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Product Data Sheet

MTS

Manual Transmission Supplement
Molybdenum Disulfide suspended in gear oil

Performance

Molyslip MTS manual transmission supplement with a colloidal suspension of 0.5 micron particles of molybdenum disulfide has been engineered and produced to provide:

- Reduced friction between moving metal-to-metal surfaces
- Reduction of lubrication starvation
- Reduced wear
- Reduced oil temperature
- Protection from corrosion
- Increased reliability and reduced maintenance, overhauls and replacement costs

Independent tests show an average reduction in wear rate of more than 25%. This means increased efficiency and consequent reduction in operating costs.

The Action of Molyslip MTS

Molyslip MTS is a colloidal suspension of molybdenum disulfide, with extreme pressure and anti-foam additives, in a high-quality refined gear oil.

The structure of a molecule of molybdenum disulfide (MoS_2) can be compared to a sandwich— sulphur for the covering and molybdenum for the filling. Sulphur atoms have a strong affinity for metal, and the molecules of MoS_2 become bonded onto the working metal surfaces. Because the sulphur to sulpher bond is weak, the minute particles of MoS_2 glide over each other freely, giving an extremely low coefficient of friction.

Modern Lubricating Oils

The task of lubricating oil is to reduce friction between bearing metal surfaces, and to dissipate the heat generated by friction. Modern lubricating oils perform their tasks efficiently, but it is impossible for the lubricating oil film to be present at all times. Under conditions of extreme heat and pressure, the film can break down, and there can be a delay before oil is circulated to all components.

Constant Lubrication Is Vital

Molyslip MTS creates a film that will withstand bearing pressure in excess of 200,000 pounds per square inch. The MoS_2 film formed cannot drain off bearing surfaces, and is unaffected by extremes of temperature. Molyslip MTS blends well with all types of oils, including mineral, synthetic, semi-synthetic and transmission fluids.

Be certain not to exceed the recommended ratio of 5% - 10% especially when adding to automatic transmission fluid in a manual transmission.

Applications

Add in the ratio of 5% - 10% of fluid capacity to:

- Mechanical gear boxes, manual steering boxes and differentials in all road vehicles.
- Mechanical gear boxes and final drives of earth moving equipment, machine tools, lifting equipment and reduction gear boxes.
- Eminently valuable in worm, bevel and helical gear reduction units due to the high sliding pressures normally encountered.
- In marine and industrial turbine transmission drives and main turbine bearings, including the lower end of marine stern drives.
- On ships for closed deck equipment, gears and mechanisms, as well as steering gears and propeller shaft bearings.

Molyslip MTS should be added to gear and transmission oils in a minimum proportion of 5% (50 ml per litre of oil capacity) at every oil change.

DO NOT use in automatic transmissions or limited-slip differentials.

DO NOT use in wet-clutch systems (where the clutch is immersed in oil), often found in motorcycles and ATV's. These systems depend on friction to generate motion, and the presence of Molyslip MTS will reduce friction sufficiently to cause the wet clutch to slip. ***INSTEAD*** USE Molyslip Automatic Transmission Supplement in these applications.

Specifications

Specific gravity at 10°C (50º F)	0.920
Closed flashpoint	260°C (500º F)
Redwood Viscosity at 60°C (140º F)	449 seconds
Redwood Viscosity at 93°C (200º F)	67 seconds
Pour point (cold test)	21°C (-5°F)
Average particle size	0.5 micron (average)

Packaging

Molyslip MTS Manual Transmission Supplement is available in:

Product No.	Packaging	Case Size
3422	225 mL (7.6 US fl. oz.) boxed tube	Case of 12
3425	1 L (1 US qt.) bottle	Case of 12
3426	4 L (1 US gal.) jug	Case of 4
3427	23 L (6 US gal.) pail	
3429	205 L (54 US gal.) drums	

(See Material Safety Data Sheet for proper first aid instructions.)