



CORROSION INHIBITING ADDITIVES

M-529/M-529 L/M-529 SC, Patented Oil Based Corrosion Inhibitor



METALS PROTECTED

- Carbon Steel
- Stainless Steel
- Galvanized Steel
- Aluminum
- Brass
- Copper
- 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+

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.

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).

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.

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

**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**

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