

### SAFETY DATA SHEET VT-441PP / VT-441V PP

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification		
Product identifier		
Product name	VT-441PP / VT-441V PP	
Synonyms; trade names	Prepreg with Environmentally Friendly FR4 Epoxy Resin.	
Recommended use of the chemical and restrictions on use		
Application	Production of printed circuit board materials.	
Details of the supplier of the safety data sheet		
Supplier Manufacturer	Ventec USA LLC 311 S. Highland Ave Fullerton, CA 92836 714-773-9621 SalesWest@ventec-usa.com Ventec Electronics (Suzhou) Co. Ltd. 308, TaiShan Road,	
	New District Suzhou, Jiangsu, P.R.China 215129 sales@ventec.com.cn	
Emergency telephone number	0086-512-68091810	
Emergency telephone	0000-512-00091010	
2. Hazard(s) identification		
Classification of the substance	e or mixture	
OSHA Regulatory Status	This Product is Not Hazardous under the OSHA Hazard Communication Standard.	
Physical hazards	Not Classified	
Health hazards	Not Classified	
Environmental hazards	Not Classified	
Label elements Hazard statements	NC Not Classified	

3. Composition/information	3. Composition/information on ingredients		
Mixtures			
Epoxy Resin - Proprietary I Formulation. CAS number: —	Environmentally Friendly 64.0%		
CAS humber. —			
Classification Skin Irrit. 2 - H315			
Glass cloth	36.0%		
CAS number: 65997-17-3			
Classification Not Classified			
The full text for all hazard statements is displayed in Section 16.			
Composition comments	Tested on 1080 RC 64% material.		
4. First-aid measures			
Description of first aid meas	ures		
General information	Get medical advice/attention if you feel unwell. Never give anything by mouth to an unconscious person.		
Inhalation	IF INHALED: Move affected person to fresh air at once. If breathing stops, provide artificial respiration. Consult a physician for specific advice.		
Ingestion	IF SWALLOWED: Rinse mouth thoroughly with water. Consult a physician for specific advice.		
Skin Contact	Remove contaminated clothing. Rinse immediately with plenty of water.		
Eye contact	If dust has entered the eyes, proceed as follows. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist after washing.		
Protection of first aiders	If it is suspected that airborne contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus.		
Most important symptoms a	nd effects, both acute and delayed		
Inhalation	Inhalation of dust during cutting, grinding or sanding operations involving this product may cause irritation of the respiratory tract.		
Ingestion	Due to the physical nature of this product, it is unlikely that ingestion will occur. May cause discomfort if swallowed.		
Skin contact	Dust may cause slight irritation.		
Eye contact	Dust may cause slight irritation.		
Indication of immediate medical attention and special treatment needed			
Notes for the doctor	Treat symptomatically.		
5. Fire-fighting measures			

### Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire. Water spray, foam, dry powder or carbon dioxide.	
Unsuitable extinguishing media	None known.	
Special hazards arising from the substance or mixture		
Specific hazards	The product is not flammable.	
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO). Acrid smoke or fumes. Toxic gases or vapors.	
Advice for firefighters		
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.	
6. Accidental release measure	S	
Personal precautions, protection	ve equipment and emergency procedures	
Personal precautions	Avoid inhalation of dust and contact with skin and eyes.	
Environmental precautions		
Environmental precautions	Avoid release to the environment. Avoid spreading dust or contaminated materials.	
Methods and material for cont	ainment and cleaning up	
Methods for cleaning up	Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely.	
7. Handling and storage		
Precautions for safe handling		
Usage precautions	No specific requirements are anticipated under normal conditions of use.	
Advice on general occupational hygiene	No specific requirements are anticipated under normal conditions of use.	
Conditions for safe storage, in	cluding any incompatibilities	
Storage precautions	No specific requirements are anticipated under normal conditions of use.	
Specific end uses(s)		
Specific end use(s)	The identified uses for this product are detailed in Section 1.	
8. Exposure Controls/personal protection		
Control parameters Occupational exposure limits In relation to glass fiber only.		
Glass cloth		
In relation to glass fiber only. Long-term exposure limit (8-hour TWA): OSHA 15 mg/m³ total dust Long-term exposure limit (8-hour TWA): ACGIH 1 1 fiber/cm3 OSHA = Occupational Safety and Health Administration. ACGIH = American Conference of Governmental Industrial Hygienists.		

Ingredient comments No data available on the specific mixture.

