GHS SAFETY DATA SHEET (SDS)

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: PART #13 - PVA

FIBRE GLAST DEVELOPMENTS CORP.
385 Carr Drive
BROOKVILLE, OH 45309

TELEPHONE: (937) 833-5200
FAX: (937) 833-6555
FOR CHEMICAL EMERGENCY
CALL (801) 629-0667 24 HRS.

RECOMMENDED USE: Release agent

SECTION 2 – HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to OSHA-HCS and GHS-Canada WHMIS 2015

Flam. Liq. 3	H226	Flammable liquid and vapour
Acute Tox. 4	H302	Harmful if swallowed
Skin Irrit. 2	H315	Causes skin irritation
Eye Dam. 1	H318	Causes serious eye damage
STOT SE 3	H335	May cause respiratory irritation
STOT SE 3	H336	May cause drowsiness or dizziness

See section 16 for full text of H-phrases.

2.2 Label elements
Labeling according to the Globally Harmonized System (GHS) Pictograms



Signal word : Danger

Hazard statements

H226	Flammable liquid and vapour
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P312	Call a POISON CENTER/doctor if you feel unwell.
P321	Specific treatment (see on this label).
P330	Rinse mouth.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: See Section 5.2 for extinguishing media.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Material does not meet the criteria for PBT or vPvB in accordance with REACH Annex XIII.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDITENTS

3.1 Substances

Not applicable. This material is not defined as a substance.

3.2 Mixtures

This material is defined as a mixture.

Components contributing to the classification of this material	%
Ethanol CAS No. 64-17-5 Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H335 STOT SE 3, H336	20 - 25
Isopropyl alcohol CAS No. 67-63-0 Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	2 - 6
n-Butanol CAS No. 71-36-3 Flam. Liq. 3, H226 Acute Tox. 4 , H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	1 - 3

Components not listed are either non-hazardous or are below reportable limits. Concentrations are in percent by weight

SECTION 4 – FIRST AID MEASURES

General information
Do not leave victim unattended. Show this safety data sheet to doctor in attendance.

4.1 Description of first aid measures

Inhalation
Provide fresh air if light-headed or having difficulty breathing. Provide artificial respiration if needed. If difficulty breathing persists, seek medical attention. If unconscious, place victim on their side for transport to medical facility.

Skin
Remove contaminated clothing and wash affected area with soap and warm water. If irritation persists, seek medical attention. Launder contaminated clothing and shoes prior to reuse.

Eyes
Flush immediately with cold water for 15 minutes. Remove contact lenses. Keep eye wide open while rinsing. Get prompt medical attention.

Ingestion
Seek immediate medical attention. Do not induce vomiting. If spontaneous vomiting occurs keep victim's head below hips to prevent aspiration into lungs. Do not leave individual unattended.

4.2 Most important symptoms and effects, both acute and delayed

Can cause eye irritation. May cause skin irritation. If swallowed, may cause nausea, vomiting, gastrointestinal bleeding, abdominal pain, and central nervous system depression with symptoms such as drunkeness, unconsciousness, narcosis, coma, respiratory failure, and death. Prolonged or repeated exposure may result in conjunctiva, skin dermatitis, irritation of mucous membranes, liver damage, and central nervous system depression, including headache, dizziness, loss of coordination, and unconsciousness.

4.3 Indication of any immediate medical attention and special treatment
Treat symptomatically. Seek immediate medical attention if ingested.

SECTION 5 – FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Standard procedure for chemical fires. Use dry chemicals, carbon dioxide, water fog, water spray, or alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media
Do not use high volume water jet. Avoid spreading burning liquid with water used for cooling purposes.

5.2 Special hazards arising from the substance or mixture
None inherent to this product.

Hazardous decomposition products formed during combusion
Carbon oxides, aldehydes, acids

5.1 Advice for firefighters
Evacuate area. Firefighters should use standard protective equipment and should use self-contained breathing apparatus in enclosed spaces. Use water spray to cool surfaces exposed to fire and to protect personnel.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Ensure adequate ventilation. Keep sources of ignition and hot metal surfaces isolated from spill.

