

## SAFETY DATA SHEET

## VT-441C CCL

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

VT-441C CCL

## 1.2. Relevant identified uses of the substance or mixture and uses advised against

## Relevant identified uses of the substance or mixture

Production of printed circuit board materials

Restricted to professional and industrial use.

## Uses advised against

None known.

## 1.3. Details of the supplier of the safety data sheet

## Company and address

**Ventec USA**

720 Lee St,

Elk Grove Village,

Illinois.

60007 Illinois

USA

+1 630-422 1627

www.ventec-group.com

## E-mail

saleseast@ventec-usa.com

## SDS date

3/3/2026

## SDS Version

1.0

## 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® ([triage.webpoisoncontrol.org](http://triage.webpoisoncontrol.org)) to get specific guidance for your case

See also section 4 "First aid measures".

## SECTION 2: Hazard(s) identification

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

## 2.1. Classification of the substance or mixture

Skin Irrit. 2; H315, Causes skin irritation.

## 2.2. Label elements

## Hazard pictogram(s)



## Signal word

Warning

## Hazard statement(s)

Causes skin irritation. (H315)

**Precautionary statement(s)**

**General**

Not applicable.

**Prevention**

Wash hands and exposed skin thoroughly after handling. (P264)

Wear protective gloves/protective clothing/eye protection/face protection. (P280)

**Response**

Not applicable.

**Storage**

Not applicable.

**Disposal**

Not applicable.

**SECTION 3: Composition/Information on Ingredients**

**3.1. Substances**

Not applicable. This product is a mixture.

**3.2. Mixtures**

Product/substance	Identifiers	% w/w	Classification	Note
Epoxy Resin - Proprietary Formulation - CCL/PP	CAS No.: 26265-08-7	40-60%	Skin Irrit. 2, H315	
Glass cloth	CAS No.: 65997-17-3	25-40%		[19]
Copper Foil	CAS No.: 7440-50-8	15-25%		

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

**Other information**

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**SECTION 4: First-aid measures**

**4.1. Description of first aid measures**

**General information**

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

**Inhalation**

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

**Skin contact**

IF ON SKIN: Wash with plenty of water and soap.

Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

**Eye contact**

If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

#### Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

#### Burns

Not applicable.

#### 4.2. Most important symptoms and effects, both acute and delayed

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### Information to medics

Bring this safety data sheet or the label from this product.

### SECTION 5: Fire-fighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

#### 5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Some metal oxides

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

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#### 6.2. Environmental precautions

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#### 6.3. Methods and material for containment and cleaning up

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#### 6.4. Reference to other sections

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

#### 7.2. Conditions for safe storage, including any incompatibilities

Recommended storage material

As recommended under the TDS

**Storage conditions**

As recommended under the TDS.

**Incompatible materials**

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

**7.3. Specific end use(s)**

This product should only be used for applications quoted in section 1.2.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

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Part 1910 - Occupational Safety and Health Standards (29 CFR 1910.1000 TABLE Z-1 - Limits for Air Contaminants)

**8.2. Exposure controls**

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**General recommendations**  
Smoking, drinking and consumption of food is not allowed in the work area.

**Exposure scenarios**  
There are no exposure scenarios implemented for this product.

**Exposure limits**

-  
**Appropriate technical measures**

-  
**Hygiene measures**

-  
**Measures to avoid environmental exposure**


**Individual protection measures, such as personal protective equipment**

**Generally**

Use only protective equipment with a recognized certification mark, e.g. the UL mark.


**Respiratory Equipment**

Type	Class	Colour	Standards
S/SL	P1	White	EN149




**Skin protection**

Recommended	Type/Category	Standards
Dedicated work clothing should be worn.	-	-



**Hand protection**

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Gloves	-	-	EN374



**Eye protection**

Type	Standards
Safety glasses	EN ISO 16321-1



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Physical state

Solid

#### Color

Yellow

#### Odor

No data available.

#### Odor threshold (ppm)

No data available.

#### pH

No data available.

#### Density (g/cm<sup>3</sup>)

1.5-1.9

#### Kinematic viscosity

Does not apply to solids.

