

SECTION 1 IDENTIFICATION

1.1 Product Identifier

Product name: Fluorofab® 162-12S

Synonyms: Woven Glass Fabric Coated with Silicone Adhesive

1.2 Relevant identified use of the product

Use of the Product: Masking for high temperature metalizing and plasma spray applications

1.3 Details of the supplier of the safety data sheet

Company: Green Belting Industries Limited

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Mississauga ON L5T 2J3 Canada

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1.4 Emergency Telephone Number

North American +1 905 564 6712 Available between the hours 09:00 to 17:00 (EST)

Emergency Telephone

Number:

European Union +44 (0)1274 699425 Available between the hours 09:00 to 17:00

Emergency Telephone (UTC/GMT)

Number:



SECTION 2 HAZARD IDENTIFICATION

2.1 Classification of the Product

European Not a classified substance or mixture according to Regulation (EC) No. 1272/2008.

Communities (EC): Not classified as dangerous according to Directive 67/548/EEC.

USA: Not a hazardous material as defined by 29 CFR1910.1200, OSHA Hazard

Communication Standard.

Canada: Not a controlled product under WHMIS.

2.2. Label elements

Symbol: None
Signal Word: N/A
Hazard Statement(s): N/A

Precautionary Statement: P261 – Avoid breathing any fume or dust that may be generated

P264 – Wash hands thoroughly after handling.

2.3. Other hazards

Use of this product is not normally considered hazardous, however material dust caused by cutting, sawing or sanding may cause eye or skin irritation. Processing at temperatures higher than 300°C will result in thermal decomposition and may release carbon monoxide, and silicon dioxide may also be released. In all cases avoid exposure, move the individual to fresh air and consult a physician if severe.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Nature of the Mixture: Woven glass fabric with silicone adhesive

3.1 Substances

Not Applicable

3.2 Mixtures

Ingredient Name	CAS Number	% by Weight	Exposure Limits	Symbol	Risk Phrases
Glass Fibre (fibreglass cloth)	65997-17-3	34	OSHA PEL - 5 mg/m ³ ACGIH TLV - 5 mg/m ³	None	None
Polysiloxane Adhesive	556-67-2	52	N/A	None	None
Polyvinyl Chloride (inter-liner)	9002-86-2	14	N/A	None	None

The above product(s) are defined under the European Union's REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) regulation as articles, and as such are exempt from the material safety data sheet provisions of 29 CFR 1910.1200(G).

None of the product components are intentionally released during their use when used as intended and in accordance with recommended specifications and parameters.

This product is REACH compliant and does not contain REACH SVHCs (Substances of Very High Concern) materials and is considered non-hazardous when used as intended and in accordance with recommended specifications and parameters.

For full text of the R-phrases mentioned in this Section, see Section 16.

For full text of the H-statements mentioned in this Section, see Section 16.



SECTION 4 FIRST AID MEASURES

4.1 Description of First Aid Measures

General Advice: Never give anything by mouth to an unconscious person. When symptoms persist or in

all cases of doubt seek medical advice.

Inhalation: N/A for material as supplied at room temperature and used as intended and in

accordance with recommended specifications and parameters.

At sustained high temperature processing fumes can be generated which could lead to irritation to the respiratory system. Remove to fresh air or if feeling unwell after

prolonged exposure, seek medical attention.

Inter-liner – if PVC decomposes due to overheating or contact with fire, remove affected persons to fresh air. In case of irritation of respiratory system or if feeling unwell after

prolonged exposure, seek medical attention.

Skin Contact Not normally considered hazardous, for material as supplied at room temperature and

used as intended and in accordance with recommended specifications and parameters. Skin contact with the adhesive or fibrous dust may cause skin irritation. Wash with

plenty of soap and water. If irritation persists get medical attention.

Inter-liner – If contact with hot (melt) product occurs, wash with plenty of water and

treat as for thermal burn.

Eye Contact: Fibrous dust may cause eye irritation. Wash with plenty of soap and water. If irritation

persists get medical attention.

Inter-liner – After contact with hot (melt) product, immediately flush eyes with water for

several minutes at least and get medical attention.

Ingestion: If swallowed get medical advice. Do not induce vomiting unless instructed to do so by

medical personnel.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Potential health effects of acute inhalation include mechanical irritation of the mouth

nose and throat.

Skin contact may cause temporary irritation, itching and inflammation usually caused by

any fibres present.

Dust from this product may cause temporary irritation to the eyes.

Inhalation of decomposition products from overheating may cause lung irritation or

shortness of breath.

