provide cleaning, lubricating and preservative characteristics to support operating requirements of M-4 / AR15 or M249 5.56MM, when exposed to the following conditions:
- **a)** <u>Cold temperature</u>. SGO-MP (CLP), applied to an M-4 / AR15 or M249 when exposed to severe cold for 18 hours shall prevent any Class II or III stoppages, shall allow not more than two Class I stoppages in 200 rounds ( M249 testing at 650 rpm as military specified).
- **b)** <u>Dust environments</u>. SGO-MP (CLP), applied to an M-4 / AR15 or M249 that is then exposed to very fine blowing dust for 50 minutes shall prevent any Class II or III stoppages, shall allow not more than five Class I stoppages in 500 rounds (M249 testing at 650 rpm as military specified).
- c) <u>Salt-spray environments</u>. SGO-MP (CLP), applied to an M-4 / AR15 or M249 that is then exposed to a salt-spray environment for 96 hours shall prevent any Class II or III stoppages, shall allow not more than two Class I stoppages in 200 rounds ( M249 testing at 650 rpm as military specified).

## Weapon Stoppage Definitions.

- a) <u>Class I weapon stoppage</u>. A failure that is immediately clearable (within 10 seconds or less) by the operator following prescribed immediate action procedures.
- b) <u>Class II weapon stoppage</u>. A failure that is clearable by the operator (requiring more than 10 seconds but not more than 10 minutes) using only the equipment and tools issued with the weapon.
- c) <u>Class III weapon stoppage.</u> A failure of a severe nature that; (1) is operator correctable but requires more than 10 minutes, (2) operator cannot correct and requires assistance (no time limit),
- (3) requires higher level of maintenance, or authorized operator correction cannot be accomplished because of unavailability of necessary tools, equipment or parts.

NOTE: For complete information regarding the details of test procedures etc. Please consult the entire performance specification document regarding MIL-PRF-63460E w/AMMENDMENTS-3 10 May 2011.