



MSDS - DETONATING FUSE

Synonyms:

Dynaex Cord , Detonating cord,
Detcord,Primer cord, Cordtex ,Primacord

UN Number: UN0065



BEEZAASAN EXPLOTECH LTD

THINK POWER THINK US

The Only Leading Explosive Manufacturer of Gujarat

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It is a thin flexible PVC tube filled with PETN. It is a high speed Fuse. It explodes instead of burning. Therefore it is used to Link and initiate multiple explosive points.

PRODUCT & COMPANY IDENTIFICATION

Generic Material: PETN (Penta Erythritol Tetra Nitrate)
Velocity of Detonation: 6500 Meter/Sec.
Proper Shipping Name: Cord, Detonating
UN No.: 0065
Uses: Mining, quarrying, and general blasting.
Recommended use: For initiating charges.

PRODUCT & COMPANY IDENTIFICATION

Code	Hazard Class	Hazard category
H201	Explosives	Division 1.1
H302	Acute toxicity, oral	4

Fire Hazards - May ignite if it comes in contact with combustible material or open flame. There is an extreme risk of fire and if involved in an explosive fire, an explosion could result.

Explosion Hazards - It is a self-explosive, it can explode on any kind of wrong transportation, wrong handling, wrong use practices, or friction, impact, static, and heat applied.

Hazardous Combustion Products - No unusual combustion products are produced. However, toxic fumes may occur.

PRECAUTIONARY INSTRUCTIONS

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
- Do not subject to grinding or shock.
- Do not eat, drink, or smoke when using this product.
- Do not throw product reel for passing.
- Do not cut it with sharp stone on site, use approved tools to cut it.
- Do not pull it tightly by tying knots at the working site.
- Avoid rushing while handling detonating fuse.
- Avoid friction, impact, static, and heat.

COMPOSITION & INFORMATION OF INGREDIENTS

Chemical Name	CAS No.	Proportion (weight %)
Penta Erythritol Tetra Nitrate (PETN)	78-11-5	40 to 50
PVC Compound	9002-86-2	30 to 40

PHYSICAL & CHEMICAL PROPERTIES

Physical State/Colour: Solid cord rope of different colour, diameter and length.
Odor: None
Colour: Various
Chemical Name: Penta Erythritol Tetra Nitrate
Chemical Family: Organic Chemical
Melting Point: 140°C (PETN)
Decomposition Temperature: 150 to 190°C (PETN)
Explosive Properties: Velocity of Detonation - 6500 Meter/Sec.
Solubility: Soluble in acetone 15 g / 100 g acetone at 20°C (PETN)
Sensitivity to Mechanical Impact: Sensitive to mechanical impact
Sensitivity to Static Discharge: Sensitive to static discharge

FIRST-AID MEASURE

Inhalation- Not expected to be a hazard under normal conditions of use. In case of inhaled the material remove the victim from the contaminated area and allow him to rest in a ventilated room or in the open air. If symptoms persist, such as coughing, consult a physician.

Skin Contact- Not expected to be a hazard under normal conditions of use. If the container breaks and product comes into contact with the skin remove contaminated clothing immediately, wash the affected areas thoroughly with water, and seek medical advice.

Eye Contact- Not expected to be a hazard under normal conditions of use. In case of contact of the product with eyes, immediately flush eyes with running water for 15 minutes, keeping the eyelids open, consult an ophthalmologist.

Ingestion- Not expected to be a hazard under normal conditions of use. Accidentally ingestion may cause abdominal pain and heartburn. Never give anything by mouth to an unconscious person. Rinse the mouth with water, but only if the victim is fully conscious, and seek medical advice.

General- PETN is a vasodilator. Prolonged or repeated exposure may cause symptoms similar to acute exposure and may affect hearing and the endocrine system.

FIRE FIGHTING MEASURE

Extinguishing Media- Large quantities of water. Do not fight fire when it is near or reaches explosives, explosion risk! Burning explosives cannot be extinguished with any fire-fighting equipment.

DO NOT ATTEMPT TO EXTINGUISH THE BURNING EXPLOSIVES! RISK OF EXPLOSION

Special Remark on Extinguishing Media - For fires near explosives, dry chemical, foams, steam and smothering devices are not effective, can lead to possible explosion and must not be used. If the initial fire is out of control, evacuate the building or site immediately and move away.

Do not fight fires involving Explosives- There is an extreme risk that explosives involved in a fire may detonate, especially if confined. Evacuate the area in all directions for 1 km or more if any amount of explosives is involved in a fire. Evacuation is recommended if the initial fire, not involving explosives, becomes intense. General extinguishers may be used on the initial fire not involving explosives. Water may be used to cool explosives not involved in the initial fire. Consult the most current Emergency Response Guidebook (ERG), for additional information.

Firefighting Instructions- When fighting the initial fire, not involving explosives, firefighters should follow standard firefighting procedures for the materials involved.

Precautionary Measures- It is recommended that the amount and location of any explosives stored near a fire be determined prior to committing firefighters to fight the fire.

