

## KATHON™ FP1.5 FUEL BIOCIDES PRODUCT DATA

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### DESCRIPTION

KATHON™ FP 1.5 microbiocide from Dow Microbial (Formerly Rohm and Haas) is a patented, high performance antimicrobial agent, developed specially to combat problems of microbial contamination and spoilage in hydrocarbon fuels. KATHON™ FP 1.5 is a broad spectrum preservative and disinfectant for the treatment of diesel fuels, kerosenes, heating oils and aviation fuels, the active components being isothiazolone compounds. As water finds its way into fuel storage tanks, often observed as fuel haziness, microorganisms breed, forming slime and emulsion that leads to filter blockage and corrosion of metal tanks. Once transported, the contaminated fuel contains the accumulated bacteria and fungi which cause the blockage of downstream filters, pumps and injectors.

Treatment with KATHON™ FP 1.5 will kill off bacterial and fungal contamination and assist the breakdown of slimes and coagulated biological sludges. This will help to prevent filters from blinding, and allow clean fuel to flow normally. An extra advantage is the elimination of the often deep emulsion layer at the fuel/water interface which will facilitate water removal by draining or by the fuel line separator. It is this emulsion that is often the critical problem when it enters the fuel line after fuel contents of a tank are disturbed or shaken. Fuel treated with KATHON™ FP 1.5 will remain protected from contamination over extended periods of time. It will also resist contamination if re-inoculated from other sources. In studies conducted over an 8 week period, contaminated fuels were treated with fuel biocides. The fuel treated with KATHON™ FP 1.5 remained free from contamination for the duration of the trial. None of the competitive products evaluated could match this performance. KATHON™ FP 1.5 has outstanding performance in a variety of applications and has wide ranging approvals and endorsements for use in aviation, marine, automotive, home heating and military fuels. Full details of approvals for KATHON™ FP 1.5 are contained in a separate bulletin.

### AVIATION APPLICATION

A dose rate of 100ppm with a minimum retention time of 12 hours should be used in JET A1 fuel and all other aviation applications.

### OTHER APPLICATIONS

KATHON™ FP 1.5 is normally dosed at the rate of approximately 300 ppm, which corresponds to 0.3 kg per 1000 litres of fuel volume. If Kathon FP1.5 is being dosed as a precautionary measure, when there is no evidence of microbial contamination, a lower dosage rate of approximately 150 ppm (0.15 kg per 1000 litres) will be appropriate. In cases of severe contamination, however, a dosage rate of up to 1000 ppm (1 kg per 1000 litres) should be used. The higher dosage rates in these circumstances will also help to improve filter fuel flow in the short term. At 300 ppm a minimum retention time of 12 hours should be maintained but this may be reduced at the higher dosage rates. In general, the higher the concentration of biocide, the shorter the contact time required for a more complete kill but in all cases 24 hours retention is sufficient. **Where possible, water and sludge should be removed from fuel tanks before dosing KATHON FP1.5 and also after the retention period.** If this is not feasible, filters should be checked more frequently for a short period, due to microbial slimes being killed off and dislodged. Ideally, KATHON™ FP 1.5 should be dosed shortly before the tank is re-filled with fresh fuel. The resulting agitation of the fuel then ensures uniform mixing of the biocide throughout the tank. KATHON FP1.5 can be added directly to the tank in such cases. If dosing cannot be carried out shortly before a fuel delivery, it is preferable to dissolve the KATHON™ FP 1.5 in a small quantity of fuel, and then add the solution to the tank. Tanks must be at least 10% full before dosing and preferably fill the tank after dosing. Depending upon site circumstances, it may sometimes be necessary to neutralise residual biocide before discharging treated water bottoms to the foul drain. Please see main brochure.

### AVAILABILITY

KATHON FP1.5 is supplied in 5 kg, 20 kg and 195kg polythene containers.

## HANDLING DATA

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**COMPOSITION** A solution of 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one

**USE** A broad spectrum fuel biocide.

**PROPERTIES** Appearance Clear colourless to pale yellow liquid  
S.G. 1.04 at 25.00OC  
pH (10 % solution) 4.4  
Hazardous Components Active components are irritants  
Volatile Components None  
Flammability Not flammable  
Solubility Soluble in water in all proportions  
Potential Hazards May be harmful if ingested  
Shelf Life Retention of > 95% actives in 12 months  
Storage Store in a warm, dry area protected from frost or excessive heat.

**HANDLING** Irritating to skin  
Risk of serious damage to eyes  
May cause sensitization by skin contact  
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**PROTECTION** Wear goggles, PVC or rubber gloves, and protective clothing.

**SPILLAGES** Absorb in inert material and dispose of in accordance with local regulations.

**FIRST AID** **Inhalation:** Move to fresh air. Give artificial respiration if breathing has stopped. If symptoms persist, call a physician.

**Skin contact:** IMMEDIATELY get under a safety shower. Remove contaminated clothing. Wash off with soap and water. Immediate medical attention is required. Wash contaminated clothing before re-use. Do not take clothing home to be laundered. Discard contaminated shoes, belts, and other articles made of leather.

**Eye contact:** Rinse immediately with plenty of water for at least 15 minutes. Immediate medical attention is required. Ingestion: Drink 1 or 2 glasses of water. IMMEDIATELY see a physician. Never give anything by mouth to an unconscious person

## TRANSPORT

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Classification for ROAD and Rail transport (ADR/RID): Not regulated (Not dangerous for transport)

Classification for SEA transport (IMO-IMDG): Not regulated (Not dangerous for transport)

Classification for AIR transport (IATA/ICAO): Not regulated (Not dangerous for transport)

For full information please see the Material Safety Data Sheet: <http://www.fuelcare.com/kathonmsds.htm>

KATHON™ IS A TRADE NAME OF DOW MICROBIAL (FORMERLY ROHM & HAAS)