

Material Safety Data Sheet

This document relates to products which are designated as **Non-Hazardous Articles**. They **DO NOT** contain **Substances of Very High Concern (Ref. 6)** and are not classified as **chemicals, chemical preparations or mixtures**. Under current **EC Reach legislation** they do not require a **safety data sheet (SDS)**.

This guidance sheet has been prepared for the convenience of our customers in order to satisfy an ongoing volume of user requests, providing information, guidance and advice in the safe use of TBA's products. For convenience, the information is presented in a familiar format for onward transmission along the supply chain.

1. Identification Of Substance / Preparation And Company

Product Category (brief description)	Symbol Prefix Firefly™ Apollo Lite, Firefly™ Zeus Lite, Firefly™ Titan Lite, Firefly™ Vulcan Lite		
Identified uses			
Manufacturer / Supplier	TBA Protective Technologies Ltd Unit 3 Trans Pennine Trading Estate Gorrells Way Rochdale Lancashire OL11 2PX	Date of Issue:	January 2019
		Prepared by:	Helen Brain
Tel No. information/emergency	(01706) 647422	Monday to Thursday	08.30 to 17:00
		Friday	08:30 to 15:30
Fax No. information/emergency	(01706) 354295		
Email	info@tba-pt.com		

2. Hazard Identification

The products covered by this data sheet do not pose a generalised health risk and no hazard specific labelling is required.

Users need to be aware that they contain fibreglass which has the potential to irritate skin, eyes, mucous membranes or upper respiratory tract. Those susceptible are likely to experience skin-irritation on first-contact. The effects are usually short-lived and frequently disappear when the source of irritation has been removed. With long-term exposure, the skin surface usually hardens, leading to either a reduction or elimination of symptoms. Workers who make use of barrier creams and employ sensible hygiene precautions do not usually report ongoing problems. If workers are withdrawn from frequent exposure (to glass fibres), the skin surface usually re-softens. Those people with a history of skin complaints may be particularly susceptible to the effects listed above. They should be carefully managed to minimise or avoid contact, making use of personal protective equipment such as gloves (see section 8).

TBA Protective Technologies has been careful to minimise the potential for irritation by selecting the filament-size of glass used in these products to be below 11 micron in diameter, (above that size the potential for irritation increases). This point being made, care should still be taken to control and eliminate contact with loose fibres insofar as is reasonably practicable.

The products do not constitute a respirable hazard due to the fact that the smallest diameter of glass filament from which they are made is greatly in excess of the 3-micron limit, below which a fibre is generally categorised as being respirable. If they are subjected to harsh mechanical abrasion, individual fibres may break horizontally into smaller lengths, but they will not divide longitudinally to form fibrils of a smaller diameter.

3. Composition / Information on Ingredients

These products are manufactured using borosilicate, E Glass fibres (EC no. 266-046-0 / CAS no. 65997-17-3). The fibres contain small amounts of complex organic surface dressings, which may include starch, silane or PVA type materials.

The products do not contain any SVHC's or substances which require authorisation under REACH legislation

4. First Aid Measures

Inhalation	Remove the individual to fresh air. Obtain medical advice.
Skin Irritation	Wash the affected area with mild soap and water. If irritation persists obtain medical advice.
Eye Irritation	Irrigate with eyewash until irritation subsides. Obtain medical advice if irritation persists.

5. Fire-Fighting Measures

Flammability	The materials are inherently flame resistant.
Special Firefighting Procedures	Wear self-contained breathing apparatus in a sustained fire.
Extinguishing Media	Use that appropriate to the surrounding fire.

6. Accidental Release Measures

If these products are rendered friable (e.g. fire damaged), personal protective equipment should be used for clean-up and containment activities.

7. Handling and Storage

It is highly unlikely that these products will give rise to significant amounts of loose fibre during normal handling and control measures will rarely be required in circumstances involving the fabrication of products from these materials. Best working practices should be adopted to minimise and contain any particulates released. Accumulated dust should be removed using the safest practicable method, preferably by high efficiency particulate air (HEPA) filtered vacuum collection. If these products are used in a manufacturing process that generates dust, exposure controls detailed in [section \(8\)](#) must be followed. In the event of the fabric becoming wet, and slightly acidic in nature, personal protection equipment eg. Gloves, spectacles and overalls should be worn.

It is recommended that the fabrics are stored within their original wrappings, out of direct sunlight and in a dry location until ready for use. No special storage conditions are required on health grounds.

