

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 PHONE NUMBER: (801) 233-6000 (MAXAM), (800) 424-9300 (CHEMTREC)
(304) 833-6271 (MAXAM Plant)

TRADE NAME: EMGEL® 600 HE, B & LD, RIOHIT™ 600 HE, B & LD

CAS NUMBER: N/A

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS No.</u>	<u>Exposure Limits (mg/m³ unless noted)</u>		<u>% w/w Typical</u>
		<u>ACGIH TLV</u>	<u>OSHA PEL</u>	
Ammonium Nitrate	6484-52-2	N/A	N/A	50 - 55
Hexamine nitrate	18423-20-6	N/A	N/A	11 - 15
Aluminum	7429-90-5	10	N/A	0 - 6

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, white or light gray color; may have 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 MEASURES

EFFECTS OF OVEREXPOSURE: Unknown

EMERGENCY AND FIRST AID PROCEDURES:

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.

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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 NO_x.

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

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.

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.

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.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

RESPIRATORY: Not required

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

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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. Odor of wax and mineral oil.	
SECTION 10 - STABILITY AND REACTIVITY	
STABILITY: Stable	
CONDITIONS TO AVOID: High heat in a confined area.	
HAZARDOUS DECOMPOSITION PRODUCTS: NO ₂ , NO _x , CO ₂ , Ammonia	
HAZARDOUS POLYMERIZATION: Will not occur.	
SECTION 11 - TOXICOLOGICAL DATA	
ACUTE TOXICITY: Not Established	
SECTION 12 - ECOLOGICAL INFORMATION	
ENVIRONMENTAL FATE AND EFFECTS: Not Established	
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.	
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.	

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SECTION 14 - TRANSPORT INFORMATION

Regulatory classifications are as follows:

USA DOT: Blasting Explosive **OSHA:** Blasting Explosive **MSHA:** Blasting Explosive

USA DOT:

SHIPPING NAME: Explosive, blasting, type E, UN0241

HAZARD CLASS AND DIVISION: 1.1D

ID NUMBER: UN0241

REFERENCE No.: EX2008010391

PACKING GROUP: II

DANGEROUS WHEN WET: No

POISON: No

LABEL: Explosives 1.1

PLACARD: Explosives 1.1

PRODUCT RQ: N/A

ERG NUMBER: 112

Canada: Class 2

International: Explosive, blasting, type E, UN0241, 1.1D, PG II

SECTION 15 - REGULATORY INFORMATION

Governmental Inventory Status: All components comply with TSCA, and EINECS/ELINCS.

US Superfund Amendments and Reauthorization Act (SARA) Title III: This product is considered an "Extremely Hazardous Substance". This product also contains Ammonium Nitrate which is reportable to SARA (313) toxic release program.

SECTION 16 - OTHER INFORMATION

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