

Emuldyne

(Small Diameter Emulsion Explosive)

Explosives Division of GULF OIL Corporation Ltd. manufactures **Emuldyne**, a small diameter emulsion explosive.

Emulsion explosives are new generation explosives, as they exhibit 'near-ideal' detonation characteristics among present commercial explosives. In an emulsion explosive, the oxidizer and fuel ingredients are in liquid form. The chemistry and rheology of emulsions result in their higher performance compared to other commercial explosives. Emulsion explosives also exhibit excellent water resistance and reliable performance in low temperature conditions.

Emuldyne is a water-in-oil type emulsion explosive, in which the oxidizers are dispersed as micro droplets in a continuous and thin layer of fuel (oil). This arrangement results in a close and intimate contact of ingredients present, leading to a high order detonation reaction during their usage resulting in higher velocity of detonation and higher energy release.

Emuldyne is a high strength, cap-sensitive cartridge emulsion explosive suitable for use in most types of blasting applications involving small and medium diameter drillholes of 32 mm to 50 mm. Its high strength and high velocity of detonation ensure good fragmentation in hard strata.

Emuldyne is highly suitable for carrying out blasting operations in hard rocks, in various types of mining and civil construction work such as quarrying, general surface blasting applications, tunneling, underground metal mining and secondary blasting. It has excellent water resistance and suitable for use in watery drillholes.

Consistency of **Emuldyne** enables facile cutting of cartridges without causing any spillage of explosive material. It is easy to handle and does not pose any difficulty in loading upward facing drillholes. The consistency of **Emuldyne** allows tamping, resulting in better borehole coupling and higher charge density. It also ensures that the sensitivity and strength properties are retained when stored for long periods.

Special Features

- Does NOT contain any explosive ingredients.
- Does NOT contain any headache causing ingredients.
- Relatively insensitive to accidental initiation due to impact, friction and fire. Hence, very safe during handling, usage, transportation and storage.
- High strength and high velocity of detonation (VOD) ensure good blast results.
- Excellent water resistance - can be used in watery boreholes.
- Excellent fume characteristics - generates very low volume of toxic or after-blast fumes.
- Good consistency eliminates possibility of leakage during the recommended shelf life. Upon long storage, product becomes innocuous and thus safe.

Emuldyne is available in paper cartridges, in blow-moulded tubes fitted with caps or in polythene film and available in cartridge diameter of 25 mm, 32 mm and 40 mm. Cartridges of higher diameter are available against specific order. Contact manufacturer for details.

Specifications

Classification	Class - 2
Appearance	Grease/Putty like consistency
Sensitivity	Cap-sensitive at + 5° C
Density (grams/cc)	1.10 ± 0.05 g/cc
Velocity of Detonation (in 32 mm diameter, unconfined)	4200 ± 500 m/sec
Water resistance	Excellent. Recommended for use in wet drillholes
Type of packing	Paper cartridge / Blow Moulded Tubes with caps/ Polythene film cartridges
Cartridge diameter and weight	25 mm x 125 grams 32 mm x 200 grams 40 mm x 300, 715 grams
Storage Stability (Shelf life)	6 months
Product application	Blasting hard strata in mining & civil construction, quarrying, general blasting applications, tunneling, stoping in underground metal mines



Contact Information

For more information, please contact:



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Features and specifications mentioned in this brochure are subject to change due to continuous improvements through research and development.

Packaging

The explosive cartridges are placed in polythene bags and packed in a corrugated fiber board case. Each case contains 25 kg of explosive. Markings on case indicate product name, manufacturer's name, cartridge size & weight, batch number, case number, date of manufacture, net weight and gross weight.

