



Advanced Circuit Materials

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# SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: Bonding Film 3001

CHEMICAL FAMILY: Fluorocarbon Film (PCTFE Film)

HMIS RATING: H 1 F 1 R 0

USE OF MATERIAL: Bonding Film

EMERGENCY PHONE: 860-774-9605

CHEMTREC: 800-424-9300 (U.S. & Canada)  
703-527-3887 (International – Call Collect)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS No.</u>	<u>EINECS</u> <u>/ELINCS</u>	<u>%</u>	<u>OSHA</u> <u>PEL</u>	<u>ACGIH</u> <u>TLV</u>	<u>EU</u> <u>Classification</u>
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The material contains no hazardous ingredients as defined in OSHA's Hazard Communication Standard 29 CFR 1910.1200 or EU directive 1999/45/EC, and do not present a health or environmental hazard according to directive 67/548/EC. This SDS contains valuable information critical for safe handling and proper use of the product.

## 3. HAZARDS IDENTIFICATION

EFFECTS OF OVEREXPOSURE: None. A clear plastic film. Not considered hazardous under normal usage. Can release irritating and/or toxic vapors at elevated processing temperatures or if involved in a fire.

INHALATION: Not a route of exposure under normal usage. If exposed to vapors at elevated temperatures, remove to fresh air. Heated vapors may cause polymer fume fever. This is characterized by flu-like symptoms (fever, chills, muscle aches) that last about 24 hours.

EYE CONTACT: Not considered hazardous. May cause mechanical irritation if film or dust comes into contact with the eye.

SKIN CONTACT: Not considered hazardous.

INGESTION: Not a route of exposure, not considered hazardous.

CHRONIC: NA

#### 4. FIRST-AID MEASURES

INHALATION:	Not a route of exposure under normal usage. If exposed to vapors at elevated temperatures, remove to fresh air. Heated vapors may cause polymer fume fever. This is characterized by flu-like symptoms (fever, chills, muscle aches) that last about 24 hours. Obtain medical attention if symptoms persist.
EYE CONTACT:	If material comes into contact with eye, flush eye with water while holding eyelids apart to ensure complete irrigation. Obtain medical attention if symptoms persist.
SKIN CONTACT:	None known.
INGESTION:	None known.

#### 5. FIRE-FIGHTING MEASURES

FLASH POINT:	NA	Flammable Limits:	LEL	NA	UEL	NA
AUTOIGNITION TEMPERATURE:	NA					
EXTINGUISHING MEDIA:	<u>  X  </u> Water Spray	<u>  X  </u> Foam	<u>  X  </u> CO <sub>2</sub>			
	<u>  X  </u> Dry Chemical	<u>      </u> Other –				
SPECIAL FIRE FIGHTING PROCEDURES:	Firefighters should be equipped with self-contained breathing apparatus and turnout gear.					
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Gaseous products may be evolved if the film is heated to very high temperatures and they should be regarded as hazardous.					

#### 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	This material is considered to be inert at ambient conditions but may evolve hazardous fumes upon reaching its decomposition temperature. Wear suitable protective equipment.
ENVIRONMENTAL PRECAUTIONS:	Prevent from entering sewer system, surface water or soil.
CLEANING METHODS:	Sweep or shovel spills into appropriate container for disposal.

#### 7. HANDLING AND STORAGE

HANDLING:	Wear suitable protective equipment. Refer to section 8. Use normal personnel hygiene and good housekeeping.
STORAGE:	Store in a cool, well-ventilated area, away from direct sunlight.

#### 8. ENGINEERING CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:	None required with normal use.
<u>VENTILATION</u>	
LOCAL:	Use local exhaust in operations that create airborne dust where material is heated above 500°F. Local Exhaust is recommended in all heating operations where fumes are emitted following good industrial hygiene practices.
GENERAL:	Recommended with all industrial operations.

## PERSONAL PROTECTION

HAND: None required.  
EYE: Safety glasses with side shields for all industrial operations  
OTHER: Safety Shower/eyewash in the area

## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear Transparent Film  
ODOR: None  
PHYSICAL STATE: Solid  
FLASH POINT: NA  
BOILING POINT: NA  
MELTING POINT: 412°F (211°C)  
FREEZING POINT: NA  
WATER SOLUBILITY: NA  
VAPOR PRESSURE: NE  
SPECIFIC GRAVITY: 2.11 (Water = 1)  
PARTITION COEFIECIENT: NA  
EXPLOSIVE PROPERTIES: NA  
EVAPORATION RATE: NA  
DENSITY: NA  
VISCOSITY: NA  
IGNITION TEMPERATURE: NA  
PH: NA  
FLAMMABILITY: NA  
OXIDIZING PROPERTIES: NA

## 10. STABILITY AND REACTIVITY

STABLE  UNSTABLE  PTFE begins to decompose very slowly above 500°F. Decomposition increases rapidly above 750°F and processing at these temperatures for prolonged periods of time is not recommended.

MATERIALS TO AVOID: None under normal use.  
HAZARDOUS POLYMERIZATION:  May Occur  Does Not Occur  
HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products may include hydrogen chloride, hydrogen fluoride, carbon monoxide, and carbon dioxide and combustion by products as well as:  
Tetrafluoroethylene (Above 800°F)  
Hexafluoropropylene (Above 825°F)  
Perfluoroisobutylene (Above 885°F)  
Carbonyl Fluoride (Above 930°F)

## 11. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS: NA  
ACUTE/CHRONIC: NA  
REPRODUCTIVE HAZARDS: NA

## 12. ECOLOGICAL INFORMATION

This material is considered inert and not expected to be biodegradable or toxic.

### 13. DISPOSAL CONSIDERATION

ENVIRONMENTAL TOXICITY DATA: NA  
WASTE DISPOSAL METHOD: Dispose of in accordance with applicable, federal, state, provincial, and local laws and regulations.

### 14. TRANSPORT INFORMATION

DOT CLASSIFICATION: Not regulated.  
IMDG CLASSIFICATION: Not regulated.  
ICAO/IATA CLASSIFICATION: Not regulated.

### 15. REGULATORY INFORMATION

INTERNATIONAL REGULATIONS:  
Canadian (DSL/NDSL): NE (Considered a manufactured article.)  
Australian (ACIS): NE  
Korea (KECI): NE  
European Union: (EINECS): Listed  
Japan (ENCS, MITI): NE  
EU Directive 2002/95/EC (RoHS): Compliant

European:  
R-Phase(s): NA  
S-Phase(s): NA

TSCA  
(*Toxic Substances Control Act*): All ingredients are TSCA Listed.

CERCLA  
(*Comprehensive Emergency Response, Compensation, and Liability Act*): NA

SARA TITLE III  
(*Superfund Amendments and Reauthorization Act*): NA

311/312 HAZARD CATEGORIES: None

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<u>CAS #</u>	<u>CHEMICAL NAME</u>	<u>PERCENT BY WEIGHT</u>
NA	NA	NA

### 16. OTHER INFORMATION

NA = Not Applicable  
NE = Not Established  
NC = Not Classified

FILE: 99028-Bonding Film 3001-07012014.doc

DATE REVISED: 07/01/2014  
REVISED BY: Greg Sullivan, CIH

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