



## Material Safety Data Sheet (MSDS):

## Model Rocket Motors (A, B, C, D and Micro Maxx)

QUEST AEROSPACE INC.  
PO Box 2976, Pagosa Springs, CO 81147-2976  
Phone: 970-264-4050  
Fax: 970-264-9330

24-Hour HAZMAT: (800) 424-9300

### 1.1 PRODUCT IDENTIFICATION

Model Rocket Motor and Toy Propellant Device (USPS)

Basic Description: Model Rocket Motor, NA0323 or Articles Pyrotechnic, UN0432

### 1.2 HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Model rocket motors consist of a pyrotechnic composition (Black powder consisting of 74%  $\text{KNO}_3$  as an oxidizer and a combination of 15.6% C and 10.4% S as a fuel plus binder) encased in a paper tube capped at each end with inert clay material. No chemical composition is exposed during normal handling and storage. All percentages are by weight.

The U.S. Department of Transportation (D.O.T.) classifies these items as UN 1.4S explosives. The D.O.T. classification reference numbers that may apply include the following: EX-9605002, EX-9810083, EX9912089, EX-002121, EX-0103208, EX2007040111, EX2009060032

### 1.3 PHYSICAL / CHEMICAL CHARACTERISTICS

Physical State: Solid

Appearance and Odor: Circular paper tube ranging from 5mm to 18mm in diameter with sealed endcaps of inert clay material.  
Odor: slight to none.

Boiling Point: Decomposes

### 1.4 FIRE AND EXPLOSIVE HAZARD DATA

Auto ignition temp: 550 Degrees F.

Extinguishing media: Water only

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#### 1.4 FIRE AND EXPLOSIVE HAZARD DATA

(Continued from previous page)

Explosion: None anticipated

##### Special Fire Procedure:

Fire Action: Do not use suffocation methods – devices contain their own oxygen. If a large number of motors are involved, prevent the spread of fire and allow to burn.

Unusual Fire Hazards: Motors may fly about in the event of fire.

#### 1.5 REACTIVITY DATA

Conditions to avoid: Heat

Incompatibility:  
(Material to avoid) Water: Exposure to water will cause motors to deteriorate

Hazardous Decomposition  
or by-products: Smoke, nitrogen oxides and sulfur oxides may be produced in a fire.

#### 1.6 HEALTH HAZARD DATA

Exposure to finished items does not pose any known health hazard

#### 1.7 EMERGENCY FIRST AID PROCEDURES

Ingestion: If swallowed, induce vomiting. Call a physician

#### 1.8 SPILL OR LEAK PROCEDURES

Do not smoke or provide any open flames in vicinity of spilled material. Carefully pick up and place items in cardboard carton. Sweep up any exposed chemical composition with a natural fiber brush.

Waste Disposal Method: Dispose of by soaking in water.

#### 1.9 PRECAUTIONS FOR SAFE HANDLING AND STORAGE

Avoid smoking, open flames or high temperatures (exceeding 120 degrees Fahrenheit).

Keep shipping cartons cool and dry.

End of Section 1.9

## 2.0 SPECIAL PROTECTION INFORMATION

Ventilation Requirements: None. Do not use motors indoors.

Specific Personal Protective Equipment:

Respiratory: None required when handling finished items.

Skin contact: None required when handling finished items.

Other Handling and Storage Requirements:

Store motors away from sources of heat and highly flammable materials. Do not smoke in the vicinity of motors.

End of Section 2.0

End of Material Safety Data Sheet

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