

	Document Type:	Safety Data Sheet Conforms to ISO 11014:2009
	Title:	VIPER BOOSTER™, HORNET BOOSTER™

1. Identification of the product and Company Identification

Product Name	VIPER Booster™, HORNET Booster™	Manufactured/ supplied by
Shipping name	Boosters, without detonator	Manufactured for BME, By Shandong Yinguang Technology Co., Ltd. BME A division of Omnia Group (Pty) Ltd P.O. Box 70040 Bryanston South Africa 2021 Tel: 27 11 7098791 Fax: 27 11 4633023
Synonyms	BST Booster	
Chemical Formula	Not applicable	
Emergency telephone number	(+27) 11 706 3398	

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.

2. Composition/information on ingredients

Substance/preparation:

Chemical name*	CAS No	%	TLV
Europe			
Trinitrotoluene (TNT)	118-96-7	30-90	0.5 mg/m ³
Pentaerythritol Tetranitrate (PETN)	78-11-5	0-70	Not established
Cyclotrimethylene Trinitramine (RDX)	121-82-4	0-60	Not established

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

*See Section 16 for the full text of the R Phrases declared above

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3. Hazards identification

Classified as Dangerous Goods, under the UN 0042, Code for the Transport of Explosives by Road and Rail.

Class	1.1D Explosives
Poisons Schedule	None allocated

4. First aid measures

General	:	Referenced is Division 1.1 explosives. 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.
Swallowed	:	Not applicable.
Eye contact	:	May cause irritation, redness and tearing.
Ingestion	:	Harmful if swallowed. May cause headaches, weakness, or liver injury. Induce vomiting immediately by giving two glasses of water and sticking finger down throat.
Skin	:	Prolonged contact may cause irritation. Wash skin with soap and water.
Inhalation	:	Inhalation of explosive powders may cause nervous system irregularities, including headaches and dizziness. Nitrogen oxides and Carbon Monoxides generated during use are skin, eye and respiratory tract irritants. May cause dizziness and nausea. If detonation fumes are inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen and call a physician.
Injury from Detonation	:	Seek prompt medical attention.
Notes to physician	:	Treat symptomatically. Detonator assemblies are explosive – handle with care.
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 carcinogenic.

5. Fire-fighting measures

Extinguishing Media	:	None.
Specific hazards	:	Explosives material. Avoid all ignition sources.
Fire fighting	:	Explosive: Severe detonation hazard when exposed to heat. In case of fire where the actual product is not involved, carefully remove the product to a safe distance, otherwise evacuate area immediately and allow to burn. On burning may emit toxic fumes. Fire fighters should wear self-contained breathing apparatus if risk of exposure to vapour or products of detonation.
Unusual Fire & 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	:	EXPLOSIVES: 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

Shut off all ignition sources. Collect and seal in properly labelled containers for collection. 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.
Precautions in Handling and Storage	:	Store in compliance with National regulations. Keep away from ignition sources, strong shock, flames and heat. Store in cool, dry conditions.

8. Exposure controls/personal protection

National occupational exposure limits	:	No value assigned for this specific material.
Engineering Measures	:	When performing dynamic functionality tests, ensure adequate ventilation to maintain air concentration below Exposure Standard. Natural ventilation should be adequate under normal use conditions.
Personal protective equipment	:	Not required. Always wash hands before smoking, eating, drinking or using the toilet.

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9. Physical and chemical properties

Boiling Point	:	Not applicable.
Vapour Pressure	:	Not applicable.
Vapour Density	:	Not applicable.
Solubility in Water	:	Insoluble.
Specific Gravity	:	1.5 – 1.6
Melting Point	:	80°C
Evaporation Rate	:	Not applicable.
Appearance and Odour	:	Tan to brown solid with no odour.
Flashpoint	:	Not applicable.
Flammable Limits	:	Not applicable.

10. Stability and reactivity

Stability	:	Stable under normal conditions.
Conditions to Avoid	:	Keep away from ignition sources, strong shock, heat and flame.
Incompatibility	:	No data available.

11. Toxicological information

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

Ventilation Respiratory	:	Not applicable
Eye Protection	:	Safety goggles
Skin contact	:	Not applicable
Protective Clothing	:	Wear protective gloves made of rubber or neoprene. Wear clothing to protect exposed skin such as flameproof coveralls and conductive.

12. Ecological information

Avoid contaminating waterways

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 by the International Maritime Dangerous Goods Code (IMDG Code) criteria for transport of Explosives by Road and Rail

UN No	:	UN 0042
Class/Division	:	1.1D
HazChem Code	:	E 1.1
Proper Shipping Name	:	Booster without detonator

For further information Contact : Dawie Mynhardt (+27 82 887 1843)

Marine Transport:

Classified as Dangerous Goods by the International Maritime Dangerous Goods Code (IMDG Code) criteria for transport by sea.

Air Transport:

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

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15. Regulatory Information

Based on information available, this material is not hazardous, based on adherence to safe working procedures

16. Other information

History

Date of printing	:	18-03-2020
Date of issue	:	18-03-2020
Date of previous issue	:	29-08-2018
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.