

# TEC-GUARD

## CHEMICAL

### VCI-F Oil

#### Product Description

Tec-Guard Chemical VCI-F Oil is a vapor phase corrosion inhibitor and flushing fluid, which should be used to protect internal tanks from corrosion, flush tanks to disperse debris and offer protection for the external surfaces of parts. It contains less than 15 ppm sulfur and is compatible with fuel, lubricating and hydraulic oils. VCI-F Oil contains a special low pour point synthetic ester contact inhibitor blend, which will not varnish, harden or react with cleaner residues left in systems. The vol-atile corrosion inhibitor blend will protect the headspace in "closed systems" such as engines, transmissions, hydraulic tanks and cylinders, gear housings, fuel tanks and steel drums. The duration of the vapor phase protection provided depends on how well the tank is sealed. Protection for several years can be achieved if the tank is hermetically sealed or bagged with LDPE (>0.125mm thick) plastic and sealed. For incompletely sealed systems periodic endoscope inspection and possible re-application may be required.

#### Product Advantages

- Tec-Guard Chemical VCI-F Oil is often used to protect sheet metal stampings, spare parts, etc. if sealed in >0.125mm LDPE bags.
- Tec-Guard Chemical VCI-F Oil is distinguishable from conventional preservative oils as it gives both vapor phase and contact corrosion protection.
- Tec-Guard Chemical VCI-F Oil is particularly effective in fuel tanks, hydraulic tanks, and ferrous components while in transit or temporary storage. VCI-F Oil is designed to lift, displace and encapsulate adsorbed water and washer residue from the surface to protect the tank from corrosion and staining.

TYPICAL PHYSICAL PROPERTIES	VALUES
Fluid Type	Oil Based
Appearance	Clear liquid
Odor	Mild amine
Specific Gravity, 60°F (15.6°C)	0.856
Weight, 60°F (15.6°F)	7.5 lbs/gal.
Viscosity, 40°C	19.9 cSt
Viscosity, 100°C	4.0 cSt
Viscosity Index	34
Flash Point, COC	385°F (196°)
Pour Point	-67°F (-55°C)
VOC	70 grams/liter

Note: Tec-Guard makes no warranty or representation either expressed or implied, including warranty of merchantability or fitness concerning this product except that it conforms to the chemical description on the label. All risks resulting from the use of this product are to be borne by the buyer at its sole expense. Neither Tec-Guard nor the seller shall be responsible in any manner for any personal injury or property damage, or other type of loss resulting from the handling, storage, or use of this product

**TEC-GUARD**

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#### Approvals

- Certified CAT 1E 2359 Corrosion Preventative VCI Oil
- Super-compliant for California SCAQMD Rule 1144

#### Directions

Adequate protection is achieved at 0.2 to 0.8% volume of VCI-F liquid/volume of internal tank space. The tank should be as dry as possible before the addition of Tec-Guard Chemical VCI-F Oil. To ensure optimal protection, it is preferred that the oil is fogged into the tank using a 360° pole gun atomizer or wand. After application, if possible, the tank should be rotated 360° from both axes for maximum wetting with at least 10 microns of oil film thickness per square centimeter. This is especially critical in the top portion of the inside of the tank since the top portion of the tank is the most critical area. Be aware of baffles within the tank which may inhibit adequate coverage. Using an endoscope to confirm that coverage of Tec-Guard Chemical VCI-F Oil in the tank is adequate is a way to minimize potential corrosion issues. After coverage, the fuel can be added.

#### TOXICITY

Tec-Guard Chemical VCI-F Oil is composed of highly refined petroleum distillate and a non-toxic synthetic ester blend. The product contains a relatively small amount of a volatile substance which may be irritating to eyes, skin and mucous membranes. Prolonged exposure to the vapors should be avoided. Consult the SDS for more details.

#### STABILITY

Tec-Guard Chemical VCI-F Oil is unaffected by ambient temperatures and remains stable (and effective) indefinitely as long as kept indoors in a vapor-tight container. The material should always be placed in a closed container to minimize escape of the Volatile Corrosion Inhibitor.

#### EFFECT ON NON-METALLIC MATERIALS

Tec-Guard Chemical VCI-F Oil has little to no effect on rubber, painted surfaces, or plastics. Should a question arise, however, because of the wide variance in the composition of these materials, immerse the specimen in a container of Tec-Guard Chemical VCI-F Oil and maintain at 130°F (55°C) in an oven for 72 hours. Examine for visible signs of change.

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