6.2 Environmental precautions
Prevent product from entering drains, waterways, sewers, and soil. Stop spill at source and prevent further leakage or spillage if safe to do so. Notify proper authorities if product enters sewers or public waters.

6.3 Methods and material for containment and cleaning up
Flush spilled material into suitable retaining areas or containers. Small amounts of spilled material may be absorbed with standard absorbent such as sand, vermiculite, or diatomaceous earth. Confine spill and place into suitable closed container for disposal. Dispose of in accordance with regional, national, and local laws and regulations.

6.4 Reference to other sections
Section 7: safe handling. Section 8: personal and protective equipment. Section 10: incompatible materials. Section 13: disposal information. Section 16: full text of abbreviations.

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for safe handling

Use in a well ventilated area or use appropriate respirator when ventilation is inadequate. Do not breathe vapor. Wear personal protective clothing and equipment as indicated in Section 8. Eliminate all sources of ignition. Use explosion-proof equipment. Do not ingest. Use good industrial hygiene practices in handling this material. Do not smoke, eat or drink while using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and leaving work. Clean up spills as soon as they occur. Empty containers may contain residual amounts of this product and should be handled with care. Do not reuse containers.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a dry, cool and well-ventilated area away from direct sunlight. Avoid freezing. Store away from incompatible materials (see Section 10) and food and drink. Store in original container. Keep container tightly closed when not in use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Provide appropriate fire extinguishers and spill cleanup equipment in or near storage area. Keep unauthorized personnel away.

German regulations concerning the storage classification of hazards (LGK)

LGK 3: Flammable liquids

7.3 Specific end uses

See section 1.2

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Ingredients with limit values that require monitoring:

Ethanol
CAS No. 64-17-5

	LTEL - 8 hours		STEL - 15 minutes	
	ppm	mg/m³	ppm	mg/m³
Australia	1000	1880		
Austria	1000	1900	2000	3800
Belgium	1000	1907		
Canada - Ontario			1000	
Canada - Québec	1000	1880		
Denmark	1000	1900	2000	3800
Finland	1000	1900	1300	2500
France	1000	1900	5000	9500
Germany (AGS)	500	960	1000	1920
Germany (DFG)	200	380	800	1520

Hungary		1900		7600
Ireland			1000	
Latvia		1000		
New Zealand	1000	1880		
Poland		1900		
Romania	1000	1900	5000	9500
Singapore	1000	1880		
South Korea	1000	1900		
Spain			1000	1910
Sweden	500	1000	1000	1900
Switzerland	500	960	1000	1920
The Netherlands		260		1900
USA (NIOSH)	1000	1900		
USA (OSHA)	1000	1900		
United Kingdom	1000	1920		

Isopropyl alcohol
CAS No. 67-63-0

	LTEL - 8 hours		STEL - 15 minutes	
	ppm	mg/m³	ppm	mg/m³
Australia	400	983	500	1230
Austria	200	500	800	2000
Belgium	200	500	400	1000
Canada - Ontario	200		400	
Canada - Québec	400	983	500	1230
Denmark	200	490	400	980
Finland	200	500	250	620
France	--	--	400	980
Germany (AGS)	200	500	400	1000
Germany (DFG)	200	500	400	1000
Hungary		500		2000
Ireland	200		400	
Japan	400			
Japan (JSOH)	400	980		
Latvia		350		600
New Zealand	400	983	500	1230
People's Republic of China		350		700
Poland		900		1200
Romania	70	600	93	800
Singapore	400	983	500	1230
South Korea	200	480	400	980
Spain	200	500	400	1000
Sweden	150	350	250	600
Switzerland	200	500	400	1000
USA (NIOSH)	400	980	500	1225
USA (OSHA)	400	980		

