

# NuSol 21 Supreme CHY

## Product Attributes and Case Histories

CS Nusol 21 Supreme CHY

March 18, 2007

## CHRYSLER KOKOMO CASE STUDY

The NuSol 21 Supreme CHY was developed specifically for large central systems running cast iron. It is an offshoot of Chemtool's NuSol 21 Supreme. The product has a higher oil content for improved residue characteristics, as well as an added wetting agent to prevent fines from floating and coagulating on machine surfaces. The NuSol 21 Supreme CHY has been running in an 80,000 gallon central system with paper filtration and chain drag out since November 2005 at Chrysler's Kokomo Indiana facility. Chrysler had previously tested 5 other products from different suppliers. Each product failed within 6 months. Problems included severe corrosion, rancidity, and excessive usage of tank side additives, averaging \$25,000 per month to keep the products together. The NuSol has required only minimal tank side additives under extreme conditions since the change two years ago. In the first year maintenance savings over the previous well known soluble oil product was in excess of \$120,000.

One of the major improvements has been the superior corrosion preventative properties of the NuSol. At the end of each shift parts from each cell (75 total machines) are put aside and observed for corrosion. With the previous product the parts would fail within 1 hour. The NuSol has never had a part rejected due to corrosion. The reduction in mist has also been an additional performance advantage. The product runs between 5-8% with a monthly make up/ consumption of 275 gallons.

For a customer testimonial please contact Mr. Will Harris (Chrysler Kokomo Coolant Supervisor) at 765-454-4974

## NUSOL: A HISTORY OF SUCCESS

Chemtool introduced the NuSol chemistry in late 2004. Since then it has captured a significant amount of new business within the organization. With over 200 customers now using the Nusol brand we have been able to learn a great deal about the performance advantages of the chemistry. From this data we have been able to successfully implement and gain approvals from an impressive list of manufacturers including;

- Chrysler
- Caterpillar
- Pratt And Whitney Aerospace
- Bombardier Aerospace
- GKN
- Mercury Marine

From these accounts to the numerous systems we are currently running NuSol in, we have seen a consistent level of customer satisfaction in both performance and worker health and safety issues.

Many of our customers have required a chemistry that will increase their productivity, improve their efficiency, and meet tight budgets restraints. Nusol has answered that call. Chemtool has used the NuSol low oil chemistry as a means to eliminate down stream cleaning, rust preventative and other production requirements. The high viscosity oil has allowed our customers to remove more stock (0.001-.200 thousands) from tough stainless steel alloys to delicate non ferrous materials that require extreme micro finishes and micro tapping. This also has lead to improved tool life, adding additional cost savings for our customers.

### Customer Profile

Chrysler Kokomo

#### Alloys

- Cast Iron

#### Machines

- 75 cells 80,000 gal

#### Tooling

- Carbide

#### Operations

- Drilling
- Reaming
- Turning
- Tapping

#### Filtration

- Paper Filtration
- Chain Drag Out
- Oil Skimmer

### Performance Points

- Unparalleled Biostability
- Water washable residues
- Stable pH
- Superior corrosion protection
- Rapidly rejects tramp oil
- Low consumption
- Zero VOC's
- Reduced misting