oelheld
innovative fluid technology

Troubleshooting for water miscible coolants

Problem	Possible Reasons	Possible Action
Foam Formation	1) Low coolant level in the tank 2) Pump draws air 3) Too high concentration 4) Water too soft 5) Contamination with cleaner	1) Top up coolant 2) Seal pump 3) Refill with a lower coolant concentration 4) Harden up with calcium acetate 5) Add defoamer
Instability of the Emulsion	1) Mixing incorrectly 2) Contamination with fungi/bacteria 3) Temperature too high/low 4) Water too hard	1) First water, then concentrate (Oil In Last) 2) Use biocide 3) Working temperature 65°F to 95°F 4) Use deionized water
Smoke Formation	1) Too high concentration 2) Instability of the emulsion 3) Too high foreign oil content	1) Refill with a lower coolant concentration 2) First water, then concentrate (Oil In Last) 3) Vacuum the foreign oil from the top of the tank
Fungal or Bacterial Contamination	1) Contaminated water 2) Environment polluted 3) pH value too low 4) Too low concentration 5) Foreign oil content too high 6) Cross-contamination	1) Use tap water or water treatment 2) Clean gratings 3) Increase sump concentration / use biocide 4) Top up with highly concentrated emulsion 5) Vacuum the foreign oil from the top of the tank 6) Disinfect bypass devices
Corrosion	1) pH value too low 2) Too low concentration 3) Water too hard	1) Increase concentration/ use biocide 2) Top up with highly concentrated emulsion 3) Use deionized water
Reduced Sump Life	1) Pressure, volume 2) Too low concentration 3) Foreign oil content too high 4) Nozzles – Feeding 5) Abrasive wear	1) Open valves, remove blockage 2) Top up with highly concentrated emulsion 3) Vacuum the foreign oil from the top of the tank 4) Check alignment 5) Check filter
Deposits	1) Water too hard 2) Foreign oil content too high 3) Too high concentration 4) Biological contamination	1) Use deionized water 2) Vacuum the foreign oil from the top of the tank 3) Fill with less concentrated fluid 4) Use biocide
Respiratory Problems / Skin Irritation	1) pH value too high 2) Too high concentration 3) High metal abrasion 4) Dirty cleaning cloth 5) Biological contamination 6) Allergy	1) Cleaner contaminated 2) Top up with less concentrated fluid 3) Check filters 4) Use disposable cloth 5) Use biocide 6) Allergy testing by family doctor
Instability of the concentrate in drum	1) Expiration date exceeded 2) Rain contamination 3) Temperature 4) Reaction with container	1) Check storage duration in SDS 2) Correct storage (horizontal) 3) Storage temperature 41+°F to 104+°F 4) Use container without zinc or paint

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