United Kingdom	400	999	500	1250

n-Butanol
CAS No. 71-36-3

	LTEL - 8 hours		STEL - 15 minutes	
	ppm	mg/m³	ppm	mg/m³
Australia			50	152
Austria	50	150	200	600
Belgium	20	62		
Canada - Ontario	20			
Canada - Québec			50	152
Denmark	50	150	50	150
Finland	50	150	75	230
France			50	150
Germany (AGS)	100	310	100	310
Germany (DFG)	100	310	100	310
Hungary		45		90
Ireland	20			
Japan	25			
Japan (JSOH)	50	150		
Latvia		10		
New Zealand			50	150
People's Republic of China		100		
Poland		50		150
Romania	33	100	66	200
Singapore			50	152
South Korea	20	60		
Spain	20	61	50	154
Sweden	15	45	30	90
Switzerland	100	310	100	310
USA (NIOSH)			50	150
USA (OSHA)	100	300		
United Kingdom			50	154

Ingredients with biological monitoring guidance values (BMGV) and/or biological exposure index (BEI):

Isopropyl alcohol CAS No. 67-63-0

BMGV: 40 mg acetone/L urine (end of shift at end of workweek)

8.1 Exposure controls

Engineering controls

Provide adequate local exhaust ventilation. Use explosion-proof electrical/ventilating/lighting equipment. Maintain eye wash fountain and safety shower in work area.

Personal protective equipment

General protective and hygenic measures

Do not eat, drink, or smoke while using. Wash hands before breaks and at the end of workday. Immediately remove all soiled or contaminated clothing.

Eye and face protection

Chemical safety glasses with side shields, goggles or face shield are recommended. Eye wash stations are recommended for the work area.

Skin and body protection

Wear chemical resistant clothing and shoes. Safety showers are recommended for the work area.

Respiratory protection

Provide sufficient general and/or local exhaust. If engineering controls are not sufficient to protect worker health use a respirator approved under applicable regulatory standards.

Hand protection

Wear chemical resistant impervious gloves. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves.

Environmental controls

Prevent product from entering drains. Stop spill at source and prevent further leakage or spillage if safe to do so. If product contaminates rivers and lakes or drains, notify proper authorities.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid
Physical form	: Liquid
Colour	: Green or Clear
Odour	: Alcohol
Odour threshold	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Initial boiling point and boiling range	: 70 °C – 104 °C (158 °F – 220 °F)
Flammability	: Flammable liquid
Upper flammability limit	: 0.187
Lower flammability limit	: 0.033
Flash point	: 24 °C (76 °F)
Auto-ignition temperature	: 354 °C (670 °F)
Decomposition temperature	: 354 °C (670 °F)
pH	: 5.0 - 6.9
Viscosity	: 25 - 70 cP
Solubility (water)	: Fully soluble
Partition coefficient n-octanol/water (log value)	: No data available
Vapour pressure	: No data available
Relative density at 24 °C (water = 1)	: 0.94 - 0.98
Volatile organic compounds (VOC)	
VOC - actual	: 289 g/L
VOC less water & exempt solvents	: 730 g/L

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity

Not reactive under normal conditions of use.

10.2 Chemical stability

Stable under normal conditions of use.

10.3 Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4 Conditions to avoid
Avoid heat, sparks, open flames, hot surfaces, or other sources of ignition.

10.5 Incompatible materials
Strong oxidizing agents, acids, alkali materials

10.6 Hazardous decomposition products
Carbon oxides, aldehydes, acids

SECTION 11 – TOXICOLOGY INFORMATION

11.1 Information on toxicological effects

Acute toxicity : Not classified

LD/LC50 values that are relevant for classification:
Ethanol
CAS No. 64-17-5

Oral	LD50	rat	10740 mg/kg
Dermal	LD50	rabbit	> 16000 mg/kg

Isopropyl alcohol
CAS No. 67-63-0

Oral	LD50	rat	5045 mg/kg
Dermal	LD50	rabbit	12870 mg/kg
Inhalative	LC50	rat	73 mg/l/4h

n-Butanol
CAS No. 71-36-3

Oral	LD50	rat	790 mg/kg
Dermal	LD50	rabbit	3400 mg/kg
Inhalative	LC50	rat	24 mg/l/4h
Inhalative	LC50	rat	8000 ppm/4h

Skin corrosion/irritation : Expected to be slightly irritating
Serious eye damage/irritation : Expected to be slightly irritating
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity	: Not expected to be toxic.
12.2 Persistence and degradability	: Expected to be inherently biodegradable.
12.3 Bioaccumulative potential	: No data available
12.4 Mobility in soil	: No data available
12.5 Other adverse effects	: No data available
12.6 General notes	: No data available

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of in accordance with regional, national, and local laws and regulations.

