

Headquarter Plac Alfreda Nobla 1 43-150 Bieruń, Poland tel: (+48) 32 46 61 101 fax: (+48) 32 46 61 357 www.nitroerg.pl Second location of activity ul. Zawadzkiego 1 42-693 Krupski Mlyn, Poland tel: (+48) 32 46 62 102 nitroerg@nitroerg.pl

INSTRUCTIONS FOR SAFE USE

NITROCORD PETN DETONATING CORD, ROCK

The information and recommendations included in this instructions are provided to ensure safe handling of the product by the users. The recommendations do not replace any regulations which are obligatory with the use of blasting agents. The manufacturer is not responsible for using the product not as directed. It is forbidden to use detonating cord NITROCORD without prior knowledge of this instruction.

HAZARDS IDENTIFICATION

1. Explosion hazard

Detonating cord NITROCORD is an explosive which creates a mass explosion hazard (involves the entire load immediately). There is a risk of explosion due to friction, impact or influence of fire. The decomposition of the explosive, forming core of cord occurs in temperatures exceeding 140 °C.

2. Fire hazard

Combustion of small amounts of the cord in closed spaces or combustion of large amounts of the cord cause move into detonation. During combustion toxic gases are emitted: nitrogen monoxides, carbon monoxides and hydrogen chloride.

3. Environmental hazard

The product isn't soluble in water and don't make risk of contamination of environment. Risk of contamination of soil isn't exist.

4. Toxicological hazard

Toxicological hazard may be caused by direct contact with PETN, included in detonating cord. Paths of absorption: skin, mucous membranes, respiratory system and digestive system.

SCOPE AND CONDITIONS OF USE

Detonating cord NITROCORD is destined for use in underground mines, where the danger of coal dust and/or methane explosion <u>not exists</u> and open pit mines. It can be loaded to dry and wet blasting holes.

CONDITIONS FOR SAFE TRANSPORT, STORAGE AND USE

 Detonating cord NITROCORD is to be transported in compliance with the applicable RID, ADR and IMDG regulations.

Proper transport name:

DETONATING CORD

Class:

1

Classification code:

1.1 D

No. identification of material:

UN 0065

- 2. Detonating cords NITROCORD have to be stored in warehouses in compliance with valid regulations, in the temperature range:
 - 0 °C ÷ 45 °C for NITROCORD 6-N and NITROCORD 10,
 - 20 °C ÷ 50 °C for NITROCORD 12, 20, 25, 40, 80 and 100.
- 3. Detonating cord is to be used in compliance with the applicable mining regulations within the temperature range between $20 \, ^{\circ}\text{C} \div 50 \, ^{\circ}\text{C}$.
- **4.** Detonating cords are to be handled exclusively by personnel trained and authorized in compliance with all applicable legal regulations.
- 5. Avoid operations where mechanical factor such as friction and impact, thermal factor and electrical sparks affect NITROCORD.
- 6. Never use the product in case, that it quality is questionable.
- 7. Wash hands after completing operations involving detonating cord.
- **8.** Detonating cord wastes, expired detonating cord and used packaging are to be delivered for neutralization to a company holding appropriate permission.

SPECIFIC RECOMMENDATIONS

- Before use, check the ending of cord, including PETN core special attention should be paid to trace of humidity. Sections of cord without PETN or with traces of humidity should be cut and passed to neutralization.
- 2. The cord should be cut with sharp knife only on wooden or rubber pad, the best with one stroke of the knife.
- 3. After cutting the ends of cord must be secured immediately by using insulating tape.
- **4.** Don't store cord with damaged coating. Damaged sections of cord should be cut and passed to neutralization.
- 5. The cord may be initiated only from a safe distance away from the explosion site, by an initiating agents intended for this purpose.
- 6. Connecting of initiating agent by an insulating tape should be made in the distance not less than 5 cm from the end of cord. Connecting of initiating agent or special devices approved for this purpose should be made so that detonator properly adhere to the cord and is turned towards to course of detonation wave.
- 7. Section of cord in blasting hole should be straight, without loops and bends.
- 8. Connecting of cords should be made on overlap, on section not less than 20 cm and protected with insulating tape.
- 9. Connecting of pieces of cords cannot be placed in stemming.
- 10. Branches of blasting network must go out towards to the course of detonation wave.

EXPIRY DATE

- 1. The allowable storage period for detonating cord NITROCORD is 24 months from the date of manufacturing.
- 2. Never use the product after its expiration date.

Specjalista Technolog
mgr inż. Patrycja Zieleżnik

Issued on: 27.03.2013 r.

Główny Technolog Dział Technologiczny

mgr inż. Marcin Ślimak