



FIELD-APPLIED COMPOSITE SYSTEMS LLC
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SAFETY DATA SHEET

PowerSleeve™ Standard Matrix-Part A

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

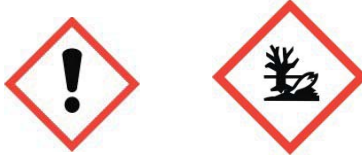
PRODUCT NAME: PowerSleeve™ Standard Matrix-Part A
MFR'S NAME: Field-Applied Composite Systems LLC, 925 North Todd Avenue, Azusa CA 91702
EMERGENCY PHONE: 800.424.9300 (CHEMTREC) **GENERAL INFORMATION:** 626.633.0294
USE OF THE SUBSTANCE: Epoxy resin used with fiberglass or carbon fabric for the repair of pipelines or other structures.

SECTION 2: HAZARDS IDENTIFICATION

OSHA/HCS status: Not regulated.

GHS Label Elements:

Hazard Pictograms:



Signal Word: Warning!

Hazard Statements and GHS Classifications:

H315	Causes skin irritation.	Category 2
H317	May cause an allergic skin reaction.	Category 1
H319	Causes serious eye irritation.	Category 2
H411	Toxic to aquatic life with long lasting effects.	Category 2, Chronic

Precautionary Statements:

Prevention:

- P261: Avoid breathing fumes, vapors, mist or spray.
- P264: Wash hands thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P271: Use only outdoors or in a well-ventilated area.
- P273: Avoid release to the environment.
- P280: Wear protective clothing, gloves and eye protection.

Responses:

- P301+P312: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call POISON CENTER or doctor if you feel unwell.
- P302+P352+P333+P313: IF ON SKIN: Rinse skin with water/shower and wash with plenty of soap and water. If skin irritation or rash occurs, get medical attention.
- P362+P364: Take off contaminated clothing and wash it before reuse.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+F313: If eye irritation persists, get medical attention.
- P391: Collect spillage.

Storage: P403+P233: Store in a well-ventilated place. Keep containers tightly closed.

P405: Store in a secure area.

Disposal: P501: Dispose of contents and containers in accordance with all local, regional and international regulations.

Other Hazards: None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

CHEMICAL NAME	CAS NUMBER	CONTENT
Bisphenol-A Reaction Product and Epoxy Resin	25085-99-8	>75%
Proprietary Ingredients	Trade Secret	<25%

Occupational Exposure Limits, if available, are listed in Section 8.

SECTION 4: FIRST AID MEASURES

Description of necessary first aid measures:

General	Get medical attention immediately for any person who is having trouble or not breathing, or any unconscious person. Provide oxygen or artificial respiration to a person if they have trouble breathing. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Place an unconscious person in a recovery position, maintain an open airway and loosen tight clothing.
Inhalation	Remove victim to fresh air and keep warm and at rest in a position comfortable for breathing. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin Contact	Remove contaminated clothing and shoes. Wash the affected area with plenty of soap and water until no evidence of the chemical remains (at least 15-20 minutes). Launder clothing before reuse. Get medical attention if irritation persists. Heavily soiled clothing or footwear should be disposed of properly.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids and rolling eyes in a circular motion. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes, or longer if there is any indication that material remains in the eye. Get medical attention if irritation persists.
Ingestion	Wash out mouth with water. Remove dentures, if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. DO NOT induce vomiting. Get medical attention if discomfort persists.

Most Important Symptoms/Effects, Acute and Long –Term:

Potential Acute Health Effects:

Inhalation	Gas or vapor in high concentrations may irritate respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed after exposure. Harmful if inhaled in high airborne concentrations. Persons with sensitive airways (e.g., asthmatics) may react to vapors.
Skin Contact	May cause skin irritation. May cause an allergic skin irritation or aggravate existing conditions through prolonged/repeated contact.
Eye Contact	Irritating and may cause redness and pain.
Ingestion	May cause discomfort if swallowed.

Overexposure Signs/Symptoms:

Inhalation No specific data.

Skin Contact Adverse symptoms may include the following: Irritation and/or Redness.

Eye Contact Adverse symptoms may include the following: Pain or Irritation. Watering. Redness.

Ingestion No specific data.

Indication of Immediate Medical Attention and/or Special Treatment needed:

Notes to Physician Treat symptomatically.

Specific Treatments No specific treatment(s).

See also Toxicological Information in Section 11.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media Dry chemicals, foam, water spray or carbon dioxide.

