# ...: Bellicide .....

## **Benefits**

What benefits will users experience with Bellicide?

- 1. Kills completely at fastest rate
- 2. Maintains kill effect for a longer period of time than most biocides
- 3. Works effectively in both fuel & water phases
  - This is important to ensure the biocide product isn't de-activated or made ineffective by any water in the fuel
- 4. Requires low treat rates
- 5. Provides best overall cost efficiency among biocide products

# Use In:

- Gasoline or Diesel
- Fuel Storage Tanks

#### **Questions For Customers**

Questions and answers to questions to ask your customers and prospects to determine if they need to treat with a biocide.

#### Q. Are you having any of these symptoms or problems with your fuel or your equipment running on that fuel?

- Clogged fuel filters (more than usual)
- Water detection in storage tank
- Increased fuel burn (sudden and unusual rise in fuel consumption)
- Frequent cleaning or replacement of injectors
- Fuel discoloration
- Foul fuel odor or unusual black exhaust

The first two are most important. The final five are secondary indicators of microbial contamination.

# **Questions From Customers**

Answers to common questions customers may pose about Bellicide and biocide use.

#### Q. Why do I need a biocide if I have a microbe problem?

A. A microbe problem can only be solved if you add something (a biocide) to the fuel that kills the organisms.

# Q. If I have a microbe problem, can I solve it by simply removing water from the tank?

A. Removing water will not kill the microbes. It will only cause them to become "dormant". Once free water develops again in the tank, the microbe problem will return.

#### Q. Can I add Bellicide directly to a vehicle fuel trank?

A. Legally, it is not recommended. Instead, simply add your required amount of biocide to a small fuel container (like a gas can) and add that mixture to your fuel tank.

#### Q. How long does Bellicide take to work?

A. The final answer here depends on the level of microbial contamination in the tank and how well the biocide is mixed into the fuel. In many cases, you should see complete kill within several hours; sometimes as little as one hour.

#### Q. How long does Bellicide last in the fuel?

A. Bellicide continues to kill microbes in fuel for up to four weeks - longer than most biocide chemistries on the market.

#### Q. How often do I need to treat my fuel with Bellicide?

A. For an existing microbe problem, in many cases only one treatment is needed. In rare cases, severe contamination may necessitate a second treatment. We recommend microbial monitoring and periodic re-treatment (depending on the monitoring results) of the fuel to prevent re-establishment of microbes in the future. For customers who cannot do microbial monitoring, a typical recommendation is quarterly treatment of fuel tanks.

#### Q. How do I apply Bellicide for best effectiveness?

A. See guidelines listed under Treatment Tips & Recommendations

# Treatment Tips & Recommendations

- 1. Use Shock Dosage to kill existing microbe problems.
- 2. When not conducting microbial monitoring, use Maintenance Dosage every 3 months to prevent future infestations.
- 3. After biocide treatment, you may have to change fuel filters a few times until all dead microbes have been removed
- 4. If microbial biomass is present in the tank, recommend tandem treatment with Tank Treatment SDF and Bellicide products.

# Treat Ratios: How much to use?

- 1. Shock Dosage: 1 oz: 40 gallons (to kill established microbial problems)
- 2. Maintenance Dosage: 1 oz: 80 gallons (to prevent future problems in cases where microbial monitoring is not being used)