



# VCI METALWORKING PRODUCTS

# VCI-345

#### PRODUCT DESCRIPTION

VCI-345 is a premium water-based metalworking lubricant concentrate for difficult-to-produce metal stampings, tubular products and machined parts. VCI-345 is superior to petroleum-based coolant rust preventives. When used as directed, VCI-345 prevents corrosion during in-plant processing, storage and export shipment up to 24 months. VCI-345 is ideally suited for light-duty machined and polished parts requiring long-term corrosion and surface protection.

VCI-345 can be effectively used as a coolant in machining applications where maximum cooling is employed. High-performance characteristics of VCI-345 make it ideally suited for light-duty cutting, milling, turning, drilling, boring, broaching, gear cutting and other machining operations. VCI-345 can replace neat oils and semi-synthetics when there is a requirement for maximum coating and superior rust inhibiting stability. VCI-345 is resistant to rancid attack by bacteria. Product life is the same or longer than similar machining fluids.

# TYPICAL APPLICATIONS

- In-plant machining
- Protection of hot-rolled, cold-rolled, galvanized and aluminized steel
- Coolant for machining of castings, highly polished pieces and other parts, providing superior protection between machining operations and further processing or assembly

#### METAL PROTECTED

- Carbon steel
- Stainless steel
- Aluminum
- Galvanized steel
- Zinc
- Cast iron

# FEATURES

- Unique vapor phase corrosion inhibitor action protects uncoated and difficult-to-reach areas in castings and stampings
- Excellent wetting
- Economical VCI-345 can be diluted with up to 40 parts water
- Protects ferrous and non-ferrous metals
- Easy to remove from metal surfaces with alkaline cleaners (VCI-410 series)
- Does not contain flammable solvents, reducing fire hazards
- Contains no chlorinated compounds, chromates, nitrites or other environmentally unsafe compounds
- Eliminates cleaning and housekeeping problems associated with rust inhibiting oils
- Gives protection to parts after completion of metalworking operations, thus eliminating the need for further applications of rust preventives
- Rancid stability and resistance to bacterial attack
- Passes ASTM D 4627-86 (Test Method for Iron Chip Corrosion for Water-soluble Metalworking Fluids) at 2.5% by weight
- Weldable

# METHOD OF APPLICATION

Short-term protection/Light-duty machining (up to 2 months):

1 part concentrate to 20-40 parts water

Medium-term protection/Medium-duty machining (2 to 23 months):

1 part concentrate to 10-20 parts water

Long-term protection/Heavy-duty machining (up to 24 months):

1 part concentrate to 4-10 parts water



#### **TYPICAL PROPERTIES**

Appearance	Clear yellow to amber liquid
Film Type	Dry
Non-volatile Content	32-38%
pН	8.5-9.2 (Neat)
Density	8.8-9.0 lb/gal (1.05-1.08 kg/l)
Removal Methods	Alkaline cleaners (VCI-410 series)

### **P**ACKAGING AND STORAGE

VCI-345 is available in 5 gallon (19 liter) plastic pails, 5 gallon (208 liter) metal drums, liquid totes and bulk. The product should be sealed and stored in a heated warehouse to avoid freezing. VCI-345 has a shelf life of 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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