



686, SAMPYEONG-DONG, BUNDANG-GU,
SEONGNAM-SI, GYEONGGI-DO 135-283, KOREA
TEL : +82-2-2008-2454 FAX: +82-2-2008-2379

MATERIAL SAFETY DATA SHEET

MSDS No. : SK GEP-01

Date of amendments : JUN 20, 13

SECTION 1. IDENTIFICATION OF SUPPLIER AND CHEMICAL

Manufacturer's Company

Information	: Composites Materials Business Unit
Address	: 686, Sampyeong-Dong, Bundang-gu, Seongnam-si, Gyeonggi-Do 135-283, Korea
Phone	: +82-2-2008-2454
Fax	: +82-2-2008-2379
Product Name	: SK Glass Fiber Prepreg (SKR H18 Resin Matrix)
Chemical Family	: Formulated Epoxy Resin Impregnated Material with Glass Fiber
Recommend ation for Use	: Structural Material use, Sports & Leisure

SECTION 2. HAZARS IDENTIFICATION

NFPA Class(0-4 class) : Health = 0, fire = 1, Reactivity = 1

GHS Classification

Physical Hazards

Explosives	: Classification not applicable
Flammable Gases	: Classification not applicable
Flammable Aerosols	: Classification not applicable
Oxidazing Gases	: Classification not applicable
Gas Under Pressure	: Classification not applicable
Flammable Liquids	: Classification not possible
Flammable Solids	: Classification not possible
Self-Resactive Substances and Mixtures	: Classification not applicable
Prrophoric Liquids	: Classification not applicable
Prrophoric Solids	: Classification not applicable
Self-Heating Substances and Mixtures	: Classification not possible
Substances and Mixtures, Which in Contact with Water, Emit Flammable Gases	: Classification not possible
Oxidizing Liquids	: Classification not applicable
Oxidizing Solids	: Classification not applicable
Organic Peroxides	: Classification not possible
Corrosive to Metals	: Classification not possible

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Health and Environmental Hazards

Acute Toxicity-Oral	: Not classified
Acute Toxicity-Skin	: Not classified
Acute Toxicity-Inhalation(gases)	: Classification not applicable
Acute Toxicity-Inhalation(Steam)	: Classification not possible
Acute Toxicity-Inhalation(Vapor)	: Classification not possible
Acute Toxicity-Inhalation(Fine Particle, Mist)	: Classification not possible
Skin Corrosion/Irritation	: Category 3
Serious Sys Damage/Eye irritation	: Not classified
Respiratory Sensitization	: Classification not possible
Skin Sensitization	: Category 1
Germ Cell Mutagenicity	: Classification not possible
Carcinogenicity	: Classification not possible
Toxic to Reproduction	: Classification not possible
Specific Target organ systemic Toxicity (Single Exposure)	: Classification not possible
Specific Target organ systemic Toxicity (Repeated Exposure)	: Classification not possible
Aspiration Hazard	: Classification not possible
Aquatic Toxicity(Acute)	: Category 1
Aquatic Toxicity(Chronic)	: Category 1

Label Pictogram



Elements

Signal Word	: warning
Hazard Statement	: may be harmful in contact with skin.
Effect of Overexposure(Skin)	: prolonged or repeated contact may cause skin irritation or allergic reactions in sensitive individuals.
Effect of Overexposure(Eyes)	: may cause irritation or inflammation.
Precautionary Statements	: call a doctor if you feel unwell.
	: wear protective gloves/clothing and eye/face protection.
	: avoid release to the environment.
	: wash thoroughly after handling.



Safety overalls must be worn



Respiratory equipment must be worn



Safety gloves must be worn



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENT

	WT%	CAS No.
Fiber		
Glass Fiber	40 ~ 80	-
Formulated Resin		
Epoxy, Diglycidyl Ether of Bisphenol A(Liquid)	5 ~ 15	25068-38-6
Epoxy, Diglycidyl Ether of Bisphenol A (Solid)	5 ~15	25036-25-3
Other Formulated Epoxy Resin	5 ~ 15	Trade Secret
Formulated Hardener	0.5 ~ 10	Trade Secret

Raw Material's Hazard Identification




Epoxy Resin

Hazard-Risk Classification	: No Data
Label Elements Including Precautionary Statements	
Symbol	: No Data
Signal Word	: No Data
Hazard-Risk Statement	
Prevention	: No Data
Response	: No Data
Strage	: No Data
Disposal	: No Data
Other Hazard-Risk Which are not Included in The Classification Criteria	
Health	: 1
Fire	: 1
Reactivity	: 0

Hardener

Classification of the Substance or Mixture	
Classification According to Regulation (EC) No. 1272/2008(CLP/GHS)	
Classification	: Acute Tox. 4, H302
	: Carc. 2, H351
	: STOT RE 2, H373
	: Aquatic Acute 1, H400
	: Aquatic Chronic 1, H410
Human Health Hazards	: Harmful if Swallowed Limited Evidence of a Carcinogenic Effect
Environmental Hazards	: Very Toxic to Aquatic Organism, May Cause Long-Term Adverse Effects in the Aquatic Environment.