Exposure controls

12. Ecological Information

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Appropriate engineering controls	Mechanical ventilation or local exhaust ventilation may be required.
Personal protection	The following personal protection may be needed if long term exposure during machining, grinding and sawing.
Eye/face protection	Wear eye protection.
Hand protection	Wear protective gloves.
Other skin and body protection	No specific requirements are anticipated under normal conditions of use.
Hygiene measures	Good personal hygiene procedures should be implemented.
Respiratory protection	Wear a suitable dust mask.
9. Physical and Chemical Prop	perties
Information on basic physical	and chemical properties
Appearance	Solid.
Odor	No characteristic odor.
Odor threshold	Does not apply, as product is odorless.
Flammability (solid, gas)	UL-94 V0
Relative density	~ 1.6 - 1.9
Decomposition Temperature	385°C
Comments	Information given is applicable to the product as supplied.
10. Stability and reactivity	
Reactivity	Not reactive under normal use and conditions.
	Stable under normal use and conditions.
Stability	
Stability Possibility of hazardous reactions	Product is stable. Hazardous polymerisation will not occur.
Possibility of hazardous	
Possibility of hazardous reactions	Product is stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions Conditions to avoid	Product is stable. Hazardous polymerisation will not occur. Avoid generation and spreading of dust.
Possibility of hazardous reactions Conditions to avoid Materials to avoid Hazardous decomposition	<ul> <li>Product is stable. Hazardous polymerisation will not occur.</li> <li>Avoid generation and spreading of dust.</li> <li>Strong acids. Strong alkalis. Strong oxidizing agents.</li> <li>Will decompose at temperatures exceeding 385°C. Carbon monoxide (CO). Carbon dioxide</li> </ul>
Possibility of hazardous reactions Conditions to avoid Materials to avoid Hazardous decomposition products	Product is stable. Hazardous polymerisation will not occur. Avoid generation and spreading of dust. Strong acids. Strong alkalis. Strong oxidizing agents. Will decompose at temperatures exceeding 385°C. Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).
Possibility of hazardous reactions Conditions to avoid Materials to avoid Hazardous decomposition products 11. Toxicological information	Product is stable. Hazardous polymerisation will not occur. Avoid generation and spreading of dust. Strong acids. Strong alkalis. Strong oxidizing agents. Will decompose at temperatures exceeding 385°C. Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).
Possibility of hazardous reactions Conditions to avoid Materials to avoid Hazardous decomposition products 11. Toxicological information Information on toxicological ef	Product is stable. Hazardous polymerisation will not occur. Avoid generation and spreading of dust. Strong acids. Strong alkalis. Strong oxidizing agents. Will decompose at temperatures exceeding 385°C. Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).

Ecotoxicity	There are no data on the ecotoxicity of this product.	
Persistence and degradability		
Persistence and degradability	The product is not biodegradable.	
Bioaccumulative potential		
Bio-Accumulative Potential	No data available on bioaccumulation.	
Mobility in soil		
Mobility	No data available.	
13. Disposal considerations		
Waste treatment methods		
General information	External recovery, treatment, recycling and disposal of waste should comply with all applicable local and/or national regulations.	
Waste class	As supplied, this material is not regulated as hazardous waste under the US EPA Resources Conservation and Recovery Act (RCRA).	
14. Transport information		
General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).	
15. Regulatory information		
Regulatory Status	Information on safety, health and environmental regulations specific to this product are referred to where data is available.	
US Federal Regulations SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities Not listed. SARA Extremely Hazardous Substances EPCRA Reportable Quantities		
Not listed. <b>SARA 313 Emission Reporting</b> Some of the ingredients are list		
SARA (311/312) Hazard Cate None	gories	
OSHA Highly Hazardous Che Not listed.	emicals	
US State Regulations		
	<b>inogens and Reproductive Toxins</b> any substances restricted under Proposition 65.	
Massachusetts "Right To Kno Some of the ingredients are lis		
Minnesota "Right To Know" List Some of the ingredients are listed or exempt.		

### New Jersey "Right To Know" List

Some of the ingredients are listed or exempt.

### Pennsylvania "Right To Know" List

Some of the ingredients are listed or exempt.

### Inventories

Canada - DSL/NDSL All the ingredients are listed or exempt.

### **US - TSCA**

All the ingredients are listed or exempt.

# US - TSCA 12(b) Export Notification

Not listed.

16. Other information	
Issued by	HS&E Manager.
Revision date	9/16/2017
Revision	Issue 1
SDS No.	4547
SDS status	Approved.
Hazard statements in full	H315 Causes skin irritation.
NFPA - health hazard	Exposure to dust could cause irritation but only minor residual injury even if no treatment given
NFPA - flammability hazard	Material is self extinguishing.
NFPA - instability hazard	Normally stable, even under fire exposure conditions, and is not reactive with water.
ACA HMIS Flammability rating.	Minimal Hazard.
ACA HMIS Physical hazard rating.	Normally stable. (0)

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.