Unsuitable Media Water jet.

Specific Hazards Material is not considered a fire or explosion hazard but will burn if ignited. Closed containers may rupture due to pressure build-up when exposed to extreme heat. Containers should be sprayed with water if possible to avoid this.

National Fire Protection Association (USA):

Labeling: Health: 1 Fire: 1 Reactivity: 0

Hazardous Thermal Decomposition Products

Irritating or toxic substances may be emitted upon burning or decomposition. See **Section 10** for additional information.

Special Protective Actions for Fire Fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special Protective Equipment for Fire Fighters

Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure mode during the attack phase of firefighting operations. During cleanup, if area is poorly ventilated, SCBA should be used.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Keep unauthorized persons away. Provide adequate ventilation and avoid breathing vapors. Put on appropriate personal protective equipment (see **Section 8**). If spilled in an enclosed area, ventilate area or use SCBA. Remove potential ignition sources.

Environmental Precautions

Avoid dispersal of material and runoff from contact with soil, waterways, drains and/or sewers.

Methods and Materials for Containment and Cleaning Up (Small or Large Spill)

Stop leak if possible without risk. Move containers from spill area. Absorb spilled material with vermiculite, dry sand or earth and put into containers and dispose of via a licensed waste disposal contractor. Clean spillage area with solvents or plenty of water. Do not allow runoff into sewers or water courses

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling/Personal Hygiene

Use appropriate personal protective equipment as per **Section 8**. Keep in the original container or an approved alternative; keep containers tightly closed when not in use. Do not reuse containers.

Keep away from heat, sparks and open flame. Eating, drinking and/or smoking should be prohibited where this material is being used. Workers should remove contaminated clothing/protective equipment and wash hands and face and before entering eating areas and eating, drinking and/or smoking.

Conditions for Safe Storage, including any Incompatibilities

Store in sealed original containers, or approved alternatives, when not in use in a dry, well-ventilated area. Protect containers from direct sunlight in a dry, cool and well ventilated area between 15°C 40°C (~110°F). Do not reuse containers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Occupational Exposure Limits:

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>ACGIH TWA</u>	<u>ACGIH -STEL</u>
Bisphenol-A Reaction Product and Epoxy Resin	25085-99-8	N/A	N/A

Appropriate Engineering Controls

Good general ventilation should be sufficient to control worker exposure to any airborne contaminants. If working in enclosed spaces, provide additional local ventilation. Eyewash fountains and safety showers are recommended, as well as good laboratory procedures and care.

Exposure controls

Respiratory Protection

If necessary, a properly-fitted vapor mask/respirator complying with an approved standard or SCBA should be used.

Hand Protection

Chemical-resistant (impervious) gloves (such as nitrile rubber of .35mm thickness or similar) should be worn when handling this material. Contaminated gloves should be disposed of properly.

Body Protection

Chemically resistant long-sleeved shirts and long pants or lab coats are recommended. Contaminated clothing should be washed separately from other clothes before reuse. Footwear appropriate for the work being performed should be worn and cleaned carefully if contaminated, before reuse. Heavily soiled clothing or shoes should be discarded.

Eye/Face Protection

Safety eyewear and face shields appropriate for the work being performed should be used. Ordinarily, this means a minimum of safety eyewear or splash goggles.

General

Use good laboratory/workplace procedures. Easy access to eyewash fountains and/or safety showers is recommended.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Color:	Clear syrup
Odor:	Slightly sweet	Odor Threshold:	N/A
pH	N/A	Melting Point:	N/A
Boiling Point:	N/A	Flash Point:	~177°C (~350°F)

Evaporation Rate:	N/A	Vapor Pressure/Density:	<1mm Hg @ 20°C Heavier than air.
Relative Density	1.16	Viscosity:	3,000 cP @25°C
Auto-Ignition Temp.	~300°C (~570°F)	Decomposition Temp.	N/A
Upper/Lower Flammability or Explosive Limits		N/A	
Solubility: Slight (Partition Coefficient: N/A)			
VOC Content: None.			

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Exothermic reactions including polymerization may occur in contact with amines, strong acids, bases and/or oxidizing agents, epoxy hardeners (in uncontrolled conditions) and excessive heat.

Chemical Stability: This product is stable under normal conditions.

Possibility of Hazardous Reactions: See "Reactivity" above for cautions.

Conditions to Avoid: Avoid excessive heat for prolonged periods.

Incompatible Materials: Strong acids, bases and oxidizing agents, and amines.

