Chemir / Polytech

Laboratories, Inc.

ANALYSIS REPORT

Prepared for:

Mr. Danny R. Warren Warren Environmental Inc.

Prepared by: G. Fred Willard, Ph.D. Director - Materials Science (314) 291-6620

July 2, 1999





Chemir / Polytech Laboratories, Inc.

Materials Analysis Specialists

- Materials Identification
- Polymer Testing

▲ Deformulations

2 July, 1999

Mr. Danny R. Warren Warren Environmental Inc. P.O. Box 125 South Carver, MA 02366

Re:

Chemical Resistance.

P.O. #: Verbal

Chemir/Polytech Job #: 25565

Dear Mr. Warren:

As per your request, we have completed the analysis of your sample "Coating "S-301 A&B, T-301 A&B" (Chemir/Polytech #991354) determining chemical resistance using Jet Fuel A at 50°F in accordance with ASTM D 543 - 95 Standard Test Method for Evaluating the Resistance of Plastics And Other Materials To Chemical Reagents. The results are summarized below.

SAMPLE LOG-IN

The sample was logged as follows:

SAMPLE DESCRIPTION	CHEMIR/POLYTECH SAMPLE NUMBER
Coating "S-301 A&B, T-301 A&B"	991354

ANALYSIS CONCLUSIONS

No changes in weights, dimensions, or appearance were noticed in any of the specimens after five and seven days of total immersion in Jet A Fuel at 50°F.

ANALYSIS RESULTS

Sample Description	Five Days Immersion	Seven Days Immersion
S-301, A&B	No change in dimensions, weight, or appearance.	No change in dimensions, weight, or appearance.
T-301, A&B	No change in dimensions, weight, or appearance.	No change in dimensions, weight, or appearance.
S-301 & T-301 Mixed	No change in dimensions, weight, or appearance.	No change in dimensions, weight, or appearance.



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ANALYSIS DISCUSSION

This test method covers the evaluation of materials for resistance to chemical reagents. These practices include provisions for reporting changes in weight, dimensions, and appearance. The specimens were prepared in accordance with ASTM D 543, Section 8.1.1.1. All measurements were made using a micrometer. The weights were measured using a Mettler Model PE 360 Laboratory Balance. The Jet A Fuel was purchased from Spirit of St. Louis Airport in Chesterfield, MO. The specimens were weighed and measured and placed inside a container and held at 50°F for a period of five and seven days. The samples were removed, wiped with a dry cloth, and remeasured.

INSTRUMENTATION

SCIENTIFIC INSTRUMENT	MANUFACTURER/MODEL	PURPOSE
MAX-CAL	Fowler & NSK	Dimensional measurements.
Laboratory Balance	Mettler Model PE 360	Determines weight of materials.

An invoice is being sent to your accounts payable department. Samples are disposed of on the first Monday of every month after being retained a maximum of 30 days unless you direct us otherwise in writing. Please review the Terms & Conditions as stated on the inside back cover of this report that govern analysis work. Thank you for consulting Chemir/Polytech Laboratories, Inc. If you have any questions regarding this work, or if we can be of any further assistance, please call us at (314) 291-6620.

Chemir / Polytech Laboratories, Inc.

Shri Thanedar, Ph.D.

Vice President - Technology

Director - Materials Science

Project Chemist:

