EBAD™
Ensign-Bickford Aerospace & Defense

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HELIX™- High Energy Liquid Explosive

HELIX™ High Energy Liquid Explosive is a powerful and versatile liquid explosive which eliminates the logistical difficulties usually encountered in shipping and storing high explosives. HELIX™ is sold as two components, the liquid and the activator, each of which can remain in long term storage. When mixed, HELIX™ is a detonator sensitive, high explosive with high gas volume, high bulk energy and consistent detonating velocity.

Rev. 1

APPLICATION:

- Breaching
- Explosive ordnance disposal
- General demolition
- IED defeat

KEY FEATURES:

- Non-explosive until mixed
- Mixes and arms instantly
- Easy to use
- Adaptable
- Non-explosive shipping and storage classification
- Reduced logistics cycle
- Ready to ship

PROPERTIES:

- Velocity: 6,400 m/s (21,000 f/s)
- Density: 1.3g/cc
- High bulk energy
- Thermally stable to 167°F (75°C)
- Low sensitivity to friction, impact and electrostatic discharge (ESD)

HELIX™ Liquid:
Flammable Liquid
UN1309, 4.1

HELIX™ Activator:
Flammable Solid
UN1309, 4.1

HELIX™- HIGH ENERGY LIQUID EXPLOSIVE

BINARY HELIX™ LIQUID & ACTIVATOR PLASTIC CONTAINERS	CONTAINER SIZE (NOMINAL)	NET EXPLOSIVE WEIGHT (NOMINAL) lb	kg
Small	8" x 1.38" (20.25 cm x 3.5 cm)	0.4	0.20
Medium	0.4 Gallon (1.5 Liters)	3	1.36
Large	1 Gallon (3.75 Liters)	10	4.5

EBA&D is able to tailor binary portions to meet most operational requirements.

OPERATION:

HELIX™ High Energy Liquid Explosive is supplied as a two component system. The flammable liquid and flammable solid are combined and mixed to form the high explosive formulation ready for use. HELIX™ is sensitive to No. 8 strength detonators at ambient conditions as well as 50 g/ft (10 g/m) detonating cord. HELIX™ can also be supplied in breaching frames where only the flammable liquid needs to be added.

HELIX™ is suitable for use and can be utilized in multiple end items such as shaped charges, bulk charges, disrupters and common demolition configurations.

The liquid and the activator

HELIX™
Explosively Formed Projectile (EFP)

Function

Post Function

ENSIGN-BICKFORD AEROSPACE & DEFENSE COMPANY
640 HOPMEADOW STREET, P.O. BOX 429, SIMSBURY, CT 06070, USA www.EBAD.com

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