

## Combustible Dust – SAMPLE SUBMISSION FORM

PO#:	
Company Name:	
Contact Name:	Contact Phone:
Sample ID:	Contact Email:
Sample Weight:	Date:

- Particle Size Reduction (if requested)**
- Sieving only
  - Sieving and Milling (Not recommended for metals)
- Drying to less than 5 wt.%**

<b>Step #1:</b> <input type="checkbox"/> <u>Explosibility Screening Test (Go/No Go Test)</u> Test Methods: ASTM E1226	Determines if your material is explosible - Explosible means your dust is explosible in a dust cloud  <b>Material needed: At least 100 grams</b>
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<b>Step #2:</b> <input type="checkbox"/> <u>Explosion Severity Test (<math>K_{St}</math> and <math>P_{max}</math>)</u> Test Method: ASTM E1226 ( $K_{St}$ , $dP/dt_{max}$ , and $P_{max}$ )	Provides information for explosion protection by determining the maximum pressure output and maximum rate of pressure rise  <b>Material needed: At least 500 grams</b>
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<b>Step #3:</b> <input type="checkbox"/> <u>Minimum Ignition Energy (MIE)</u> <input type="checkbox"/> Electrostatic Hazards <input type="checkbox"/> Electrical/Electronic Hazards Test Method: ASTM E2019 ( <i>please indicate whether test will be performed with inductance (electrical/electronic hazard) or without inductance (electrostatic hazards)</i> )  <input type="checkbox"/> <u>Minimum Explosible Concentration (MEC)</u> Test Method: ASTM E1515	Provides explosion avoidance due to electrical or electrostatic hazards  <b>Material needed: At least 100 grams</b>  Provides explosion avoidance by determining the minimum amount of material in air needed for a reaction  <b>Material needed: At least 100 grams</b>
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### Optional Testing – Custom Test Selection (check individual tests below):

Select	Description	Useable Sample Needed	
		Grams	Lbs.
<input type="checkbox"/>	Minimum Ignition Temperature of a Dust Cloud (MIT) Test Method: ASTM E1491	100	0.25
<input type="checkbox"/>	Fire Risk Screening Test N1 Test (Combustibility) Test Methods: VDI2263 Part 1 and UN 4.1	300	0.75
<input type="checkbox"/>	Minimum Ignition Temperature of a Layer (LIT) Test Method: ASTM E2021	500	1
<input type="checkbox"/>	1-m <sup>3</sup> Challenge Test	6800	15

### Additional Testing to be Considered for Metals:

<input type="checkbox"/>	Combustibility Screening – Using ABC Fire Extinguisher Media Test Methods: VDI2263 Part 1 and UN 4.1		
<input type="checkbox"/>	Combustibility Screening – Using Water Test Methods: VDI2263 Part 1 and UN 4.1		
<input type="checkbox"/>	Dangerous When Wet Test Test Method: UN 4.3		
<input type="checkbox"/>	Volume Resistivity Test Test Method: ASTM D-257		
<input type="checkbox"/>	Explosibility Screening (Go-No Go) Test Methods: VDI2263 Part 1 and ASTM E1226		

### Shipping Instructions:

- Include the MSDS for each sample in the box
- Clearly label each sample container
- Include one completed SAMPLE SUBMISSION form for each sample
- Please be sure to provide sufficient sample quantity for the requested tests
- Please ensure samples are packaged in a secure, air-tight container

### Ship To Address:

AST Engineering Inc.  
 DHA Samples  
 3435 Landmark Road  
 Burlington, Ontario L7M 1T4