



GHS SAFETY DATA SHEET (SDS)

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Parts #264 and #266 BPO Hardener

FIBRE GLAST DEVELOPMENTS CORP.
385 CARR DRIVE
BROOKVILLE, OH 45309

TELEPHONE: (937) 833-5200
FAX: (937) 833-6555
**FOR CHEMICAL EMERGENCY
CALL (800) 424-9300 24 HRS.**

Other Identification: Peroxide Cream Hardener, Organic Peroxide, Type E, 50% in inert fillers

RECOMMENDED USE: Standard Composite Manufacturing

SECTION 2 - HAZARDS IDENTIFICATION

Physical Hazards	Organic peroxides	Type E
Health Hazards	Serious eye damage/eye irritation Sensitization, skin	Category 2 B Category 1
Environmental Hazards	Hazardous to the aquatic environment, acute hazard	Category 1
OSHA defined hazards	Not classified.	

Label elements



Signal Word

: WARNING

Hazard statement

: Heating may cause a fire. May cause an allergic skin reaction. Causes eye irritation. Very toxic to aquatic life.

Precautionary statement

Prevention

: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Keep/Store away from clothing and other combustible materials.
Keep only in original container. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling.
Contaminated work clothing must not be allowed

out of the workplace. Avoid release to the environment. Wear protective gloves/eye protection/face protection.

Response	: If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Wash contaminated clothing before reuse. Collect spillage.
Storage	: Protect from sunlight. Store at temperatures not exceeding 25 °C/77 °F. Keep cool. Store away from other materials.
Disposal	: Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise Classified (HNOC)	: None known.
Supplemental information	: 30% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Chemical Name	Common Name and Synonyms	CAS Number	%
Benzoyl peroxide		94-36-0	50 to <60
Zinc Stearate		557-05-1	5 to <10
Calcium Sulfate Dihydrate		7778-18-9	1 to <5
Other components below reportable levels			40 to <50

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

SECTION 4 – FIRST AID MEASURES

Inhalation	: Call a physician if symptoms develop or persist.
Skin contact	: Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders; Seek medical attention and take along these instructions.
Eye contact	: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion	: Get medical attention if irritation develops and persists. : Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/ Effects, acute and delayed	: Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical Attention and special treatment Needed	: Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information	: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.
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SECTION 5 – FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	: Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	: During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Firefighting Equipment/instructions	: In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire.
Specific methods	: Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	: Heating may cause a fire.

SECTION 6 –ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for Containment and cleaning up	<p>: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.</p> <p>Large spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.</p> <p>Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>

Environmental precautions

: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling

: When using do not smoke. Keep away from clothing and other combustible materials. Keep away from heat, sparks and open flame. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

**Conditions for safe storage,
Including any incompatibilities**

: Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight.
Keep only in original container. Store away from other materials.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	CAS No.	Type	Value	Form
Benzoyl peroxide	94-36-0	PEL	5 mg/m ³	
Calcium Sulfate Dihydrate	7778-18-9	PEL	5 mg/m ³ 15 mg/m ³	Respirable fraction. Total dust.
Zinc Stearate	557-05-1	PEL	5 mg/m ³ 15 mg/m ³	Respirable fraction. Total dust.

US. ACGIH Threshold Limit Values

Components	CAS No.	Type	Value	Form
Benzoyl peroxide	94-36-0	TWA	5 mg/m ³	
Calcium Sulfate Dihydrate	7778-18-9	TWA	10 mg/m ³	Inhalable fraction.
Zinc Stearate	557-05-1	TWA	10 mg/m ³	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	CAS No.	Type	Value	Form
Benzoyl peroxide	94-36-0	TWA	5 mg/m ³	
Calcium Sulfate Dihydrate	7778-18-9	TWA	5 mg/m ³ 10 mg/m ³	Respirable. Total.
Zinc Stearate	557-05-1	TWA	5 mg/m ³ 10 mg/m ³	Respirable. Total.

Biological limit values

: No biological exposure limits noted for the ingredient(s).

Exposure guidelines

: Occupational Exposure Limits are not relevant to the current physical form of the product.

Appropriate engineering : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions.

Individual protection measures, such as personal protective equipment

Eye/Face protection : Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection

: Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

: Wear appropriate chemical resistant clothing.

Respiratory protection

: In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

: Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

: When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

SECTION 9 –PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state

: Solid.

Form

: Solid. Paste Paste.

Color

: Red, White, Black, or Blue

Odor

: Not available.

Odor threshold

: Not available.

pH

: Not available.

Melting point/freezing point

: Not available.

Initial boiling point and boiling range

: Not available.

Flash point

: Not available.

Evaporation rate

: Not available.

Flammability (solid, gas)

: Not available.

Upper/lower flammability or explosive limits

Flammability limit – lower (%)

: Not available.

Flammability limit – upper (%)

: Not available.

Vapor pressure

: 0.0002 hPa estimated

Vapor density

: Not available.

Relative density

: Not available.

Solubility(ies)

Solubility (water)

: Not available.

Partition coefficient (n-octanol/water)

: Not available.

Auto-ignition temperature

: Not available.

Decomposition temperature

: 122 °F (50 °C) SADT

Viscosity

: Not available.