Lab Technician

ST:jh/Warren0799.doc/d1

Enclosure

TERMS & CONDITIONS

SERVICES

- Client acknowledges that CHEMIR/POLYTECH LABORATORIES, INC. ("CHEMIR/POLYTECH") performs analysis and testing services
 only as specified in writing by Client. Chemir/Polytech does not design, warrant, supervise or monitor compliance of products or services
 except as specifically agreed to in writing prior to testing and analysis. Client acknowledges that, by their very nature, analysis, testing
 and other Chemir/Polytech services are limited in scope and subject to expected measurement variability.
- Samples and portions thereof not destroyed in testing remain the property of the Client, are retained a maximum of 30 days, and thereafter may be disposed of or returned to Client, at Client's expense.
- 3. Unless otherwise specified therein in writing, nothing contained in the Reports of Chemir/Polytech shall be deemed to imply or mean that Chemir/Polytech conducts any quality control program for the Client to whom the report is issued.
- 4. Chemir/Polytech Reports are for the exclusive use of the Client to whom they are addressed. Reports and the name Chemir/Polytech, or its seals or insignia, are not to be used by or on behalf of Clients under any circumstances for any purpose whatsoever, including but not limited to use in advertising, publicity material or in any other manner without Chemir/Polytech's prior written approval.
- 5. Chemir/Polytech Reports apply only to the standards or procedures identified therein and to the sample(s) tested.
- 6. Chemir/Polytech shall retain copies of Reports for a period of five years after which such Reports will be destroyed.
- Unless specified in a Report in writing, the analysis and testing results are not indicative or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products.
- 8. Deformulation analysis of commercial products is provided for informational purposes only. Chemir/Polytech strongly recommends review of state and federal laws, trademarks, copyrights and patent situations by the Client prior to use of such information.
- Chemir/Polytech reserves the right to subcontract samples to other laboratories. If subcontracting is necessary, samples will be sent only
 to laboratories meeting our qualification requirements.

LIABILITY

- Chemir/Polytech is not an insurer or a guarantor. Chemir/Polytech represents that the Services shall be performed within the limits
 mutually agreed to, in writing, and in a manner consistent with the level of care and skill ordinarily exercised by other providers of similar
 services under similar circumstances. No other representations or warranties, express or implied, are included or intended in this
 agreement, or in any Report, opinion or document related to the Services provided hereunder.
- For the safety of our personnel, Client must advise us if samples are known or suspected to contain hazardous substances. Material Safety Data Sheets must be provided if available.
- 3. Client understands and agrees that Chemir/Polytech in entering into this Contract and by performing services hereunder does not assume, abridge, abrogate or undertake to discharge any duty or responsibility of Client to any other party or parties. No one other than Client shall have any right to rely on any Report. Client agrees, in consideration of Chemir/Polytech undertaking to perform the test(s) or program hereunder, to protect, defend, indemnify, save harmless and exonerate Chemir/Polytech from any and all claims, damages, including lost profits, expenses, including attorney's fees, either direct or consequential, for any and all injuries to persons, including the personnel of Chemir/Polytech, or property arising out of or in consequence of the performance of the testing hereunder and/or the performance of the products tested hereunder.
- 4. It is agreed that if Chemir/Polytech should be found liable for any losses or damages attributable to the services hereunder in any respect, its liability shall in no event exceed the amount of the fee paid by Client for such services and Client's sole remedy at law or in equity shall be the right to recover up to such amount. Client acknowledges and agrees that in no event will Chemir/Polytech be liable for consequential or incidental damages or expenses, including, but not limited to lost profits.
- 5. Whenever performance by either party is delayed or prevented by war, insurrection, fire or other casualty, strikes or embargoes, shortage of transportation facilities or any other similar or dissimilar causes, beyond the control of such party, such delay or prevention shall be excused and the time of performance hereunder extended for the duration of the causative factor.

PAYMENT

- 1. Client agrees to pay all invoices within 15 days of date issued.
- 2. In the event that payment is not received within 15 days of invoice date, Client agrees to pay a late payment charge on the unpaid balance equal to 1-1/2% per month.
- 3. All costs associated with compliance with any subpoena(s) for documents, testimony in court of law, or for any other purpose relating to work performed by Chemir/Polytech for Client, shall be paid by Client. Client shall also pay Chemir/Polytech's then existing standard fees for consulting, deposition and trial testimony and all expenses related there to.

MISCELLANEOUS

- This agreement and any and all claims and disputes hereunder or related thereto shall be governed by the internal laws of the State of Missouri. Chemir/Polytech and Client agree that exclusive jurisdiction and venue for any and all such claims and disputes shall be in St. Louis County, Missouri.
- In the event that Chemir/Polytech prevails in any dispute or claim, Client agrees that Client will pay any and all expenses, including attorney's fees, reasonably incurred in the prosecution or defense of such claim or dispute.
- The terms and conditions contained herein shall constitute the entire agreement between Chemir/Polytech and Client. Any conflicting terms contained in any order or acceptance submitted by Client shall be null and void.