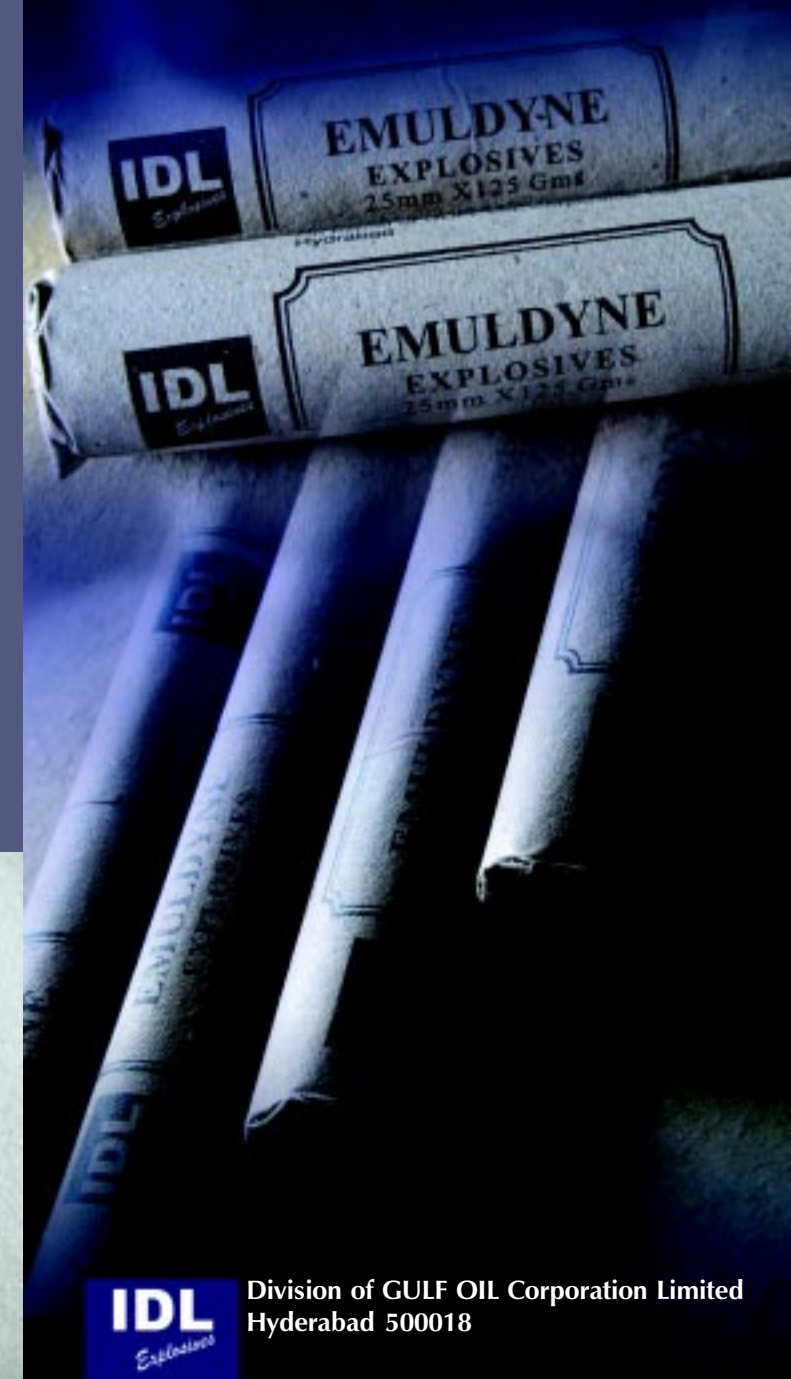
Precautions

- Do NOT subject explosives and detonators to impact, friction or fire.
- NEVER force a detonator into explosive cartridge. Always use pricker made of non-sparking material to pierce the wrapper while priming.
- Do NOT attempt to alter the composition of the explosive.
- Do NOT tamp the primer cartridge, as it contains a detonator.
- During charging, ensure cartridges are charged in a continuous column in the drillhole.
- In below ground applications, ensure adequate dilution of blast fumes before entering the work area.
- Do NOT carry out charging of explosives during an approaching storm and lightning activity in the blast area.
- Vacate the blast area and resume operations only after the storm has passed.
- Do NOT attempt to fight explosive fires.

Statutory Classification and Shipping Information

Petroleum & Explosives Safety Organization (PESO), Government of India	Class 2
IMDG Classification:	
Class	1
Division	1.1
Group	D
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