For inter-liner, after inhalation of decomposed products, symptomatic treatment (decontamination, vital functions), if necessary take action against irritation of the

mucous membranes by HCl.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically.



SECTION 5 FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing media: Water spray, Carbon dioxide (CO2), Foam, Dry Chemical

5.2 Special hazards arising from the product

Specific hazards during fire-

Hazardous thermal decomposition products.

fighting:

Carbon dioxide, carbon monoxide, low molecular weight hydrocarbons and

silicon dioxide

For PVC inter-liner – hydrogen chloride which upon contact with water forms

hydrochloric acid.

Exposure to decomposition products can be a hazard to health.

5.3 Advice for firefighters

Special protective equipment

for firefighters:

Wear self-contained breathing apparatus and protective suit. Wear neoprene

gloves during cleaning up work after a fire.

Further information: Observe local regulations when contaminated water and burning waste are

removed.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

Personal precautions: For solid product none required.

For any dusts and fibres generated during processing use protective equipment to

prevent the contamination of skin, eyes, and clothing.

6.2 Environmental Precautions

Environmental

N/A - solid product

Precautions

6.3 Methods and materials for containment and cleaning up

For solid product collect with hands broom and shovel and place in non-hazardous waste collection container for disposal.

For dusts and fibres generated during fabrication vacuum up and containerise.

6.4 Reference to other sections

For disposal instructions see section 13.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling: Solid product which presents minimal hazards to personnel when handling in

accordance with operating and storage recommendations.

The primary health hazards associated with this product are the generation of fibrous dust during processing fabrication and the inhalation of thermal



decomposition products when the product is subjected to temperatures greater

than 300°C.

Provide appropriate exhaust ventilation at places where dust or volatiles can be

generated.

Wash hands thoroughly after use.

Advice on protection against fire and

Dispose of in accordance with local regulations as a solid non-hazardous waste and

avoid inappropriate disposal practices.

explosion: Provide appropriate exhaust ventilation at places where fibres, dust or volatiles can

be generated.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for No special precautions necessary, but recommend storing in a dry cool place and

storage areas and protecting from contamination.

containers:

Advice on common No special restrictions on storage with other products.

storage:

Storage temperature: Avoid excessive temperatures.

Other data: Do not store in direct sunlight or in conditions of high humidity.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

In situations in confined spaces where the temperature exceeds 500°F (260° C), thermal degradation products may be produced. Exposure limits for these products, which include carbon monoxide, carbon dioxides, low molecular weight hydrocarbons and silicone dioxide, must not be exceeded.

hydrogen chloride

TLV TLV IDLH
TWA STEL (NIOSH)

2ppm ceiling

5ppm ceiling

In situations in confined spaces where

the temperature of the inter-liner exceeds 248°F (120° C), thermal

degradation products may be produced.

Exposure limits for these products, which

include hydrogen chloride, must not be

exceeded.

PVC is recognized as safe, however it may contain trace amounts of vinylchloride monomer (VCM), CAS-N. 75-01-04, EINECS-No. 2008310.

MAK-Value:2ppm (5mg/m³) Germany as TRK-value according to TRGS 102).

For supplied inter-liner, a VCM value of \leq 0.5ppm is guaranteed.

Given the special precautions mentioned in section 7, these traces present no toxic risk to the processing personnel.

Gloves should be worn when handling hot material. Safety glasses are normally recommended for all industrial workplaces when handling hot material.



In situations where high levels of airborne dust/glassfibers are present specified exposure limits must not be exceeded.

OSHA-PEL 5mg/m³ – nuisance dust PEL (respirable dust fraction)

 $15 \text{mg/m}^3 - 8 \text{ hour}$ TWA (total dust fraction)

ACGIH-TLV Other 3 x 10⁶ fibers/m³ 5mg/m³ - 8 hour TWA - 10 hour TWA (inhalable)

1 fiber/cm³ - 8 hour TWA (respirable)

(NIOSH)

8.2 Exposure Controls

Engineering measures Processing may produce fibrous dust, therefore it is necessary to maintain

> exposures below recommended limits, so a properly designed dust collection system is recommended at the operation source. Adequate ventilation must be

provided when working with the product at elevated temperatures.

Eye protection: Throughout basic product handling processes, and whenever handling materials

containing fiberglass, safety glasses, goggles or face shields should be worn.

Hand protection: Throughout basic product handling processes, leather or synthetic fibre gloves are

recommended to minimize cuts and abrasions.