Other information

Density

: 9.98 lbs./gal

Percent volatile

: 20% estimated

Specific gravity

: 1.2

SECTION 10 – STABILITY AND REACTIVITY

Reactivity	: The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Material is stable under normal conditions.
Possibility of hazardous reactions	: Hazardous polymerization does not occur.
Conditions to avoid	: Avoid heat, sparks, open flames and other ignition sources. Sunlight. Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.
Incompatible materials	: Acids. Strong oxidizing agents. Combustible material. Amines. Alcohols.
Hazardous decomposition products	: No hazardous decomposition products are known.

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	: No adverse effects due to inhalation are expected.
Skin contact	: May cause an allergic skin reaction.
Eye contact	: Causes eye irritation.
Ingestion	: Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics	: Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause and allergic skin reaction. Dermatitis. Rash.
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Information on toxicological effects

Acute toxicity	: May cause an allergic skin reaction.
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Components	Species	Test Results
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Benzoyl peroxide (CAS 94-36-0)

Acute

Oral

LD50

Rat

7710 mg/kg

*Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	: Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	: Causes eye irritation.

Respiratory or skin sensitization

Respiratory sensitization	: Not a respiratory sensitizer.
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Skin sensitization	: May cause an allergic skin reaction.
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Germ cell mutagenicity	: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
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Carcinogenicity	: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
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IARC Monographs. Overall Evaluation of Carcinogenicity

Benzoyl peroxide (CAS 94-36-0)	3 Not classifiable as to carcinogenicity to humans. OSHA Specifically Regulated Substances (29 CFR 1910.1001.1050)
Not listed.	

Reproductive toxicity	: This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	: Not classified.
Specific target organ toxicity - repeated exposure	: Not classified.
Aspiration hazard	: Not an aspiration hazard.

SECTION 12 – ECOLOGICAL INFORMATION

Eco toxicity : Very toxic to aquatic life.

Components	Species	Test Results
Calcium Sulfate Dihydrate (CAS 7778-18-9)	Aquatic Fish LC50	Fathead minnow (Pimephales promelas) > 1970 mg/l, 96 hrs

*Estimates for product may be based on additional component data not shown.

Persistence and degradability : No data available on the degradability of this product.

Bio accumulative potential

Partition coefficient n-octanol/water (log Kow)

Benzoyl peroxide 3.46

Mobility in soil : No data available.

Other adverse effects : No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation, potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal instructions : Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations : Dispose in accordance with all applicable regulations.

Hazardous waste code : The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues/unused products : Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging : Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14 – TRANSPORT INFORMATION

DOT

UN number : UN3108
UN proper shipping name : ORGANIC PEROXIDE TYPE E, SOLIC (<52% Dibenzoyl Peroxide as a paste) (Benzoyl peroxide)
Transport hazard class(es)
 Class : 5.2
 Subsidiary risk : -
 Label(s) : 5.2
Packaging group : No applicable.
Environmental hazards
 Marine pollutant : Yes
Special precautions for user : Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number : UN3108
UN proper shipping name : Organic peroxide type E, solid (<52% Dibenzoyl Peroxide as a paste)
Transport hazard class(es)
 Class : 5.2
 Subsidiary risk : -
Packing group : Not applicable
Environmental hazards : No
ERG Code
Special precautions for user : Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft : Allowed.
Cargo aircraft only : Allowed.

IMDG

UN number : UN3109
UN proper shipping name : ORGANIC PEROXIDE TYE E, SOLID (<52% Dibenzoyl Peroxide as a paste)
Transport hazard class(es)
 Class : 5.2
 Subsidiary risk : -
Packing group : Not applicable.
Environmental hazards
 Marine pollutant : Yes
EmS : F-J, S-R
Special precautions for user : Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

DOT; IATA



IMDG



Marine pollutant



General Information

: DOT Regulated Marine Pollutant. IMDG Regulated Pollutant.

SECTION 15 – REGULATORY INFORMATION

US Federal Regulations

: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Zinc Stearate (CAS 557-05-1)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

: Immediate Hazard – Yes
Delayed Hazard – No
Fire Hazard – No
Pressure Hazard – No
Reactivity Hazard – No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous Chemical

: No

SARA 313 (TRI reporting)

Components	CAS number	% by wt.
Benzoyl peroxide	94-36-0	50 to <60
Zinc Stearate	557-05-1	5 to <10

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112® Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US State regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTD – Substance List

Benzoyl peroxide (CAS 94-36-0)

Calcium Sulfate Dihydrate (CAS 7778-18-9)

Zinc Stearate (CASE 557-05-1)

US. New Jersey Worker and Community Right-to-Know Act

Benzoyl peroxide (CAS 94-36-0)

Calcium Sulfate Dihydrate (CAS 7778-18-9)

Zinc Stearate (CAS 557-05-1)

US. Pennsylvania Worker and Community Right-to-Know Law

Benzoyl peroxide (CAS 94-36-0)

Calcium Sulfate Dihydrate (CAS 7778-18-9)

Zinc Stearate (CAS 557-05-1)

US. Rhode Island RTK

Benzoyl peroxide (CAS 94-36-0)

Zinc Stearate (CAS 557-05-1)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US – California Proposition 65 – CRT: Listed date/Carcinogenic substance

C.I. Pigment Yellow 13 (CAS 5102-83-0)

Listed: October 1, 1992

International inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16 – OTHER INFORMATION

HMIS® Ratings

Health: 2
Flammability: 0
Physical hazard: 0
Personal protection: D

NFPA Ratings

Health: 2
Flammability: 0
Instability: 0

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.