



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 /ELINCS</u>	<u>%</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>EU 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:

X
 X

Water Spray

X

Foam

X
Other –

CO₂

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.

VENTILATION

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

FILE:

99028-Bonding Film 3001-07012014.doc

NE = Not Established

NC = Not Classified

DATE REVISED: 07/01/2014

REVISED BY:

Greg Sullivan, CIH

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