



# PRODUCT INFORMATION BROCHURE

1.1D

## EMULEX 1



**Emulex 1** is a detonator sensitive emulsion with an excellent combination of velocity of detonation and good gas generation characteristics that can be used as column loads or as primers for blasting agents

### ADVANTAGES

- High energy allows an extended drilling pattern for more economical blasting cost.
- Develops excellent gas volume for heave displacement.
- Good borehole coupling characteristics when the diameter of product applied is matched to the dimensions of the blast hole.
- Excellent water resistance.

## PRODUCT OVERVIEW

### TECHNICAL DESCRIPTION

Emulex 1 is a detonator-sensitive emulsion. Emulex 1 is packaged in plastic film and plastic tube.

### APPLICATION RECOMMENDATIONS

- Emulex 1 can be used in surface and underground mining, quarries and construction work applications when blasting final walls and slopes.
- Not for use in hazardous environments where flammable gases or dust may exist.
- Austin Powder Mexico accepts no responsibility for any loss or liability arising from use of the product in ground containing pyritic or other reactive material.
- Lower temperature limit -15 °C - Upper temperature limit +60 °C.

### PRIMING

When priming Emulex 1 the use of a high strength detonator is required (minimum 640 mg PETN).

**PROPERTIES**

Properties		Value
Density [g/cc]		1.12 (Ø < 50 mm / 2 inches)
		1.16 (Ø < 50 mm) / 2 inches)
Gas Volume [l/kg]		1,023
Relative Weight Strength [ANFO=100] <sup>(1)</sup>		86
Relative Bulk Strength [ANFO=0.82 g/cm <sup>3</sup> ] <sup>(1) ‡</sup>		118
Fume Class		1
Velocity of detonation (confined) <sup>(2)</sup>	[ft/s]	16,400
	[m/s]	5,000

Notes:

(1) Theoretical values based on Austin modeling which assumes ideal detonation. Values calculated with other codes may differ.

(2) The velocity of detonation will depend on application, diameter and confinement.

‡ Energy values are calculated using Explo 5, a thermo-dynamic computer code employed by Austin Powder Company. Other computer codes may give different values. ANFO = 100 @ 0.82 g/cc.

**STANDARD PACKAGING**

Cartridge Type	Cartridge Type		Cartridge Weight		Case Count 55 lb/25kg
	[in]	[mm]	[lb]	[kg]	
Plastic Film	1 x 8	25 x 200	0.271 – 0.255	0.123 – 0.116	203 – 215
	1 x 16	25 x 400	0.540 – 0.511	0.245 – 0.232	102 – 108
	1 x 39	25 x 1000	1.311 – 1.252	0.595 – 0.568	42 – 44
	1 ¼ x 16	32 x 400	0.835 – 0.787	0.379 – 0.357	66 – 70
	1 ¼ x 39	32 x 1000	1.968 – 1.836	0.893 – 0.833	32
	1 3/8 x 37	35 x 940	2.204	1	25
	1 ½ x 8	38 x 200	0.599 – 0.562	0.272 – 0.255	92 – 98
	1 ½ x 16	38 x 400	1.197 – 1.148	0.543 – 0.521	46 – 48
	1 ½ x 39	38 x 1000	3.064 – 2.755	1.390 – 1.250	18 – 20
	2 x 8	50 x 200	1.102	0.5	50
	2 x 16	50 x 400	2.204	1	25
	2 ½ x 16	65 x 400	3.672	1.666	16
	3 x 8	75 x 200	2.204	1	25
	3 x 16	75 x 400	5.011	2.273	11
	3 ½ x 16	90 x 400	6.889	3.125	8
	4 x 8	100 x 200	4.592	2.083	12
4 x 16	100 x 400	9.186	4.167	6	
4 x 24	100 x 600	13.778	6.25	4	
Plastic Tube	5 x 24	127 x 600	18.371	8.333	3

Notes:

All dimensions and weights are nominal. Other sizes are available upon request.

**SHELF LIFE, STORAGE & DISPOSAL**

- Store in accordance with all applicable local, state, provincial, and federal laws.
- The disposal of explosives needs to comply with local and national laws. Contact Austin Powder with disposal questions.
- One year from the date of manufacture under good storage conditions.

**TRANSPORT - UN CLASSIFICATION**

Shipping Name: Explosive, Blasting, Type E  
 Class & Division: 1.1D  
 ID Number: UN0241

**US DOT REFERENCE NUMBER**

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**Our Mission is to improve the world we live in through the safe and responsible use of explosives.**