

1. Shake sample and then allow to stand. If free water is present determine whether to test fuel/oil or water. Determine the recommended test volume (aviation fuel 0.5ml; other fuels 0.25ml; oil 0.01ml; water associated with fuel/oil 0.1 or 0.01ml; see Instruction Leaflet and appropriate technical guidance leaflets for further details).

2. Break and discard the plastic seal on the MicrobMonitor2 bottle. Remove the cap and place on a clean surface. Don't touch the inside of the cap or bottle neck. Using the supplied loop (0.01ml) or syringe (for other volumes), transfer the required volume of sample to the MicrobMonitor2 bottle and replace the cap.



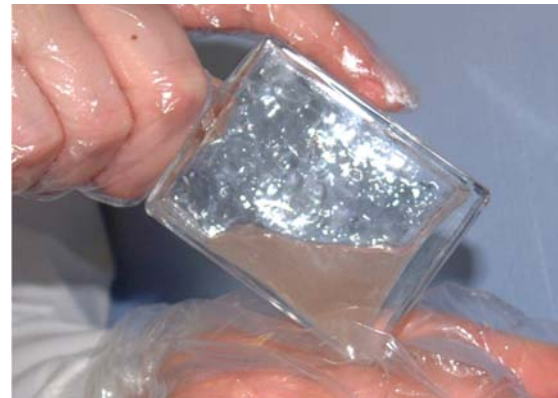
3. Tap the bottle to break up the gel.



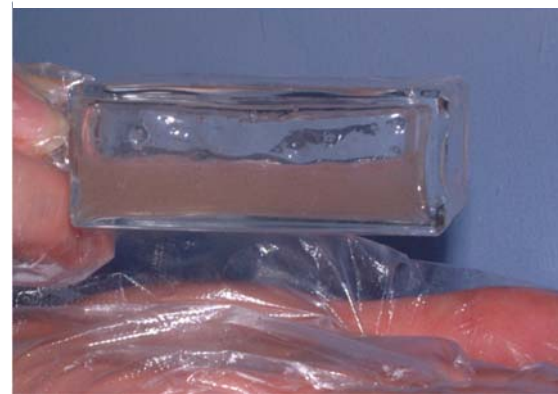
4. Shake vigorously for 30 seconds. Ensure gel is not lumpy and sample is fully dispersed.



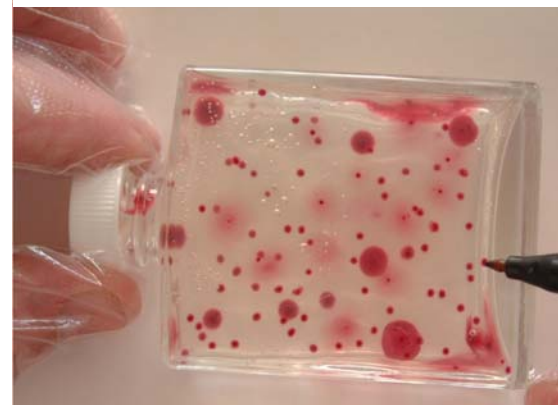
5. Flick the gel into the bottom of the bottle.



6. Tap the bottle to make a flat layer of gel. Lay the bottle flat (with gel layer at the bottom) in a warm dark place and incubate at 25 °C (± 3°C) / 77°F (± 5.4°F) for 4 days. Examine at least once in the first 3 day and again after 4 days. Try not to disturb the gel during examination.



7. To examine the test, hold bottle against a light background and count all of the red / purple colonies, marking them off on the bottle with a felt tip pen. Re-incubate and examine as necessary for up to 4 days. If there are too many colonies to count an estimate of their number can be made by comparison to the chart provided.



NB.

Alternative incubation temperatures may be appropriate. If the temperature falls below the required range during incubation, colonies will take longer to develop; extend incubation by a time equivalent to the time the temperature was below the required range.

If it is difficult to distinguish colonies (e.g. streaky patches or unusual colour) see Instruction Leaflet and Technical Guidance document EP157 for further details.

Appearance after incubation	Number of colonies in test bottle (counted or estimated)	Volume tested	Microbial Content of Sample
	None	0.5 ml of fuel (syringe)	<2000 CFU per litre
		0.25 ml of fuel (syringe)	<4000 CFU per litre
		0.1 ml of water (syringe)	<10 CFU per ml
		0.01 ml of water or oil (loop dispenser)	<100 CFU per ml

	10 Colonies If possible, count the exact number of colonies and calculate the actual number of CFU present in the sample	0.5 ml of fuel (syringe)	2 x 10 ⁴ CFU per litre
		0.25 ml of fuel (syringe)	4 x 10 ⁴ CFU per litre
		0.1 ml of water (syringe)	100 CFU per ml
		0.01 ml of water or oil (loop dispenser)	1000 CFU per ml

	100 Colonies If possible, count the exact number of colonies and calculate the actual number of CFU present in the sample or Estimate 100 colonies if result is similar to picture	0.5 ml of fuel (syringe)	c. 10 ⁵ CFU per litre
		0.25 ml of fuel (syringe)	c. 10 ⁵ CFU per litre
		0.1 ml of water (syringe)	c. 10 ³ CFU per ml
		0.01 ml of water or oil (loop dispenser)	c. 10 ⁴ CFU per ml

	Estimate 1000 colonies if result is similar to picture	0.5 ml of fuel (syringe)	c. 10 ⁶ CFU per litre
		0.25 ml of fuel (syringe)	c. 10 ⁶ CFU per litre
		0.1 ml of water (syringe)	c. 10 ⁴ CFU per ml
		0.01 ml of water or oil (loop dispenser)	c. 10 ⁵ CFU per ml

	Estimate 10,000 or more colonies if result similar to picture	0.5 ml of fuel (syringe)	c. 10 ⁷ CFU per litre or above
		0.25 ml of fuel (syringe)	c. 10 ⁷ CFU per litre or above
		0.1 ml of water (syringe)	c. 10 ⁵ CFU per ml or above
		0.01 ml of water or oil (loop dispenser)	c. 10 ⁶ CFU per ml or above

Note: numbers of microorganisms are normally expressed as colony forming units (cfu) per litre of fuel and per ml of water or oil.