#### Particle characteristics

No data available.

#### Phase changes

##### Melting point/freezing point (°F)

No data available.

##### Softening point/range (°F)

Does not apply to solids.

##### Boiling point (°F)

Does not apply to solids.

##### Vapor pressure

No data available.

##### Relative vapor density

Does not apply to solids.

##### Decomposition temperature (°F)

-

##### Decomposition temperature (°C)

385

#### Data on fire and explosion hazards

##### Flash point (°F)

Does not apply to solids.

##### Flammability (°F)

No data available.

##### Auto-ignition temperature (°F)

No data available.

##### Explosion limits (% v/v)

Does not apply to solids.

#### Solubility

##### Solubility in water

No data available.

n-octanol/water coefficient (LogKow)

No data available.

Solubility in fat (g/L)

No data available.

9.2. Other information

Other physical and chemical parameters

No data available.

Oxidizing properties

No data available.

## SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions, including those associated with foreseeable emergencies

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

Thermal decomposition will produce carbon monoxide, carbon dioxide, hydrogen bromide, and nitrogen oxides.

## SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

Powder may cause skin irritation

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Other information

None known.

SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met.

12.2. Persistence and degradability

Non biodegraded

12.3. Bioaccumulative potential

Based on available data, the classification criteria are not met.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Other adverse effects

None known.

SECTION 13: Disposal considerations

RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)

None of the components are listed

Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other informatio n:
DOT	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

Additional information

Not dangerous goods according to DOT, IATA and IMDG.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.2. U.S. Federal regulations

TSCA (the non-confidential portion)

Epoxy Resin - Proprietary Formulation - CCL/PP is listed

Glass cloth is listed

Copper Foil is listed

#### Clean Air Act

None of the components are listed

#### EPCRA Section 302

None of the components are listed

#### EPCRA Section 304

None of the components are listed

#### EPCRA section 313

Copper Foil is listed

#### CERCLA

Copper Foil is regulated with a Reportable Quantity (RQ) of: 5000 pounds

#### Hazardous chemical inventory reporting

This product contains substances that may cause endocrine disruption in humans.

#### State regulations

##### California / Prop. 65

None of the components are listed

##### Massachusetts / Right To Know Act

Copper Foil is listed

##### New Jersey / Right To Know Act

Copper Foil / Substance number: 0528

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##### New York / Right To Know Act

Copper Foil is listed

Copper Foil is regulated with a Reportable Quantity (RQ) of: 5000\* pounds

Copper Foil is regulated with a Threshold Reporting Quantity (TRQ) of: 100 pounds

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##### Pennsylvania / Right To Know Act

Copper Foil is listed

Copper Foil is hazardous to the environment (E)

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#### 15.4. Restrictions for application

Industrial use only.

#### 15.5. Demands for specific education

No specific requirements.

#### 15.6. Additional information

Not applicable.

#### 15.7. Chemical safety assessment

No

#### 15.8. Sources

OSHA Hazard Communication Standard (29 CFR 1910.1200)

### SECTION 16: Other information

#### Full text of H-phrases as mentioned in section 3

H315, Causes skin irritation.

#### The full text of identified uses as mentioned in section 1

None known.

#### Abbreviations and acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act  
DOT = Department of Transportation  
EINECS = European Inventory of Existing Commercial chemical Substances  
EPCRA = Emergency Planning and Community Right-To-Know Act  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
HCIS = Hazardous Chemical Information System  
HNOC = Hazards Not Otherwise Classified  
IARC = International Agency for Research on Cancer  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
NFPA = National Fire Protection Association  
NIOSH = National Institute for Occupational Safety and Health  
OECD = Organisation for Economic Co-operation and Development  
OSHA = Occupational Safety and Health Administration  
PBT = Persistent, Bioaccumulative and Toxic  
RCRA = Resource Conservation and Recovery Act  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SARA = Superfund Amendments and Reauthorization Act  
SCL = A specific concentration limit.  
STEL = Short-term exposure limits  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TSCA = The Toxic Substances Control Act  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

#### Additional information

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

#### The safety data sheet is validated by

Sunny Kwok

#### Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: US-en