



# MATERIAL SAFETY DATA SHEET

## SECTION I - PRODUCT IDENTIFICATION

**Product Name:** 25' & 30' MINES  
**Product Use:** Pyrotechnic for technical use  
**WHMIS/OSHA Class:** Not controlled  
**T.D.G./DOT Classification:** 1.4G, UN0431 (EX2007010218)  
**Manufacturer/Supplier:** Le Maitre Ltd  
**Address:** Fourth Drove, Peterborough  
 Cams, PE1 5UR, England  
**Telephone:** USA (702) 843 5080  
**Emergency Phone Number:** CHEM-TEL USA (800) 255-3924

## SECTION II - INGREDIENTS

<u>Ingredients</u>	<u>CAS#</u>	<u>ACGIH-TLV</u>	<u>LC<sub>50</sub></u>	<u>LD<sub>50</sub></u>
4FA (explosive blackpowder)		n/k	n/k	n/k
Titanium (fuel)	7440-32-6	n/k	n/k	n/k
Potassium Perchlorate (oxidiser)	7778-74-7	n/k	n/k	n/k
Barium nitrate (oxidiser)	10002-31-8	n/k	n/k	n/k
Dextrin (fuel)	9004-53-9	n/k	n/k	n/k
Magnesium powder (fuel)	7439-95-4	n/k	n/k	n/k
Strontium Nitrate (oxidiser)	10042-76-9	n/k	n/k	n/k
Calcium Oxalate (oxidiser)	5794-28-5	n/k	n/k	n/k
Bismuth oxide (oxidiser)	1304-76-3	n/k	n/k	n/k
Copper oxide (oxidiser)	1317-38-0	n/k	n/k	n/k
PVC (fuel)	9002-86-2	n/k	n/k	n/k
Sulfur (fuel)	7704-34-9	n/k	n/k	n/k

## SECTION III - PHYSICAL DATA

**Boiling Point (deg C):** Not available  
**Vapour Pressure (mmHg @ 20°C):** Not available  
**Vapour Density (Air = 1):** Not available  
**Solubility in Water:** Perchlorate soluble  
**Physical State:** Powder  
**Appearance and Odour:** Coloured stars and blackpowder granules within a sealed cardboard tube.

**Specific Gravity (H<sub>2</sub>O = 1):** Not available  
**% Volatile (Wt %):** Not available  
**Evaporation Rate (Water = 1):** Not available  
**pH:** Not known  
**Viscosity:** Not available  
**Odour Threshold (ppm):** Not available

## SECTION IV - FIRE AND EXPLOSION DATA

**Flammability:** Flammable  
**Flash Point (deg C, TCC):** Not available  
**Hazardous Combustion Products:** Not available  
**Auto ignition Temperature (deg C):** Not available.  
**Means of Extinction:** Fight fire with water.  
**Special Fire Hazards:** Localised effect. Hazardous effects normally confined to the package unless the package has been degraded by fire, in which case not such that fire fighting is hindered.

**LEL:** Not available      **UEL:** Not available

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**SECTION V - REACTIVITY DATA**  
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**Conditions for Chemical Instability:** Excessive humidity.  
**Incompatible Materials:** Acids.  
**Reactivity, and Under What Conditions:** Not available  
**Hazardous Decomposition Products:** Not available.

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**SECTION VI - TOXICOLOGICAL PROPERTIES**  
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**Route of Entry:** Eye, inhalation.  
**EFFECTS OF ACUTE EXPOSURE:**  
**Eye:** May cause irritation.  
**Inhalation:** May cause respiratory irritation, difficulty in breathing, headaches, nausea and vomiting.. Perchlorate absorption can cause methemoglobinemia.  
**Irritancy :** Non-hazardous.  
**Respiratory Tract Sensitization:** No data available.  
**Carcinogenicity:** No data available.  
**Teratogenicity: Reproductive Effects:** No data available.  
**Mutagenicity:** No data available.  
**Synergistic Materials:** Not available.

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**SECTION VII- PREVENTATIVE MEASURES**  
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**Gloves:** Cotton or leather recommended.  
**Eye Protection:** Safety glasses recommended.  
**Respiratory Protection:** (If used in enclosed place with no ventilation) full-face respirator.  
**Other Protective Equipment:** As required by employer code.  
**Engineering Controls:** General ventilation normally adequate.  
**Leak and Spill Procedure:** No smoking. No naked flames. Sweep or pick up articles. Swill down spillage area with water.  
**Waste Disposal:** Pierce cap whilst holding underwater. Shake to allow water entry. Leave outside for 48 hours away from ignition sources. Review federal, provincial and local government requirements prior to disposal.  
**Storage & Handling Requirements:** Store in cool, dry conditions. Keep area clean & employ good working practices.

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**SECTION VIII - FIRST AID**  
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**Eye:** Immediately flush with water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention if irritation develops.  
**Skin:** Not a normal route of harmful exposure. Flush with water. Wash thoroughly with soap and water. Obtain medical attention if irritation develops.  
**Inhalation:** Not a normal route of harmful exposure. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.  
**Ingestion:** Do not induce vomiting. Rinse mouth with water, then drink one glass of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, is rapidly losing consciousness or is convulsing.

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**SECTION IX - PREPARATION INFORMATION**  
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**Date:** 16th December 2013 **MSDS Prepared by:** Le Maitre Ltd.  
**Telephone:** UK +44 (0) 1733 346824 **Current MSDS at** <http://www.lemaitreusa.com>

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