

## MATERIAL SAFETY DATA SHEET

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**MANUFACTURER:** Maxam North America, Inc.  
6975 South Union Park Center, Suite 525  
Salt Lake City, Utah 84047

**EMERGENCY CONTACT:** (801) 233-6000 (MAXAM), (800) 424-9300 (CHEMTREC)  
(304) 836-5646 (MAXAM Plant)  
(800) 244-5004, ERAP 2-1470 Canada only

**TRADE NAME:** EMGEL® PS, RIOSPLIT™ EF

**CAS NUMBER:** N/A

### SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

*Exposure Limits (mg/m<sup>3</sup> unless noted) %w/w*

Component	CAS No.	ACGIH TLV	OSHA PEL	% w/w Typical
Ammonium Nitrate	6484-52-2	N/A	N/A	50-55
Sodium Perchlorate	7791-07-3	N/A	N/A	5-15
Aluminum	7429-90-5	10	N/A	4-6
Pentaerythritol tetra-nitrate (PETN)	78-11-5	N/A	N/A	1-5

### SECTION 3 – HAZARDS IDENTIFICATION

**US OSHA HAZARD COMMUNICATION STANDARD:** Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined to be hazardous.

**EFFECTS OF OVEREXPOSURE:** Respiratory irritation, dizziness, nausea, vomiting, tachycardia. Prolonged, repeated skin contact may result in skin irritation or more serious skin disorders. Toxic effects are unlikely to occur if good personal hygiene is practiced.

**EMERGENCY RESPONSE DATA:** Waxy consistency, light gray color with ammonium nitrate prill visible in the mixture. Packaged in a white or yellow polyethylene cartridge.

**DOT EMERGENCY RESPONSE GUIDE NO.:** 112

### SECTION 4 – FIRST AID AND MEASURES

**EFFECTS OF OVEREXPOSURE:** Unknown

**EMERGENCY AND FIRST AID PROCEDURES:**

## MATERIAL SAFETY DATA SHEET

---

*INHALATION* – N/A

*INGESTION* -Do not induce vomiting. Drink large amounts of water or milk. Give liquid activated charcoal and seek medical attention.

*SKIN* -Wash effected area with soap and rinse with large amounts of water. Launder contaminated clothing before reuse.

*EYES* -Flush with copious amounts of clean or buffered water for at least 15 minutes. Seek medical attention immediately.

### **X SECTION 5 – FIRE-FIGHTING MEASURES**

*FLASH POINT*: Not established

*LEL*: Not Available

*EXTINGUISHING MEDIA*: Water -Deluge with water to cause a mass cooling.

*UNUSUAL FIRE & EXPLOSION HAZARDS*: System contains its own oxygen and fuel. May explode when subject to extreme heat or shock. Will release NOx .

*SPECIAL FIRE FIGHTING PROCEDURES*: DO NOT FIGHT AN ESTABLISHED FIRE. Clear area and allow it to burn out.

### **X SECTION 6 – ACCIDENTAL RELEASE MEASURES**

*STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED*: Gather up spilled cartridges and wash any contaminated area with water

*WASTE DISPOSAL METHOD*: Place down a blast hole prior to detonation; to be utilized as part of the blast. May be burned in a shallow layer on barren ground in accordance with federal, state and local regulations.

### **X SECTION 7 – HANDLING AND STORAGE**

*DURING HANDLING AND STORAGE*: Comply with regulations and precautions for "Explosive, Blasting, Type E, 1.1D" classification by regulatory agencies. Wear chemical resistant gloves and boots.

*OTHER PRECAUTIONS*: May cause shrinkage of leather shoes and gloves, avoid contact; slightly corrosive to ferrous metals. Comply with "Warnings and Instructions" (Safety Library Publication No. 4) of Institute of Makers of Explosives when handling, transporting and storing explosives.

### **X SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION**

*RESPIRATORY*: Not required

## MATERIAL SAFETY DATA SHEET

*VENTILATION:* Ambient

*GLOVES:* Chemical resistant

*EYE:* Safety Glasses or Goggles

*OTHER PROTECTIVE EQUIPMENT:* None required.

*THRESHOLD LIMIT VALUE:* Nitrogen dioxide = 3 ppm, Nitrous oxides = 25 ppm

### **X SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

*BOILING RANGE:* N/A

*MELTING POINT:* N/A

*VAPOR DENSITY:* N/A

*DENSITY:* 1.20-1/26

*EVAPORATION RATE:* N/A

*PERCENT VOLATILE BY VOLUME:* N/A

*SOLUBILITY IN WATER:* No

*APPEARANCE AND ODOR:* Waxy consistency, light gray color with ammonium nitrate prill throughout mixture. Packaged in 1.0 to 3.5 inch diameter polyethylene cartridges with detonating cord attached externally. Odor of wax and mineral oil.

### **X SECTION 10 – STABILITY AND REACTIVITY**

*STABILITY:* Stable

*CONDITIONS TO AVOID:* High heat in a confined area.

*HAZARDOUS DECOMPOSITION PRODUCTS:* NO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub>, Ammonia

*HAZARDOUS POLYMERIZATION:* Will not occur

### **X SECTION 11 – TOXICOLOGICAL DATA**

*ACUTE TOXICITY:* Not established

### **X SECTION 12 – ECOLOGICAL INFORMATION**

*ENVIRONMENTAL FATE AND EFFECTS:* Not established

**X**

## MATERIAL SAFETY DATA SHEET

### SECTION 13 – DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:** The contaminated material is to be placed down a borehole to be utilized as part of the blast. If local regulations allow, it may be burned in a shallow layer on barren ground. Contact the manufacturer for safe instructions.

**RCRA INFORMATION:** Any other form of disposal of this product may be subject to RCRA regulations (40 CFR 261) due to the characteristic(s)/chemical(s) listed in section 2.

### X SECTION 14 – TRANSPORTATION INFORMATION

**REGULATORY CLASSIFICATIONS:**

**USA DOT:** Blasting Explosive

**OSHA:** Blasting Explosive

**MSHA:** Blasting Explosive

**USA DOT:**

<b>SHIPPING NAME:</b>	Charges, Explosive, Commercial without Detonator, UN0442
<b>HAZARD CLASS AND DIV.:</b>	1.1D
<b>ID NUMBER:</b>	UN0442
<b>APPROVAL No.:</b>	EX1995060017
<b>PACKING GROUP:</b>	II
<b>DANGEROUS WHEN WET:</b>	No
<b>POISON:</b>	No
<b>LABEL(S):</b>	Explosives 1.1
<b>PLACARD(S):</b>	Explosives 1.1
<b>PRODUCT RQ:</b>	N/A
<b>ERG NUMBER:</b>	112

**CANADA:** Class 3.2 Explosive, Blasting Type E, UN0241, 1.1D, PG II

### X SECTION 15 – REGULATORY INFORMATION

**GOVERNMENTAL INVENTORY STATUS:** All components comply with TSCA, and EINECS/ELINCS.

**US SUPERFUND AMENDMENTS AND REAUTHORIZAITON ACT (SARA) TITLE III:** This product is considered an "Extremely Hazardous Substance." This product contains Ammonium Nitrate which is reportable to SARA (313) Toxic Release Program.

### X SECTION 16 – OTHER INFORMATION

This product meets UN standards for blasting explosives as outlined in TDG Manual of Tests and Criteria.