

Document Type:

Material Safety Data Sheet

Title:

Mega Fuse™**1. Identification of the product and Company Identification**

Product Name	:	Mega Fuse™
Proper Shipping Description	:	Detonator Assemblies, Non-electric
Trade Names and Synonyms	:	Mega Fuse™ Capped Fuse
Manufacturer	:	Manufactured for BME by Shandong Yinguang Technology Co., LTD.
Distributor	:	BME, A Division of Omnia Group (Pty) Ltd.
Transportation Emergency	:	+27 11 706 3398

2. Composition/information on ingredients

Mega Fuse is a length of safety fuse capped with a **detonator** at one end and an igniter cord connector at the other end. Safety fuse consists of a dense, granulated black powder core, enclosed in an envelope of textile yarns which are suitably waterproofed. The product is enclosed and the ingredients are not likely to be exposed.

Hazardous Components				
Material / Component	%	CAS nr.	TLV	PEL
Potassium Nitrate ¹	70-76	007757-79-1	NE	NE
Sodium Nitrate ¹	70-74	007631-99-4	NE	NE
Charcoal	8-18	N/a	NE	NE
Sulphur	9-20	007704-34-9	NE	NE
Graphite ²	Trace	007782-42-5	NE	NE
N/a = not assigned NE = Not established				

1. Black powder contains either potassium nitrate or sodium nitrate in the percentages indicated. It does not contain both

2. Not contained in all grades of black powder

Ingredients that are not mentioned above, which are used in this product are not hazardous and consist mainly of plastic and/or yarn wrapping

3. Hazards identification

PREVENTION OF ACCIDENTS IN THE USE OF EXPLOSIVES

The prevention of accidents in the use of explosives is a result of careful planning and observance of the best-known practices. The explosive user(s) must remember that they are dealing with a powerful force and that various devices and methods have been developed to assist them in directing this force. The user should realise that this force, if misdirected, might either kill or injure both him and his fellow workers.

WARNING

All explosives are dangerous and must be carefully handled and used following approved safety procedures either by or under the direction of competent, experienced persons in accordance with all applicable federal, state, and local laws, regulations, or ordinances. If you have any questions or doubts as to how to use any explosive product, DO NOT USE IT before consulting with your supervisor, or the manufacturer, if you do not have a supervisor. If your supervisor has any questions or doubts, he should consult the manufacturer or authorised distributor before use

4. First aid measures

Effects of Overexposure:

Injury form detonation	Seek immediate medical attention.
Eyes:	Not a likely route of exposure. Flush eyes with water.
Skin:	Not a likely route of exposure. Wash skin with soap and water.
Ingestion:	Not a likely route of exposure. If ingested, induce vomiting immediately by giving two glasses of water and sticking finger down throat.
Inhalation:	Not a likely route of exposure. If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Seek immediate medical attention.
Systemic or Other Effects:	None known

Emergency and First Aid Procedures:

Injury form detonation	Seek immediate medical attention.
Eyes:	Flush eyes with water.
Skin:	Wash skin with soap and water.
Ingestion:	If ingested, induce vomiting immediately by giving two glasses of water and sticking finger down throat.
Inhalation:	If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Seek immediate medical attention.
Systemic or Other Effects:	None known

Health Hazard Data

General: Referenced is Division 1.1 explosives, and detonation may cause severe physical injury, including death. All explosives are dangerous and must be handled carefully and used following approved safety procedures under the direction of competent, experienced persons in accordance with all applicable federal, state and local laws, regulations and ordinances.

Carcinogenicity: National Toxicology Program (NTP), International Agency for Research for Cancer (IARC), or Occupational Safety and Health Administration (OSHA) does not list the components as a carcinogen.

5. Fire-fighting measures

Flashpoint: N/A

Flammable Limits: N/A

Extinguishing Media: None

Unusual Fire and Explosive Hazards: Will detonate if suitably primed by heat, flame or severe impact.
Hazardous gases produced in fire are Nitrogen Oxides and Carbon Monoxide.

Special Fire Fighting Procedures: **DO NOT FIGHT EXPLOSIVES FIRES! Try to keep fire from reaching explosives. Isolate area and evacuate personnel to a safe place. Guard against intruders.**

6. Accidental release measures

Spill/Leak Response: Review fire and explosion hazards before proceeding with clean up. Remove and protect all ignition sources. Wear protective equipment during clean up. Mop up with water using soft non-sparking tools. It is suggested that only personnel trained in emergency response should respond. Verify a complete account of the product('s). Notify authorities and follow applicable Federal, State and local spill reporting requirements.

Waste Disposal Method: Dispose of in compliance with local and national regulations. Waste product should be treated as hazardous waste.

7. Handling and storage

Precautions in handling and storage: Store in compliance with all Federal, State and Local regulations. Keep away from ignition sources, strong shock, flames and heat. Store in a cool, dry well ventilated magazine.

Storage Conditions: Store in accordance with the requirements of national regulations on hazardous chemicals/explosives.

Prevention of Accidents in the Use of Explosives

The prevention of accidents in the use of explosives is a result of careful planning and observance of the best-known practices. The explosive user must remember that he is dealing with a powerful force and that various devices and methods have been developed to assist him in directing this force. He should realize that this force, if misdirected, might either kill or injure both work and fellow workers.

8. Exposure controls/personal protection

Ventilation: Not required for normal handling.

Eye Protection: Safety glasses.

Protective Clothing: Wear protective gloves and clothing to protect exposed skin such as overalls and conductive boots.

9. Physical and chemical properties

Boiling Point	N/A
Vapour Pressure	N/A
Vapour Density	N/A
Solubility in Water	Insoluble
Vapour Density	N/A
Melting Point	N/A
Evaporation Rate	N/A
Appearance and Odour	Mega Fuse is a length of safety fuse capped with a detonator at one end and an igniter cord connector at the other end. Safety fuse consists of a dense, granulated black powder core, enclosed in an envelope of textile yarns which are suitably waterproofed.

10. Stability and reactivity

Stability: Stable under normal conditions.

Conditions to Avoid: Keep away from ignition sources, strong shock, heat and flame.

Incompatibility: N/E

Hazardous Decomposition: Nitrous Oxide and Carbon Monoxide

11. Toxicological information

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

12. Ecological information

Avoid contaminating waterways

13. Disposal considerations

Waste Disposal Method: Dispose of in compliance with local and national regulations. Waste product should be treated as hazardous waste

14. Transport information

Proper Shipping Name : Detonator Assemblies, non-electric

UN Classification Codes : 1.1B

UN Number : UN 0360

Packaging Group : II

DOT Placard : EXPLOSIVES 1.1B

For further information contact : Dawie Mynhardt or Hazel Schalkwyk

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MSDS prepared by: Safety and Compliance Dept.
19th September 2011

15. Regulatory Information**PREVENTION OF ACCIDENTS IN THE USE OF EXPLOSIVES**

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16. Other information**History**

Date of printing : 02/03/2015

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Date of previous issue : 03/01/2014

Recommended by : R Pathak – Research and Development Manager

Authorised by : D Mynhardt – Production and Technical Director

Remarks

This MSDS 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 MSDS in the context of how the user intends to handle and use the product in the workplace.

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