

Disruption in the 3M[™] Novec[™] Market Creates Significant Cost Savings with New Alternatives for Forensic Investigation Community

SITUATION

In December 2022, 3M[™] announced the voluntary discontinuation of the Novec[™] line, including the 3M[™] Novec[™] 7100 and 3M[™] Novec[™] 71DE by the end of 2025. This decision has significant implications for the Forensic Science community and government/crime investigation organizations. It is vital this industry be supported for the safety of our neighborhoods and country. Best Technology is a nationally authorized 3M[™] distributor of the Novec[™] products and has developed BestSolv[™] fluids as direct replacements for 3M[™] Novec[™] 7100 and 3M[™] Novec[™] 71DE.



Forensic Science

CHALLENGE

When qualifying and revalidating for new process chemistries, there are several challenges that need to be addressed. Best Technology approached these challenges head-on, working together with our customers across multiple industries to identify the customers' top concerns.

1. Supply chain interruptions - BestSolv[™] fluid materials are dual sourced to allow for a consistent supply chain of the fluids.
2. Price Hikes - BestSolv[™] Sierra, BestSolv[™] Delta, and BestSolv[™] 7100 perform as carrier solvents in like fashion to 3M[™] Novec[™] 7100 and 3M[™] Novec[™] 71DE. Even with matched performance, BestSolv[™] fluids have significant cost savings compared to 3M[™] Novec[™] fluids. Best Technology aims to keep prices as low as possible for our customers.



Disruption in the 3M™ Novec™ Market Creates Significant Cost Savings with New Alternatives for Forensic Investigation Community

ACTIONS

At Best Technology, we have demonstrated successful experience in transitioning customers from one chemistry to another. Back in the 2000s, we successfully worked with our customers to transition them from older generation solvents such as AK225 to the next generation of solvents. Our tried and tested process ensures success by following a comprehensive set of steps. With disciplined project management, we prioritize the quality of our products, supply chain mitigation and budget considerations to meet our customers' needs. By adhering to this method, we can confidently guarantee a high probability of successfully implementing a chemistry transition.

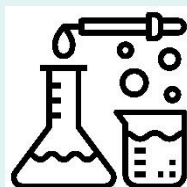
The Best Technology Proven Process for this chemical transition and qualification is:

- Identified the replacement chemistry with the expertise of Best Technology, taking into account such aspects as a) Chemical performance b) Technical specifications c) Regulatory concerns d) Supply chain risk mitigation e) Production operating costs of customers
 - Tested and qualified the replacement chemistry with ISO-certified testing laboratories
 - Best Technology provided technical information for customer looking to transition from 3M™ Novec™ 7100 and 3M™ Novec™ 71DE for BestSolv™ Sierra, BestSolv™ Delta and BestSolv™ 7100 including the SDS and TDS
- Best Technology provided samples to agencies for testing
- Based on the analysis of customer's usage profile, Best Technology presented a model of expected cost-savings

3 FORMULATION OPTIONS

1. NINHYDRIN with BestSolv™ 7100 or BestSolv™ Sierra.
 - 5 grams Ninhydrin crystals
 - 45 ml Ethanol
 - 2 ml Ethyl Acetate
 - 5 ml Acetic Acid
 - 1 L BestSolv™ 7100 or BestSolv™ Sierra

For all formulas, combine each ingredient thoroughly with a magnetic stirrer before adding your next ingredient.



2. DFO with BestSolv™ Sierra and BestSolv™ Delta
 - 0.25 g DFO Powder
 - 30 ml Methanol
 - 20 ml Acetic Acid
 - 275 ml BestSolv™ Delta
 - 725 ml BestSolv™ Sierra

3. 1,2 Indanedione with BestSolv™ 7100 or BestSolv™ Sierra

- 2g 1, 2-Indanedione
- 70 ml Ethyl Acetate
- 930 ml BestSolv™ 7100 or BestSolv™ Sierra

Disruption in the 3M™ Novec™ Market Creates Significant Cost Savings with New Alternatives for Forensic Investigation Community

RESULTS

Best Technology's agency customers successfully revalidated within two months and completed the transition from the carrier solvents 3M™ Novec™ 7100 and 3M™ Novec™ 71DE to BestSolv™ Sierra and, BestSolv™ Delta. As a result, the customers have ensured a seamless transition, avoiding the threat of interruption to the vital work they perform, and achieved a fluid cost savings of over 24%. The customers' satisfaction and substantial cost savings demonstrate a true win-win outcome.



BESTSOLV™ Sierra, BESTSOLV™ Delta and BESTSOLV™ 7100

The NEW Industry Accepted Forensic Science Standard

BestSolv™ Sierra and BestSolv™ Delta are a new generation HFE (Hydrofluoroether) and an alternative replacement for HFE 3M™ Novec™ 7100 and HFE 3M™ Novec™ 71DE. BestSolv™ 7100 is an exact molecule replacement for the HFE 3M™ Novec™ 7100. Like the 3M™ Novec™ 7100, these solvents are nonflammable, have low toxicity, low global warming potential and zero ozone depletion potential.



Distributed Exclusively By:

Best Technology

☎ (612) 392-2414

✉ Chemicals@BestTechnologyInc.com

🌐 www.BestSolv.com/Forensics

1. Dual sourced – BestSolv™ fluids/raw materials are dual sourced to allow for a consistent supply chain of the fluids.
2. Cost and performance – BestSolv™ fluids perform in like fashion to 3M™ Novec™ fluids. Even with matched performance, BestSolv™ fluids have significant cost advantages.
3. No formulation changes necessary.

When transitioning chemical solvents, customer internal evaluation is important for validation to specific application requirements.

Reach out our expert chemical team at chemicals@besttechnologyinc.com