Material disposal	: Do not dispose of waste into sewer. Do not contaminate ponds, waterways, or ditches with product or used container. Send to a licensed waste management company.
Container disposal	: Do not dispose of waste into sewer. Do not contaminate ponds, waterways, or ditches with product or used container. Send to a licensed waste management company

SECTION 14 – TRANSPORT INFORMATION

14.1 UN number

UN1987

14.2 UN proper shipping name

DOT	: ALCOHOLS, N.O.S.
ADR	: ALCOHOLS, N.O.S.
IMDG	: ALCOHOLS, N.O.S. (ethanol, isopropyl alcohol)
IATA	: ALCOHOLS, N.O.S. (ethanol, isopropyl alcohol)

14.3 Transport hazard class

3

14.4 Packing group

III

14.5 Environmental hazards

No

14.6 Special precautions for user
EmS: F-E, S-D
Stowage category: A
Kemler code: 30

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
Not applicable

14.8 Additional information
Limited Quantity: 5 L
Limited Quantity: 5 L
Tunnel code: D/E

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No information available for this material. Information provided is for components

OSHA Hazard Communication Standard
This material is hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200

Superfund Amendments and

Reauthorization Act (SARA) SARA

302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Hazard Categories
Fire hazard, immediate (acute) health hazard, delayed (chronic) health hazard

SARA 313 Components
Isopropyl Alcohol (CAS No. 67-63-0); n-Butanol (CAS No. 71-36-3)

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
n-Butanol (CAS No. 71-36-3); Reportable Quantity (RQ) = 5000 pounds

California Proposition 65
No chemicals in this material are subject to the reporting requirements of California Proposition 65

This product contains the following Right to Know components:

Component	U.S. State Right to Know list
Ethanol (CAS No. 64-17-5)	: Massachusetts, New Jersey Pennsylvania
Isopropyl Alcohol (CAS No. 67-63-0)	: Massachusetts, New Jersey, Pennsylvania
n-Butanol (CAS No. 71-36-3)	: Massachusetts, New Jersey, Pennsylvania

International Agency for Research on Cancer (IARC)

This product contains the following chemicals classified by IARC as carcinogenic:
Isopropyl alcohol
CAS No. 67-63-0
Group 3

Chemical inventories

Components are listed or exempted from listing on the following chemical inventories:

AICS	Australian Inventory of Chemical Substances
DSL / NDSL	Domestic Substances List / Non-Domestic Substances List
EINECS	European Inventory of Existing Commercial Chemical Substances
ENCS	Existing and New Chemical Substances
IECS	Inventory of Existing Chemical Substances Produced or Imported in China
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substances Control Act

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this product

SECTION 16 – OTHER INFORMATION

Revision Date

3/22/2023

Abbreviations and acronyms

Acute Tox. 4	Acute toxicity - Category 4
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AGS	Committee on Hazardous Substances
CAS	Chemical Abstract Service
DFG	German Research Foundation
DOT	U.S. Department of Transportation
EmS	Emergency Response Procedures for Ships Carrying Dangerous Goods
Eye Dam. 1	Eye damage - Category 1
Flam. Liq. 3	Flammable liquids - Category 3
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
JSOH	Japanese Society for Oral Health
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
LTEL	Long term exposure limit
NIOSH	National Institute for Occupational Safety and Health
OSHA	U.S. Occupational Safety and Health Administration
OSHA HCS	U.S. Occupational Safety and Health Administration Hazard
Communication Standard PBT	Persistent, Bioaccumalative and Toxic
Skin Irrit. 2	Skin corrosion/irritation - Category 2
STEL	Short term exposure limit
STOT SE 3	Specific target organ toxicity (single exposure) - Category 3
vPvB	very Persistent and very Bioaccumulative

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with **Fibre Glast Developments Corporation** or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.