



PRODUCT DESCRIPTION

M-529 is an oil-based package of corrosion inhibitors for lubricating oils. M-529 provides excellent corrosion protection during operating conditions and intermittent operation.

M-529/M-529 L are very effective for mineral and synthetic based oils: naphthenic, iso-paraffinic, PAOs, etc.

M-529 L additionally contains an EP lubricity package and is recommended for lubricating oil when EP lubricity is needed, such as gears or transmissions.

FEATURES

- Corrosion protection for ferrous and non-ferrous metals
- Does not contain hazardous barium, chromates, nitrites, or phosphate-based inhibitors
- Provides protection in the presence of chlorides
- When added at recommended concentration to fluids, does not affect pour point and viscosity at low temperatures
- Compatible with most mineral and synthetic oils
- Available in superconcentrate form (M-529 SC)

TYPICAL APPLICATION

For lubricating oil systems in intermittent operations, add M-529 to oil at a concentration of 2-5% by weight. Add M-529 SC at a concentration of 1.5-3.5% by weight. Add M-529 L at a concentration of 3-6% by weight.

METALS PROTECTED

- Carbon Steel
- Stainless Steel
- Galvanized Steel
- Aluminum
- Brass
- Copper
- Cadmium
- Magnesium
- Silver
- Zinc
- Solder
- Tin
- Lead
- Bronze

TYPICAL PROPERTIES

Oil Characteristics		Typical Values
Appearance		Dark Amber Color
Specific Gravity		0.92
Viscosity (ASTM D92)	40 °C	185 cSt
	100 °C	16.5 cSt
	Index	93
Pour Point (ASTM D6749)		-29 °C (-20 °F)
Flash Point (ASTM D92)		197 °C (386 °F)
Fire Point (ASTM D92)		227 °C (440 °F)
Total Acid Number (ASTM D974)	mg KOH/g	31.3
ISO Particle Count Code		19/17/13
Oil Separability (ASTM D1401) @ 180 °F	Oil, ml	0
	Water, ml	0
	Emulsion, ml	80
	Time, min	60
Foaming Characteristics (ASTM D892)	Seq. I	320/30/600+
	Seq. II	650/400/600+
	Seq. III	295/30/600+

Properties listed above are typical of those obtained through normal production and do not constitute a specification. M-529 is generally soluble in hydrocarbon based fluids, however compatibility and solubility should be verified prior to use. Please contact Cortec® Technical Service for more information.



PERFORMANCE PROPERTIES

M-529 is a unique oil additive which effectively prevents corrosion of engines during storage and at the same time decreases high-temperature oxidation and wear of metal in working engines. Carbon steel was tested in extreme humidity, with M-529 as an additive according to ASTM D-1748, corrosion resistance was provided for 480 hours.

Tested in Castrol Dieselall® SAE 10W30 and SAE 15W40 engine oils, M-529 dramatically improved protection of carbon steel and copper in a humid atmosphere (ASTM D 1748), and protected carbon steel according to the Ball Run Test in acidic conditions.

When tested in the Cummins High Temperature Corrosion Bench Test and Multimetal Cummins Bench Corrosion Test, M-529 caused no adverse affect on chemical and physical parameters of oil.

Field tests in a gasoline-powered V-8 engine confirmed that incorporating M-529 to engine oil reduces the wear of metals and preserves the oil from oxidation.

Exxon Mobil 320 SHS with 4.5% M-529 L passes Load Stage 12 when tested according to ASTM D 5182, Evaluating the Scuffing Load Capacity of Oils (FZG).

FOR INDUSTRIAL USE ONLY
KEEP OUT OF REACH OF CHILDREN
KEEP CONTAINER TIGHTLY CLOSED
NOT FOR INTERNAL CONSUMPTION
CONSULT SAFETY DATA SHEET FOR MORE
INFORMATION

STANDARD TEST METHODS

ASTM D-4172	4-ball wear test
ASTM D-665	Rust Preventing Characteristics
ASTM D-974	Acid/Base Number by Titration
ASTM D-1401	Water separability testing
ASTM D-1748	Humidity testing
ASTM D-2196	Brookfield Viscometer
MIL-PRF-46002	Contact and Volatile Corrosion Inhibited Oil
MIL-PRF-85062	VCI Oil for Transmission and Gearbox

PACKAGING AND STORAGE

M-529 is available in 5 gallon (19 liter) plastic pails, 55 gallon (208 liter) metal drums, liquid totes, and bulk. M-529 should be sealed before storage. The shelf life is up to 24 months.