Hazardous Decomposition Products: Thermal decomposition may produce smoke, oxides of carbon and nitrogen, and other products of incomplete combustion.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

CHEMICAL NAME	LC ₅₀ INHALATION (RAT)	LD ₅₀ ORAL (RAT)	LD ₅₀ DERMAL (RABBIT)
Bisphenol-A Reaction Product and Epoxy Resin	Not available	Not available	Not available

Skin Corrosion/Irritation: Skin Irritation-Category 2

Serious Eye Damage/Irritation: Eye Irritation-Category 2

Respiratory or Skin Sensitization: Sensitization-Category 1

Mutagenicity: No specific data. **Carcinogenicity:** No specific data.

Reproductive Toxicity: No specific data. **Teratogenicity:** No specific data.

Aspiration Hazard: No specific data.

Specific Target Organ Toxicity (Single and Repeated Exposure): No specific data.

Information on the Likely Routes of Exposure: Eyes, skin, inhalation and ingestion.

Potential Acute Health Effects and Related Symptoms:

See **Section 4**.

Delayed, immediate and chronic effects from short and long term exposure:

Some persons may become sensitized after chronic exposure and may exhibit moderate to severe allergic reactions when exposed.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity:

CHEMICAL NAME

Bisphenol-A Reaction Product and Epoxy Resin: No specific data is available. Material may be toxic to aquatic organisms.

Persistence and Degradability:

CHEMICAL NAME

Bisphenol-A Reaction Product and Epoxy Resin No specific data. Not readily biodegradable, based on similar materials.

Bioaccumulative Potential:

CHEMICAL NAME	Log K _{ow}	BCF	POTENTIAL
Bisphenol-A Reaction Product and Epoxy Resin	N/A	N/A	Low, based on similar materials.

Mobility in Soil: Soil/Water Partition Coefficient (K_{oc})

Bisphenol-A Reaction Product and Epoxy Resin	N/A
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Other Adverse Effects: Other information is not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of unused contents (incineration) in accordance with national and local regulations. Dispose of container in accordance with national and local regulations. Ensure the use of properly authorized waste management companies, where appropriate. See **Section 8** for recommendations on the use of personal protective equipment.

SECTION 14: TRANSPORTATION INFORMATION

UN No's: DOT/TDG/IMDG/IATA: Not regulated.

DOT/TDG/UN Proper Shipping Name: Not regulated.

Hazard Classes: N/A-not regulated.

Hazard Labels: N/A-not regulated.

Pack Groups: N/A-not regulated.

Environmental Hazards: **Marine Pollutant:** No. **Hazardous Substance (USA):** No.

Special Precautions for User: No information is available.

Transporting in Bulk per Annex II of MARPOL73/78 and IBC: No information is available. Components have no reportable quantity thresholds.

Label for Conveyance: N/A-not regulated.

SECTION 15: REGULATORY INFORMATION

International and US Inventory Lists

Canada Inventory (DSL)	All components are listed or exempt	EU-ELINCS	Not listed.*
Canada Inventory (NDSL)		EU-EINECS	Not listed.*
US Toxic Substances Control Act (TSCA)		REACH, Annex XIV and Annex XVII	Not listed*
Korea, Philippines and Australia Lists			

***Note:** There is no listing on the public inventory, no information is available or the component has not been reviewed.

Substances of Very High Concern: None of the components are listed. Components are not listed as CA Prop 65 chemicals nor are they on any State Right to Know listings.

OSHA: 29 CFR 1910.1200 Hazardous Chemical-"Irritant", "Sensitizer".

SARA: Section 311/312: Immediate Health Hazard. Section 313: Not listed.

Other Information: N/A

SECTION 16: OTHER INFORMATION

ABBREVIATIONS:

ACGIH: American Conference of Governmental Industrial Hygienists
ADR/RID: European dangerous goods transport, road and rail, regulations
CAS: Chemical Abstract Service Registry
DOT: Department of Transportation (U.S.)
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods code
OEL: Occupational Exposure Limits
OSHA: Occupational Safety and Health Administration (U.S.)
PEL: Permissible Exposure Limit
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit (15 minute Time Weighted Average)
TDG: Canadian Transportation of Dangerous Goods Act and Regulations
TPQ: Threshold Planning Quantity
RQ: Reportable Quantity
UN: United Nations
U.S.: United States
N/A: Not available or not applicable.

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Revision: 0
Reason for Revision: N/A

Notice:

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