Dos and Don’ts of Handling Aqueous Cutting Fluids

Dos
- Do add the concentrate to the water. Use freshly mixed product only.
- Do ensure sufficient and correctly positioned coolant flow on the work piece and tool without excessive pressure.
- Do monitor and record coolant condition regularly and take the necessary corrective measures in a timely manner.
- Do keep systems clean by avoiding adding contaminants, such as food, drinks, cigarettes, etc.
- Do remove tramp oil frequently.
- Do ensure that all leaks of hydraulic oil, gearbox and other machine tool lubricants are attended to immediately.
- Do keep coolant concentration at recommended level allowing for slideway/ hydraulic oil contamination.
- Do actively seek advice and training on coolant maintenance and control from your local ExxonMobil distributor.

Don’ts
- Don’t use water from infected sources, such as fire hose, borehole, header tank, etc.
- Don’t put clean coolant into dirty machines. Use Mobilcut ESC cleaner and follow the specified cleaning procedure carefully.
- Don’t leave machines full of coolant standing idle for long periods, particularly when contaminated with tramp oil.
- Don’t use a metal working fluid beyond its working life.
- Don’t prepare products in dirty or galvanised containers.
- Don’t top up with water. Always use diluted emulsion.
- Don’t allow operators to eat, drink or smoke near machine tools.
Machine Preparation

Using Mobilcut ESC
1. Introduce Mobilcut ESC (emulsion system cleaner) at 2% solution into the machine. Circulate for up to 48 hours whilst continuing with normal work.

2. Apply undiluted Mobilcut ESC to clean heavily contaminated areas.

3. Pump out all used emulsion and washings. Remove all oily waste and swarf from the machine sump.

4. If possible, repeat cleaning procedure with a fresh 2% solution of Mobilcut ESC in clean water and circulate for one to two hours.

5. Clean the machine completely and flush with fresh dilute emulsion.

6. Introduce diluted Mobilcut into the machine at the correct concentration.

Coolant Maintenance

Daily and Weekly Actions
1. Check concentration of emulsion with a refractometer at the beginning of every day/shift.

2. Check pH with pH meter or pH paper.

3. Remove as much tramp oil as possible every week after the coolant has been static for one hour.

4. Always top up with weak emulsion, never with water.

5. Keep good records of coolant progress using monitoring charts. Make corrections as required.

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