8. Exposure Control / Personal Protection

Substance	Workplace Exposure Limit				References (see section16)
	Long-term exposure limit (8-hour TWA reference period)		Short-term exposure limit (15-minute reference period)		
	ppm	mg/m ³	ppm	mg/m ³	
MMMf (machine -made mineral fibre) – glass fibres	--	5 (and 2 fibres per ml)	--	--	1,2
Dust (inhalable)		10			1,3
Dust (respirable) if inhalable dust exceeds or equals 10 mg/m ³		4			1,3

Respiratory Protection - When used in an operation that gives rise to the generation of dust, the process should be closely monitored and provision of local exhaust ventilation should be considered as a control measure. Should this not be practicable, it is recommended that RPE (respiratory protective equipment) is employed to eliminate the possibility of inhalation exposure. Ensure that RPE manufacturer's instructions are followed in respect of the safe and appropriate use of the equipment selected. [For help on the selection of suitable equipment see section 16 \(Ref 5\)](#). In general, equipment conforming to EN136, EN140 or EN405 with particle filters conforming to EN143 or EN149 (P1 or P2) should be fully sufficient in most circumstances.

Skin/Hand Protection - Protective overalls of a closely woven structure should be worn to reduce the chance of skin irritation. Other recommendations include the use of gloves, arm cuffs and barrier creams.

Eye protection - Safety glasses with side-shields conforming to EN166 should always be worn to prevent the possibility of glass fibres and other particles entering the eye.

Hygiene - Wash hands before breaks and immediately after handling the product. Ensure that hands and arms are washed with copious quantities of cool running water to remove any loose fibres before the application of liquid soap for washing purposes. The use of bar-soap is not advised as this could lead to an accumulation of potentially irritant fibres on the surface of the block of soap.

When using these products do not eat, drink or smoke.

9. Physical and Chemical Properties

Weights	See appropriate Product Data Sheets
Appearance	White
Odour	The products have no discernible odour.
Solubility in Water	Insoluble
Melting point	>700 °C
Boiling Point	Not applicable
Vapour Pressure	Not applicable
Percent Volatile (vol.)	Not applicable
Evaporation Rate	Not applicable

10. Stability and Reactivity

The products are stable and un-reactive under normal conditions of use.

11. Toxicological Information

Primary Routes of Potential Exposure	Inhalation, skin and eye contact, ingestion.
Effects of Over-exposure (Acute and Chronic)	
Inhalation (Dust)	Dust could be irritating to the upper respiratory tract. Effects from such exposures are usually transitory leaving no permanent damage. (see section 2)
Inhalation (Fume)	Contact with molten metal or flame may give rise to localised emission of fume which could prove irritant to the upper respiratory tract especially in an enclosed space.
Skin Irritation	Glass fibre may cause irritation and reddening of the skin. (see section 2)
Eye Irritation	Entry of dust fragments or glass fibre or into the eye will cause foreign body irritation.
Carcinogenicity	Continuous glass filament is not classified as a carcinogen – Group 3 IARC) – Section 16 ref. (4)
Ingestion	Ingestion is not generally classed as an applicable route to exposure for fabrics made from continuous filament glass fibres.

12. Ecological Information

These products are not associated with any known ecological problems.

13. Disposal Considerations

The disposal of waste should be carried out in accordance with national or regional directives - normally by burial in controlled industrial landfill sites.

14. Transport Information

These products are not classified or restricted for transportation.
They are suitably packed to prevent damage and ingress of water.

15. Regulatory Information

No specific regulatory information is applicable to these products.

16. Other Information

The information provided in this Health & Safety Data Sheet is based on our current knowledge.

References	
1.	Health & Safety Executive Guidance Note EH 40/2005 Workplace Exposure Limits – second edition published 2011
2.	EH40/2005: MMMF, Page 23.
3.	EH40/2005: Para 44, Page 33 (Dust of any kind when present at a concentration in air equal or greater than 10mg.m ⁻³ 8-hour TWA of respirable dust).
4.	IARC Monographs on the evaluation of Carcinogenic Risks to humans – Volume 81 Man Made Vitreous Fibres (Published 2002)
5.	Health & Safety Executive Guidance Note HSG53 (Fourth edition, published 2013) : Respiratory Protective Equipment At Work – A practical Guide ISBN978 0 7176 6454 2
6.	EC Reach Directive requires a SDS to be supplied for finished articles only in those instances in which the article contain a substance (or substances) of Very High Concern (SVHC) at a content greater than 0.1%.

For further information contact:

TBA PROTECTIVE TECHNOLOGIES LTD

NOTE:

This Data Sheet relates to the material as supplied. The information contained herein is given in good faith, but no liability will be accepted by the Company in relation to same. The acquisition of additional information may necessitate revisions to parts or all of this Data Sheet, and such information will be supplied, as it becomes available.

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