



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

**Revised: 3/1/05**

**Manufacturer:** Industrial Solid Propulsion Division  
RCS Rocket Motor Components, Inc.

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

**Emergency Response  
Telephone Number:** (800) 535-5053

**SECTION I - PRODUCT IDENTIFICATION**

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**Product Name:** ISP-P-8223AL Propellant

**Synonyms:** None

**Basic Description:** Substances, explosive n.o.s., 1.3C, UN0477, PG II

**SECTION II - HAZARDOUS INGREDIENTS**

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ISP-P-8223AL propellant consists primarily of Ammonium Perchlorate (NH<sub>4</sub>ClO<sub>4</sub>) dispersed in synthetic rubber.

**SECTION III - PHYSICAL DATA**

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**Boiling Point Range:** Decomposes

**Specific Gravity:** .059 lb/cubic inch

**Appearance:** Yellow-orange solid

**Odor:** Slight

**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>	Fire action: Water. Protect against toxic fumes.
<b>Unusual Fire Hazard:</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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**Ingestion:** If swallowed, induce vomiting. Call a physician.

**Inhalation:** Avoid breathing exhaust fumes.

**Skin Contact:** For mild exhaust burns use a first aid burn ointment. For severe burns see a physician immediately.

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

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**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**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 propellant grains in boxes and seal securely.

**Waste Disposal Method:** Ignite propellant electrically from a safe distance.  
Propellant will burn until consumed

## SECTION IX - SPECIAL PROTECTION INFORMATION

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**Ventilation Requirements:** None. Do not ignite propellant indoors.

### Specific Personal Protective Equipment

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

### Other Handling and Storage Requirements:

Store ISP-P-8223AL propellant away from sources of heat and highly flammable materials.