



# INERIS

NATIONAL INSTITUTE FOR INDUSTRIAL ENVIRONMENT AND RISK

- decree nr 90-1089, 7 December 1990 -

- order from the Minister of Industry, 20 December 1996 -

## EXPLOSIVES FOR CIVIL USES

- 1 - EC TYPE-EXAMINATION CERTIFICATE
- 2 - **0080.EXP.13.0010**
- 3 - This certificate is relating to the following product:  
**Mining explosive ANFO HP**
- 4 - This product is manufactured by:  
**NITROCHEM Ltd.**  
Lofiskos-Sohos  
GR - THESSALONIKI - 57 200 GREECE  
  
The applicant for the examination is:  
**EXTRACO S.A.**  
90 Septemvriou 3rd.  
GR - 104 34 ATHENS - GREECE
- 5 - The above named product is specified in the enclosed appendix.
- 6 - The National Institute for Industrial Environment and Risk (INERIS), notified with the identification number 0080 in accordance with the article 6.2 of the Council Directive 93/15/EEC, 5 April 1993, testifies that:  
The above named product model is recognized to conform to Essential Safety Requirements as defined in annex I of that Directive.
- 7 - In addition to the EC type-examination (module B) defined in annex II of the Directive, the applicant has retained the assessment of the production quality assurance (module D) defined in the same annex. In compliance with para 3.3 of module D, the decision for the assessment has been notified to the manufacturer.

Verneuil-en-Halatte, March 29, 2013

The Chief Executive Officer of INERIS  
By delegation, the Chief Certification Officer

C. MICHOT





# INERIS

NATIONAL INSTITUTE FOR INDUSTRIAL ENVIRONMENT AND RISK

- decree nr 90-1089, 7 December 1990 -

- order from the Minister of Industry, 20 December 1996 -

## Appendix to the EC type-examination certificate nr 0080.EXP.13.0010

A1 - PRODUCT NAME : ANFO HP

### A2 - PRODUCT DESCRIPTION:

#### general identification:

- family : fuel nitrate explosive
- consistence : solid
- color : white
- packaging : waterproof, laminated plastic bags of 25 kg gross weight.
- manufacturer's reference : ANFO HP

#### characteristics:

- density :  $0.8 \pm 0.06 \text{ g/cm}^3$
- velocity of detonation :  $2500 \pm 200 \text{ m/s}$  (in PVC tube  $\varnothing_{\text{ext.}} 100 \text{ mm} - \varnothing_{\text{int.}} 96 \text{ mm}$ )
- strength (Trauzl test) :  $300 \text{ cm}^3$
- brisance (Hess test) : 4 mm
- energy of explosion : 900 kcal/kg
- minimum diameter of holes : 100 mm

#### general conditions:

- shelf life : 6 months since production date
- temperatures for storage : maximum + 40°C
- temperature for use : - 10°C to + 60°C
- mean of initiation : detonator 0,8 g PETN minimum
- water resistance : poor
- sensitiveness to impact : to take into account
- sensitiveness to friction : to take into account

### A3 - DOCUMENTATION:

	reference	date
- examination report	: DSC-13-136654-03189A, PNEO-AgCE 28/17	3/20/2013
- decision on certification	: DSC-13-136654-03204A, PNEO-AgCE 28	3/29/2013

### A4 - PARTICULAR CONDITIONS FOR USE:

As specified by the manufacturer.  
National regulations for use may also apply.

### A5 - MARKING:

- CE and symbol of Notified Body : in conformity with para 1 of module D in annex II of the Directive
- others : batch number, certificate number

