

Machining

## Case Study: Castrol Syntilo 9913 – Automotive

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### THE SITUATION

A major wheel manufacturer is machining magnesium wheels. The resulting high levels of contamination would result in problems with machining. High contamination led to frequent changes of the coolant and problems with surface finish.

### BEFORE CASTROL

- Hardness levels of 80 grains per gallon
- Chloride levels of 300-400 ppm within a 3-month period
- Frequent dump and recharge of the system
- Surface finish and reject issues

### THE SOLUTION

Customer experienced splitting of previous coolant as a result of high Mg levels generated by the casting release agent. Systems also run at elevated hardness levels, frequently as high as 100 grains per gallon. Syntilo 9913 was put into two central systems and had none of these issues.

### AFTER CASTROL

- Improved system control and cleaner system operation
- Improved surface finish and part quality
- Longer coolant life
- Reduced maintenance and disposal costs

### RECOMMENDATIONS

Castrol Syntilo 9913 performed well in the presence of high Mg levels and total hardness levels in excess of 100 gpg. Systems ran on Castrol Syntilo 9913 for three years with no residue or machining issues.

### CONCLUSION

The customer realized savings of 1152 hours of production, which resulted in production of 69,000 more

wheels than normal operations with the previous product would have allowed.

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