Skin and body protection:

The wearing of a loose fitting long sleeved shirt that covers to the base of the neck and long trousers is recommended to minimise exposure to fiberglass. Skin irritation from exposure to fiberglass is known to occur mostly at pressure points

such as around the neck, wrist and waist.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practices.

> Wash hands immediately after handling the product and be careful not to rub or scratch areas irritated from fiberglass exposure, as fibres may be forced into the skin. Wash off any fiberglass in contact with the skin, and consider the use of

barrier creams which can minimise irritation.

Always use vacuum equipment to remove fibres and dust from clothing and never

use compressed air.

Contaminated clothes should always be washed separately.

Respiratory protection: Not required for normal use of the product.

> In situations where high levels of airborne dust/glassfibres are present and which exceed permissible exposure limits, or irritation occurs, then a correctly fitting

NIOSH/MHSA approved disposable dust respirator should be used.

In situations in confined spaces where the temperature of the product exceeds

500°F (260° C), an air supplied respirator should be used.

In situations where high levels of airborne dust/glassfibres or fume, use industrial

hygiene monitoring to ensure that TLV or PEL values are not exceeded.

Excessive exposure to thermal degradation products could be harmful and these substances may include carbon monoxide, carbon dioxide, low molecular weight

hydrocarbons and silicone dioxide, must not be exceeded.



SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES					
9.1 Information on basic physical and chemical properties					
Appearance:	White fabric with Yellow Liner	Flammability (solid, gas):	N/D		
Physical state:	Physical state:	Upper/lower flammability or explosive limits:	N/A		
Odour:	Odourless	Vapour pressure:	N/A		
Odour threshold:	N/A	Vapour density:	N/A		
pH:	N/A	Relative density:	N/D		
Melting point/freezing point:	N/A to product Inter-liner softening temperature 60-90°C Glass transition temp approx. 80°C	Solubility(ies):	Product - Insoluble Inter-liner soluble in tetrahydrofuran and cyclohaxanone, partly soluble in some aromatic hydrocarbons		
Initial boiling point and boiling range:	N/A	Partition coefficient: n- octanol/water:	N/A		
Flash point:	N/A	Auto-ignition temp:	N/A		
Evaporation rate:	N/A	Auto-ignition temp:	N/A		
Viscosity:	N/A	Decomposition temp:	N/D Inter-liner -> 150°C (long term contact) >200°C (short term contact)		

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity: Stable at normal ambient temperature and pressure

10.2 Chemical stability: Product is chemically stable

10.3 Possible hazardous reactions: Stable under recommended storage conditions



10.4 Conditions to avoid: Avoid heating for prolonged periods above the recommended

upper usage limit

10.5 Incompatible materials: Strong oxidizing agents, Acids, Bases

10.6 Hazardous decomposition products: May include:

Carbon monoxide, carbon dioxide, low molecular weight hydrocarbons and silicone dioxide, and hydrogen chloride 9for

the inter-liner).

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity Glass fibre diameter determines whether the fibre is respirable. NOISH has

determined that man-made mineral fibres with diameters equal or greater than 3.5 microns are non-respirable. Respirable fibres will penetrate deep into the lungs. All E-glass continuous filament fiberglass has a fibre diameter larger than

3.5 microns and therefore are non-respirable

No data available for product itself.

PVC inter-liner - Recognised as safe and biologically inert

Primary Routes of Potential Exposure Inhalation, skin and eye contact.

Skin irritation May cause skin irritation in susceptible persons. Some people who come into

contact with this glass fibre experience reddening and itching of the skin. Those who are subject to this effect are most likely to experience it when handling the materials for the first time. People with a history of skin complaints may be particularly susceptible to irritation and therefore should minimise their contact

with the material.

No data available for product itself

Eye irritation Eye Irritation Entry of glass fibre into the eye will cause foreign body irritation.

Carcinogenicity Continuous glass filament has been reported as a material 'Not

classified as to human carcinogenicity. No data available for product itself

Inhalation Glass dust from this product is not regarded as respirable due to the large

diameter of the continuous filaments used, and the levels of dust likely to arise from most operations, involving the handling and use of the materials, will be

negligible.

No data available for product itself

Coated Solutions for Performance Excellence



Sensitisation May cause skin irritation in susceptible persons.

No data available for product itself

Repeated dose toxicity No data available

Mutagenicity assessment No data available

Carcinogenicity

IARC, ACGIH and OSHA have found that the continuous fiberglass filaments are assessment not considered to be carcinogenic based on human and animal tests conducted

within the last 10 years.

No data available for the product itself.