ACCIDENTAL RELEASE MEASURE

These measures should be taken when the cord breaks or its explosive falls /spread on the ground.

Personal Precautions- Eliminate any potential sources of ignition nearby. Wear appropriate PPE and gather the dispersed product using rigorously anti-sparking tools and equipment. (Wood or Antistatic plastic) Remove all potential sources of ignition and avoid any action that could cause an impact, friction, sparking or a sudden rise in temperature

Methods and material for containment and cleaning up- Collect with non-sparking tools and fill into properly labelled containers and transfer for disposal by specialized teams. Avoid any impact, friction, or anything that may lead to a spark or electrostatic charge. Never use tools that generate sparks. Keep anyone not involved in the operation well away from the danger area and inform them of the risk of explosion. Contamination of the spilled product with materials such as powder, sand or metal particles may increase the explosive's sensitivity to impact or friction. Keep away from incompatible chemicals.

Environmental Precautions - Avoid contaminating the soil and water. Call the fire brigade if soil or water is contaminated

STABILITY AND REACTIVITY

Reactivity- Impact, friction, electrostatic charge, excessive temperature rise, naked flames and other causes of ignition can cause explosion. Fire can lead to explosion.

Chemical Stability- Stable within the storage temperatures recommended, and stable at the recommended storage limit.

TOXICOLOGICAL INFORMATION

Toxicological effects- Under normal conditions, the explosive is enclosed in special wrapping. If break the rope, the toxicity of the contents is similar to that of the component present in the highest percentage, namely PETN. Can cause slight irritation to the mucous membranes. PETN is a vasodilator, hence in case of inhalation causes effects similar to those of nitro-glycerine, i.e. headache, fatigue, decrease in blood pressure, nausea

ECOLOGICAL INFORMATION

Under normal conditions, the explosive is enclosed in a special wrapping. If the wrapping breaks, so the following toxic effects of PETN can occur in the environment.

Hydrolysis is not expected to significantly affect the environmental fate of PETN. The primary physical degradation mechanism of PETN in aqueous solution is photolysis. PETN is expected to persist at length in clear illuminated surface water. Biodegradation of PETN occurs in water and soil, mainly in anaerobic conditions.

EXPOSURE CONTROL / PERSONAL PROTECTION

Control Parameter- Occupational exposure limits not applicable under normal handling conditions. Information about the main explosive substance (PETN) - Not Available
Exposure controls:

Technical measures- The generation and accumulation of electrostatic charge on people and equipment must be avoided by means of effective earthing. Provide good ventilation. Respiratory protection - Not required during normal handling. Do not breathe fumes after detonation

Eye protection- not required during normal handling.

Skin protection- Not required during normal handling. Work clothes must be antistatic, made of cotton for instance, and flame retardant.

Hand protection- not required during normal handling. It is advisable to use appropriate work gloves anyway, even with sealed products.

Other- Use appropriate anti-static safety footwear.

TRANSPORT INFORMATION

UN Number:	UN Proper Shipping Name:	Transport Hazard Classes:
UN 0065	Detonating cord, flexible	1.1D

Special Precautions: It is a danger material, so utmost care should be taken in transportation. Attention should be paid during Transportation. Explosive should not be jerked or jumped.

HANDLING AND STORAGE

Precautions for Safe Handling- Handle with care, bearing in mind the potential hazards. Earthed all electrical equipment present and any conductive item. Keep the product well away from heat, direct sunlight and other sources of ignition, including combustible materials. The boxes must be handled with care and opened using tools that do not produce sparks and do not damage the contents. Do not smoke and do not use naked flame during handling. Risk of explosion due to impact, friction, static heat & fire or other sources of ignition, so avoid them. Do not eat, drink or smoke when handling the product. Wash your hands thoroughly after handling the product. Remove contaminated clothes and PPE'S before entering areas where food and drink are consumed.

Instruction for Storage - Store only in licensed stores that are suitable for the purpose, in accordance with the Explosive Regulation. Take measures to avoid the generation and accumulation of electrostatic charges. Keep the storage areas closed. Do not smoke or do anything else that can lead to impact, friction or a sudden rise in temperature. Storage temperature 25°C to 45°C.

DISPOSAL CONSIDERATIONS

Considering the potential risk associated with the kind of product, it must only be disposed by personnel specifically trained for the purpose. Reduce the generation of waste to a minimum. Collect waste in appropriate containers in accordance with the applicable regulations, ready for disposal using approved methods.

REGULATORY INFORMATION

Classification- It is a deadly explosive, which has the potential to explode.

Risk Phrases- Susceptible to fire, impact, static, and heat. If these apply may result in explosion.

DISCLAIMER:

This MSDS summarized to our best knowledge at the date of issue, the chemical health and safety hazard of the materials and general guidance on how to safely handle the material in the workplace. Since **BEEZAASAN EXPLOTECH LTD.** Cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risk arising from its use of the material. If clarification of further information is needed, the user should contact their **BEEZAASAN EXPLOTECH LTD.** Representative at the contact details on page no. 1 Our responsibility for product sold is subject to our standard terms and conditions.

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