



VpCI™ ADDITIVES FOR FORMULATORS

M-640

PRODUCT DESCRIPTION

M-640 is a corrosion inhibiting additive for water and ethylene glycol-based engine heat exchange fluids. It protects ferrous and non-ferrous metals from corrosive contaminants. This product is an excellent replacement for phosphate/nitrite-based/amine compounds. M-640 is based on an organic-inorganic formulation designed for low level concentrations in field applications. M-640 contains a unique combination of contact and vapor phase corrosion inhibitors that provides corrosion protection even in partially filled spaces. For situations with extremely hard water, or requiring more vapor phase protection, use M-640 SC.

FEATURES

- Protects ferrous and non-ferrous metals from corrosion and pitting
- Nitrite, chromate and heavy metal free
- Contains contact and vapor phase corrosion inhibitors
- Economical
- Use in low dosages
- Environmentally acceptable

PHYSICAL PROPERTIES

Appearance	Lavender powder
pH	11.5-12.0 (1% solution)
Non-volatile Content	99.5-100%
Solubility in Water	40% by weight

TEST DATA

ASTM D-1384-87 (Standard Test Method for Engine Coolant in Glassware) for engine antifreeze/coolants treated with M-640:

Weight Loss per Specimen (mg)

Additive	Copper	Brass	Solder
0.5% M-640	6-9	1-2	8-9
ASTM D-3306 Requirements	≤10	≤10	≤30
GM 1899 M Requirements	≤10	≤10	≤20
GM 1825 M Requirements	≤10	≤10	≤20

Additive	Carbon Steel	Cast Iron	Aluminum
0.5% M-640	1-2	4-6	1-2
ASTM D-3306 Requirements	10	10	30
GM 1899 M Requirements	10	10	20
GM 1825 M Requirements	10	20	

TYPICAL APPLICATIONS

M-640 is an additive to antifreeze/coolant fluids to replace nitrites, phosphates, amines and other types of restricted corrosion inhibitors. Use M-640 SC if extremely hard water or high vapor phase protection is required.

The final concentration range for M-640 under operating conditions is 0.5-0.8% by weight.

PACKAGING AND STORAGE

M-640 is available in 100 pound (45 kg) polyethylene lined drums. Store in a sealed container in a dry warehouse, avoiding direct exposure to sunlight, with temperatures not exceeding 150°F (66°C). Under these conditions, shelf life is up to 24 months.

FOR INDUSTRIAL USE ONLY

KEEP OUT OF REACH OF CHILDREN

KEEP CONTAINER TIGHTLY CLOSED

NOT FOR INTERNAL CONSUMPTION

CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION

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