



COPY

Alan Roberts  
Research & Special Projects Administration  
US Department of Transportation  
400 7th St. S.W.  
Washington, D.C. 20590

15 March 1993

Dear Mr. Roberts:

At the request of Mr. Gary Rosenfield, the president of Aerotech Inc. I am forwarding to you the results of some tests which were conducted by ISP Inc. on propellants which are also used by Aerotech in their products. These tests were conducted for the Safety Office at Phillips Laboratory, Kirtland AFB. The tests were conducted on January 7, 1993 at the APD Bomb Disposal Range and were witnessed by the following people:

Jim Wagman - Phillips Laboratory Safety Office, Kirtland AFB.  
Roger Payne - Commander District 5 NM State Police (head of State Police Bomb Disposal Unit)  
The Albuquerque Police Department Bomb Disposal Unit (3 officers)  
Jim Hanson - Engineer from The Core Group, Albuquerque, NM

The testing was conducted in agreement with the procedures defined in TB 700-2 "Department of Defense Explosives Hazard Classification Procedures".

Attached are the results of the tests. Attachment 1 shows the results of the tests for 8121 propellant (a.k.a. Aerotech "Blue Thunder"). Attachment 2 shows the results of the tests for 8225 propellant (a.k.a. Aerotech "White Lighting"). Attachment 3 shows the results for 8021D propellant (a.k.a. "Blackjack" and "Delay").

If you have any questions, please do not hesitate to contact the undersigned.

On another matter the Approvals Branch (Jim Jones, Carol Monroe et. al.) refuse to return my phone calls and ignore all inquiries about my letter directed to Jim Jones dated 16 November 1992 requesting clarification of DoT regulations on section 173.56(b)(1) and 173.56(b)(2)(i). Is there anything which I can do to get a reply?

Sincerely,

Daniel H. Meyer  
President  
ISP Inc.

Attachment 1

Test Date: 07 January 1993

Propellant Identity: 8121

Batch: ISP-P-8121-112392-1

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Detonation Test (#8 Cap):

	<u>Detonated</u>	<u>Burned</u>	<u>Fragmented</u>
Test 1	No	Yes	
Test 2	No	Yes	
Test 3	No	Yes	
Test 4	No	Yes	
Test 5	No	Yes	

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Ignition and Unconfined Burning Test:

	<u>Exploded</u>	<u>Average Burning Time</u>
One 2" cube	No	27 seconds
One 2" cube	No	25 seconds
Four 2" cubes	No	28 seconds

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Thermal Stability Test Phase 2: (see note 1)

<u>Detonated</u>	<u>Ignited</u>	<u>Decomposition</u>	<u>&gt;3 C Rise</u>	<u>Wt. Change</u>
No	No	No	No	0.00%

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Card Gap Test:

	<u>No. Cards</u>	<u>Results</u>
Test 1	0	Negative
Test 2	0	Negative
Test 3	0	Negative

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Note 1: Thermal stability tests were done at ISP Inc. facility in Las Vegas, NV.

Attachment 2

Test Date: 07 January 1993

Propellant Identity: 8225

Batch: ISP-P-8225-120192-1

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Detonation Test (#8 Cap):

	<u>Detonated</u>	<u>Burned</u>	<u>Fragmented</u>
Test 1	No	Yes	
Test 2	No	No	No
Test 3	No	No	No
Test 4	No	No	Yes
Test 5	No	No	No

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Ignition and Unconfined Burning Test:

	<u>Exploded</u>	<u>Average Burning Time</u>
One 2" cube	No	36 seconds
One 2" cube	No	46 seconds
Four 2" cubes	No	35 seconds

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Thermal Stability Test Phase 2: (see note 1)

<u>Detonated</u>	<u>Ignited</u>	<u>Decomposition</u>	<u>&gt;3 C Rise</u>	<u>Wt. Change</u>
No	No	No	No	0.00%

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Card Gap Test:

	<u>No. Cards</u>	<u>Results</u>
Test 1	0	Negative
Test 2	0	Negative
Test 3	0	Negative

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Note 1: Thermal stability tests were done at ISP Inc. facility in Las Vegas, NV.

Attachment 3

Test Date: 07 January 1993

Propellant Identity: 8021D

Batch: ISP-P-8021D-113092-1

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Detonation Test (#8 Cap):

	<u>Detonated</u>	<u>Burned</u>	<u>Fragmented</u>
Test 1	No	No	No
Test 2	No	No	No
Test 3	No	No	No
Test 4	No	No	No
Test 5	No	No	No

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Ignition and Unconfined Burning Test:

	<u>Exploded</u>	<u>Average Burning Time</u>
One 2" cube	No	43 seconds
One 2" cube	No	42 seconds
Four 2" cubes	No	57 seconds

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Thermal Stability Test Phase 2:

<u>Detonated</u>	<u>Ignited</u>	<u>Decomposition</u>	<u>&gt;3 C Rise</u>	<u>Wt. Change</u>
To be tested 20 March 1993				

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Card Gap Test:

	<u>No. Cards</u>	<u>Results</u>
Test 1	0	Negative
Test 2	0	Negative
Test 3	0	Negative

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