Toxicity to reproduction

assessment

No data available

STOT-Single exposure No data available

STOT-Repeated exposure No data available

Aspiration hazard Not applicable

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity This material is not bio-degradable and not expected to cause

harm to animals, plants or fish.

PVC is not soluble in water (WKG 0 by supplier self- declaration).

PVC is harmless in contact with fish and bacteria.

In a water treatment plant, PVC can be separated mechanically.

12.2 Persistence and degradability no data available

12.3 Bio-accumulative potential no data available 12.4 Mobility in soil no data available no data available

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

Additional ecological information no data is available on the product itself.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Where possible, recycling is preferred to disposal or incineration. Dispose of in accordance Product

with local regulations.

SECTION 14 TRANSPORT INFORMATION

14.1 14.2 14.3 14.5 14.4

UN Number Transport Packing Group Environmental



Shipping Name Hazard Hazards Class(es) DOT Not Applicable Not Applicable Not Applicable Not Applicable None ADR Not Applicable Not Applicable Not Applicable Not Applicable None IATA/ICAO Not Applicable Not Applicable Not Applicable Not Applicable None IMO/IMDG Not Applicable Not Applicable Not Applicable Not Applicable None

14.6 Special precautions for user: Not classified as dangerous in the meaning of transport.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and

the IBC code:

Not applicable

SECTION 15 REGULATORY INFORMATION			
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture			
USA			
TSCA Status:	All ingredients in the product are listed in the TSCA inventory		
SARA Title III			
Sec. 303/304:	None		
Sec. 311/312:	Not applicable		
Sec 313:	Not applicable		
CERCLA RQ:	Not applicable		
California Prop 65:	This product does not contain chemicals known to the State of California to cause cancer of the reproductive system.		
State Right-to-Know Lists:	Massachusetts, New Jersey, Pennsylvania: This product does not contain any chemicals listed for state right to know purposes.		
Canada	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.		



WHMIS Classification: Not controlled

(for workplace exposures)

New Substance All ingredients in this product are listed, as required, on Canada's Domestic

Notification Regulations: Substances List (DSL).

NPRI Substances: Not applicable.

EC Classification for the Substance/Preparation

Symbol: This product is not classified as dangerous according to Directive 1999/45/EC

and its amendments.

German Water Hazard

Class

German Water Hazard Class WGK nwg. Non-water polluting substance.

Other regulations: Take note of Directive 98/24/EC on the protection of the health and safety of

workers from the risks related to chemical agents at work.

15.2 Chemical Safety Assessment

No data available

SECTION 16 OTHER INFORMATION

Text of R-phrases referred to in Section 3: N/A

Text of H-Statements referred to in section 3: N/A

Preparation Information:

Prepared by: Green Belting Industries Limited

www.greenbelting.com

Revision Date: 20 December 2013

Revision Summary: Review of regulatory, hazard classification, exposure and

toxicology data. No revisions to date.

Abbreviations and acronyms:

Abbieviations and actoryms.		
Section	Abbreviation	Description
2	CFR	Code of Federal Regulations
3	CAS	Chemical Abstracts Services
3	OSHA	Occupational Safety and Health Administration USA
3	ACGIH	American Conference of Governmental Industrial Hygienists
3	PEL	Permissible Exposure Limit



3	TLV	Threshold Limit Value			
3		SVHC Substances of Very High Concern			
8	TWA	Time Weighted Average			
8	STEL	Short-Term Exposure Limit			
8	IDLH	Immediately Dangerous to Life or Health (NIOSH)			
8	NIOSH	National Institute for Occupational Safety and Health			
8	ppm	Parts per Million			
8	ppb	Parts per Billion			
11	LD ₅₀	"Lethal Dose, 50%" or median lethal dose (amount of substance required by body weight to kill 50% of the test population			
11	STOT	Specific Target Organ Toxicity			
12	PBT	Persistent, Bio-accumulative and Toxic			
12	vPvB	Very Persistent and Very Bio-accumulative			
14	DOT	Department of Transport			
14	ADR	Agreement on Dangerous Goods			
14	IATA	International Air Transport Association			
14	ACAO	International Civil Aviation Organisation			
14	IMO	International Maritime Organization			
14	IMDG	International Maritime Dangerous Goods			
14	TSCA	Toxic Substances Control Act			
15	SARA	Superfund Amendments and Reauthorization Act			
15	CERCLA RQ	Comprehensive Environmental Response Compensation and Liability Act			
15	WGK	German Water Hazard Class			
15	WHMIS	Workplace Hazardous Materials Information System			
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