M-251
Anticorrosion Additive to Synthetic Cutting Fluids

PRODUCT DESCRIPTION
M-251 is an environmentally friendly, low foaming water soluble corrosion inhibiting additive for synthetic cutting fluids. It provides corrosion protection to carbon steel, copper, galvanized steel, and other ferrous and non-ferrous metals and their alloys. M-251 provides both contact and vapor phases corrosion protection during and after operation.

M-251 is compatible with most water-based lubricants and with a range of biocides. It is compatible with sea water, which allows the use of this additive in off-shore conditions.

FEATURES
• Stable in aqueous systems with a pH of 6 or above
• Can be used with fresh and salt water
• Soluble in water, glycol, and alcohols
• Non-phenolic
• Biodegradable
• Non-hazardous, environmentally friendly

TYPICAL PROPERTIES
Appearance Clear yellow/amber liquid
pH 8-9 (1% solution in water)
Density 8.5-8.7 lb/gal (1.02-1.03 kg/l)
Non-volatile Content 50-60%

Cast iron chip test Pass
(ASTM D-4627, 1% concentration)

Immersion test
(ASTM G 31)
  Fresh water (0.5%) Pass
  Salt Water (5%) Pass

TYPICAL APPLICATION
As an additive to synthetic cutting fluids, M-251 should be added in the following concentrations:

Operation and short term (up to 30 days) protection after the operation - 0.75-1.0%

Operation and longer term (up to 90 days) protection after the operation - 1-5%

Operation with salt water - 2.5-5%

Operation with salt water and short term of protection after the operation - 5-10%

Other applications
• Water-based lubricants
• Alkaline metal cleaners
• Water-based drilling muds
• Water-based hydraulic fluids
PACKAGING AND STORAGE
M-251 is available in 5 gallon (19 liter) plastic pails and 55 gallon (208 liter).

M-251 has to be stored sealed in a heated warehouse to avoid freezing. The shelf life is 24 months.