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Symbol	  
Signal Word	: Warning
Hazard-Risk Statement	
Prevention	: Do not Breathe Dust. Wear Protective Glove and Face Protection.
Response	: If Swallowed : Get Immediate Medical Attention.
Strage	: Not Applicable.
Disposal	: Dispose of Contents ans Container in Accordance with all Local, Regional, National Regulations.
Other Hazard-Risk Which are not Included in The Classification Criteria	
Substance Meets the Criteria For PBT According to Regulation (EC) No. 1207/2006, : No Annex 13	
Substance Meets the Criteria For vPvB According to Regulation (EC) : No No. 1207/2006, Annex 13	
Other Hazards Which Do not Result in Classification	: Not Available

SECTION 4. FIRST AID MEASURES

Eye (Contact)	: Flush Eyes with Water for 15 minutes Seek Medical Attention if Symptoms Persist .
Skin (Contact)	: Wash with Copious Amounts of Soap and Water. Wash Contaminated Clothing Before Wearing .
Ingestion (Swallowing)	: If Significant Quantity Has Been Swallowed, Give Two Glasses of Water and Induce Vomiting. Seek Medical Attention.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point	: Not Applicable
Flammable Limit	: Not Applicable
Extinguishing Media Suitable Extinguishing Media	: In Case of Fire. Use Water Spray(Fog), Dry Chemical, Foam or Carbon Dioxide
Unusual Fire and Explosion Hazard	: None Known
Special Fire Fighting Procedure	: Promptly Isolate The Scene by Removing all Persons From the Vicinity of The Incident If There is a Fire. Self-Contained Breathing Apparatus and Protective Clothing Should Be Worn in Case of Fires
Special Protective Equipment For Fire-Fight	: Fire-Fighter Should Wear Appropriate Protective Equipment and Self- Contained Breathing Apparatus with a Full Face-Piece operated in Positive Pressure Mode

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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	: Wear Suitable Protection Clothing, Gloves and Eye/Face Protection. Use Self-Contained Breathing Apparatus and Chemically Protective Clothing. Evacuate Personnel to Safe Areas.
Environmental Precautions	: Prevent Product From Entering Drains.
Waste Disposal Method	: Bury in The Designated Ground in Accordance With Local and National Regulations. Do not Incinerate It. Incineration May Generate Airborne Fibers Which May Cause Electrical Malfunctions

SECTION 7. HANDLING AND STORAGE

Precaution to be taken in Handling and Storage	: Materials Should be Sealed Against Contamination From Dirt and Moisture. Store Below 39°F.
Other Precautions	: Carbon Fiber is Electrically Conductive. It May Cause Short Circuits of Electric Apparatus, Especially When Airborne Fibers are Drifting in The Circumference
Personal Precautions	: Wear Suitable Protection Clothing, Gloves and Eye/Face Protection. Use Self-Contained Breathing Apparatus and Chemically Protective Clothing. Evacuate Personnel to Safe Areas.
Environmental Precautions	: Prevent Product From Entering Drains.
Waste Disposal Method	: Bury in The Designated Ground in Accordance With Local and National Regulations. Do not Incinerate It. Incineration May Generate Airborne Fibers Which May Cause Electrical Malfunctions

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection	: Vapor Respirator is Recommended When Heated to 120°F or Above.
Ventilation	: Adequate Ventilation is Recommended While Machining Cured Product.
Protection Gloves	: Protective Gloves  <small>Safety gloves must be worn</small> Rubber or Plastic Gloves Should be Worn at All Times While Handling This Material.
Eye Protection	: Safety Goggles  <small>Respiratory equipment must be worn</small> Safety Glasses and/or Goggles Should be Worn While Machining Cured Product.
Other Protective Equipment	: Eye Wash Fountains, Creams For Epoxy Resin.



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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	: Not Applicable
Vapor Pressure(mmHg)	: Not Applicable
Vapor Density(air=1)	: Not Applicable
Solubility in Water	: Not Applicable
Specific Gravity(H ₂ O=1)	: Not Applicable
Percent Volatile	: < 1%
Evaporation Rate	: Not Applicable
Appearance and Odor	: Black, Resin Impregnated Material, Practically Odorless.

SECTION 10. STABILITY AND REACTIVITY

Stability	: Stable But Has Reactivity.
Conditions to Avoid	: Avoid Excess Heat.
Incompatibility(Materials to Avoid)	: Strong Acids, Bases, Oxidizing Agent.
Hazardous Decomposition Products	: May Form Toxic Materials, Avoid Inhalation.
Hazardous Polymerization	: Will Not occur
Conditions to Avoid	: Not Anticipated

SECTION 11. TOXICOLOGY INFORMATON

Ingestion/Inhalation	: Not Available
Subacute/ Chronic toxicity	: Not Available
Mutagenic/Next Generation Effect	: Not Available
Carcinogenic Effects	: Not Available
Etc. Uniqueness	: Prolonged or Repeated Contact May Cause Skin Irritation or Allergic Reactions in Sensitive Individual.

SECTION 12. ECOLOGICAL INFORMATON

Aquatic Toxicity/Ecotoxicological	: Not Available
Mobility in the Soil	: Not Available
Persistence/Degradability	: Not Available
Bio Accumulative Potential	: Not Available



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SECTION 13. DISPOSAL CONSIDERATION

Methods of Disposal	: Do not Inciaerate, May be Land Filled in Accordance With National and Local Regulations. Do not Dump This Product in to Sewers, on The Ground or Into Any Body of Water.
Disposal Considerations	: Fiber Dust is Occurred Electrical Equipment Failure.

SECTION 14. TRANSPORTATION INFORMATION

Classification and Regulation	
By Danger Material Ship Transport and Storage Rules	: Not Applicable
Precautions of Transportation	: Refer to Section 7

SECTION 15. REGULATORY INFORMATION

Regulation of Occupation Safety and Health Acts	: Not Applicable
Regulation of Harmful Chemical Substance	: Not Applicable
Application of Foreign Law	: Not Applicable

SECTION 16. OTHER INFORMATION

We believe the information on this data sheet is correct to the best of our current knowledge. However, no warranty is made with respect to its completeness. This material safety data sheet does not anticipate all the situation in which this material is processed or all the physical and mental characteristics of each individual who is involved in the processing.