



**MATERIAL SAFETY DATA SHEET &  
EMERGENCY RESPONSE INFORMATION**

**Revised: 4/27/04**

**Manufacturer:** AeroTech Division of RCS Rocket Motor Components, Inc.

**Address:** 2113 W. 850 N. St.  
Cedar City, UT 84720

**Emergency Response  
Telephone Number:** (800) 535-5053 (Domestic), (352) 323-3500 (Int'l)

**SECTION I - PRODUCT IDENTIFICATION**

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**Product Name:** Model Rocket Motor

**Synonyms:** Hobby Rocket Motor

**Basic Description:** Flammable solids, organic, n.o.s., 4.1, UN1325, PG II  
(per DOT-E 7887)

**Technical Name:** Model rocket motors

**SECTION II - HAZARDOUS INGREDIENTS**

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Model rocket motors contain propellant and delay charge modules which consist primarily of ammonium perchlorate (NH<sub>4</sub>ClO<sub>4</sub>) dispersed in synthetic rubber. Model rocket motor ejection charges contain small quantities of black powder.

**SECTION III - PHYSICAL DATA**

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**Boiling Point Range:** Decomposes

**Specific Gravity:** Propellant ranges from .058 to .076 lb/cubic inch

**Appearance:** Black plastic cylinders

**Odor:** None

**Physical State:** Solid

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

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<b>Autoignition Temp.:</b>	550 Deg. F
<b>Flammability Class:</b>	Flammable
<b>Extinguishing Media:</b>	Water only
<b>Special Fire Proc.:</b>	<b>Model rocket motors may present a propulsive hazard.</b> Protect against toxic fumes.
<b>Unusual Fire Hazard:</b>	<b>Model rocket motors may become propulsive in a fire.</b> Burning propellant gives off hydrogen chloride gas.
<b>Unusual Explosion Hazard:</b>	None Anticipated

## SECTION V - HEALTH HAZARD DATA

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### Effects of Overexposure

**Acute:** None Known.

**Chronic:** None Known.

### Overexposure -

**Eyes:** Ammonium perchlorate is a mild irritant to the skin, eyes, mucous membranes and the digestive tract.

**Skin:** Ammonium perchlorate is a mild irritant to the skin, eyes, mucous membranes and the digestive tract.

**Inhalation:** No information available.

**Ingestion:** Ammonium perchlorate is a mild irritant to the skin, eyes, mucous membranes and the digestive tract.

## SECTION VI - EMERGENCY FIRST AID PROCEDURES

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<b>Ingestion:</b>	If swallowed, induce vomiting. Call a physician.
<b>Inhalation:</b>	Avoid breathing exhaust fumes.
<b>Skin Contact:</b>	For mild exhaust burns use a first aid burn ointment. For severe burns see a physician immediately.
<b>Eye Contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

## SECTION VI - EMERGENCY FIRST AID PROCEDURES (Cont'd)

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**Note to Physician:** Chemical of exposure is ammonium perchlorate, a mild gastric irritant.

## SECTION VII - REACTIVITY DATA

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**Conditions to Avoid:** Heat (propellant autoignites at 550 Deg. F).

**Incompatibility:** Acids

**Haz. Decomp. Products:** Oxides of carbon, hydrogen chloride gas

## SECTION VIII - SPILL OR LEAK PROCEDURES

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**Spills:** Replace model rocket motors in boxes and seal securely.

**Waste Disposal Method:** Pack motor firmly in hole in ground with nozzle pointing up. Ignite motor electrically and wait 5 minutes before approaching. Dispose of spent motor in inert trash.

## SECTION IX - SPECIAL PROTECTION INFORMATION

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### Ventilation

**Requirements:** None. Do not use model rocket motors indoors.

### Specific Personal Protective Equipment

**Respiratory:** None. Avoid breathing exhaust fumes.

### Other Handling and Storage Requirements:

Store model rocket motors away from sources of heat and highly flammable materials.