Detaprill®

Prilled Ammonium Nitrate

Technical Information

Description

Detaprill is a porous prilled form of ammonium nitrate. The prills are uniform in size and readily absorb fuel oil, ensuring effective mixing with other blasting agent ingredients. An anticaking agent is used to coat each prill to maintain free flowing characteristics and avoid agglomeration.

Detaprill ammonium nitrate prills are mixed with liquid hydrocarbons (usually fuel oil) to form a blasting agent called ANFO. To obtain optimal detonation performance with ANFO, it is necessary that the fuel oil be uniformly mixed with the prills. A mix of 5.7 wt % fuel oil and 94.3 wt % ammonium nitrate prill yields an oxygen balanced explosive with maximum available energy. Greater or lesser proportions of fuel oil results in decreased detonation performance.

Advantages

Detaprill ammonium nitrate prill is not a Class 1 Dangerous Good (explosive), reducing storage, handling and transportation risks. The free flowing characteristics of Detaprill allow for optimal bulk handling of this product.

Properties

Property	Detaprill
Bulk Density Loose Poured (g/cm^3)	0.72 - 0.78
Ammonium Nitrate (% wt)	99.0
Fuel Oil Retention (% wt)	>6.00
Moisture Content (% wt)	<0.20
Prill pH (10% solution)	5.0 ± 0.5
Mean Prill Diameter (mm)	1.80 – 2.20
Prills Smaller than 1 mm (%)	1 ± 1

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Recommendations

Priming Requirements - Are application, diameter and rock type dependent. Please consult your local Dyno Nobel representative for priming requirements best suited to your application.

Shelf Life – Ideally, Detaprill ammonium nitrate should be stored under cover in a well ventilated environment that minimises the maximum temperature exceeding 36°C.

Sleep Time – For applications where unusual or specific conditions exist please consult your local Dyno Nobel representative.

Reactive Ground Conditions – Detaprill is not designed for use in reactive (pyritic) ground conditions. For applications in reactive ground conditions please consult your local Dyno Nobel representative.

Dangerous Goods Classification

Product Name:	Detaprill
Correct Shipping Name:	Ammonium Nitrate
UN Number:	1942
DG Class:	5.1

Safe handling, transportation & storage

First Aid – You can find detailed first aid information on the relevant Dyno Nobel Safety Data Sheet. Refer to www.dynonobel.com for more information if required.

Safety - All explosives are classified as dangerous goods and can cause personal injury and damage to property if used incorrectly.

Transportation and Storage - All explosives must be handled, transported and stored in accordance with all relevant regulations. Stock should be rotated such that older product is used first.

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