

	Document Type: <h1 style="text-align: center;">Safety Data Sheet</h1> <p style="text-align: center;">Conforms to ISO 11014:2009</p>
	Title: <h2 style="text-align: center;">VIPER CORD™</h2>

1. Identification of the product and Company Identification

Product Name	VIPER CORD™	Manufactured/ supplied by Manufactured for BME,By Shandong Yinguang Technology Co., LTD.
Shipping name	Detonating Cord	
Synonyms	-	
Chemical Formula	Not applicable	
Emergency telephone number	(+27) 11 706 3398	BME A division of Omnia Group (Pty) Ltd P.O. Box 70040 Bryanston South Africa 2021 Tel: 27 11 7098791 Fax:27 11 4633023

2. Composition/information on ingredients

Recommended Use	: VIPER CORD™ is used to initiate explosives and shock-tube in various mining applications.	
Appearance	: Smooth and clean, continuous length of flexible detonating cord supplied on reels for ease of application.	
VIPER CORD™ consists of a cotton core, covered by a continuous core of PETN explosive bound in nylon fibres with an over extruded colour coded high strength synthetic textile.		
Chemical Entity	CAS No	PROPORTION
(Pentaerythritol Tetranitrate) PETN	78-11-5	
Ingredients not mentioned above, which are used in the product are not hazardous		

3. Hazards identification

Based on available information, this material is not classified as hazardous according to health criteria of international authorities.	
Classified as Dangerous Goods under the UN 0065, Code for the Transport of Explosives by Road and Rail.	
Class	1.1D Explosives
Poisons Schedule	None allocated

4. First aid measures

The construction of the items prevents any chemical contamination.	
Ingestion	: Seek medical attention.
Eye contact	: Wash eye for at least fifteen minutes. If irritation persists, it is a sensible precaution to seek medical advice.
Skin	: Wash with soap and water.
Inhalation	: If exposed to fumes from detonation, in a poorly ventilated area, remove victim from exposure and loosen clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.
Notes to physician	: Treat symptomatically. Detonator assemblies are explosive – handle with care.

5. Fire-fighting measures

Specific hazards : Explosives material. Avoid all ignition sources.
Fire fighting : Explosive – do not attempt to fight fires involving explosive material. Evacuate all personnel to a predetermined safe, distant location. Leave fire to burn unless it can be fought with a remote or fixed extinguishing system (sprinklers). In case of fire where the actual product is not involved, carefully remove the product to a safe distance. For transportation fires involving large quantities of detonating cord, such as trailer load, evacuated to no less than 1km in all directions.
 Burning material may emit toxic vapours, Fire Fighters to wear self-containing breathing apparatus.

6. Accidental release measures

If explosive powder is spilled from damaged cord, remove all other explosives from the area as well as any ignitions sources. Wet down and clean spilled powder using a damp sponge or rag, avoid applying friction or pressure to the product and place in an electrically conductive bag. Contamination of this material with sand, grit or dirt will render the material more sensitive to detonation. In the case of a transport accidents notify the Police, Explosives Inspectors and BME (Tel nr. - 27 11 709 8777). Explosives should not be abandoned at any location for any reason.

7. Handling and storage

Storage : Store in clean, dry magazine suitably licensed for Class 1.1 explosives. Handle with care. Do not subject materials to impact sparking or any type of heat.

8. Exposure controls/personal protection

National occupational exposure limits : No value assigned for this specific material.
Engineering Measures : When test firing, ensure adequate ventilation to maintain air concentration below Exposure Standard. Natural ventilation should be adequate under normal use conditions.
Personal protective equipment : Safety glasses and work gloves and clothes.

9. Physical and chemical properties

Form/Colour/Odour : Flexible cord of woven textile with a protected explosive core of PETN (white crystalline powder) covered by white colour plastic or textile jacket. May have a wax finish. No odour. Supplied on reels for easy application.
Solubility : Insoluble in water.

10. Stability and reactivity

Stability : Detonation can occur from impact, friction and excessive heating.

11. Toxicological information

No adverse health effects if the product is handled in accordance with the Safety Data Sheet and the product label

Ingestion : PETN is moderately toxic if ingested, see systemic effects below.
Eye contact : May cause eye irritation.
Skin contact : PETN is not known as a skin irritant or sensitizer
Inhalation : See systemic effects below
Systemic Effects : PETN is s known coronary vasodilator, and ingestion or inhalation may result in lowering of blood pressure, headache or faintness, and a decreased tolerance for grain alcohol. Repeated over-exposure may result in chest pains in the absence of exposure. Systemic effects include dermatitis.
Carcinogenicity : No constituents are listed by NTP, IARC or OHSA

12. Ecological information

Avoid contaminating waterways

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13. Disposal considerations

For small quantities : Follow destruction methods duly authorised by relevant authorities and internal management procedures.
Large quantities : Should be returned to BME or be disposed of in conjunction with relevant authorities.

14. Transport information

Road/Rail transport:

Classified as Dangerous Goods under the criteria of Australian Code for the Transport of Explosives by Road and Rail.

UN No : UN 0065
Class/Division : 1.1D
Packing group : II
Proper Shipping Name : Detonating Cord

Air Transport:

TRANSPORT PROHIBITED under the Air Transport Association (IATA) Dangerous Goods Regulations for transport by air in passenger and cargo aircraft.

15. Regulatory Information

The product is classified as explosive and should be carefully handled and used following approved safety procedures either by or under the direction of competent, experienced persons in accordance with all applicable regulations or by-laws.

16. Other information

History

Date of printing : 18-03-2020
Date of issue : 18-03-2020
Date of previous issue : 30-08-2018
Recommended by : C Oussoren – LAB Supervisor
Authorised by : DH Voogt – General Manager – Production and Logistics

Remarks:

This SDS summarizes, at the date of issue, our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle the product in the workplace. As **BME** cannot control the use and handling of the product, each user must review the SDS in the context of how the user intends to handle and use the product in the workplace.