

One Technology Drive/ P.O. Box 188 /Rogers, CT 06263-0188 / 860.774.9605

PRODUCT SAFETY INFORMATION SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: RT/duroid® 6035HTC High Frequency Material

CHEMICAL FAMILY: Fluoropolymer Composite Materials

HMIS RATING: H 1 F 1 R 0

USE OF MATERIAL Printed Circuit Boards

EMERGENCY PHONE: 860-774-9605 (Monday – Friday 8 a.m. – 5 p.m. EST)

2. COMPOSITION/INFORMATION ON INGREDIENTS

This material is produced as an "article" as defined in 20 CFR 1910.1200 and REGULATION (EC) N° 1907/2006 is therefore exempt from the Hazard Communication Standard and REACH. Since this material does not release and will not result in exposure to a hazardous chemical under normal conditions of use, no Safety Data Sheet is required.

	ical Name	CAS No.	EINECS /ELINCS	OSHA PEL	ACGIH TLV	EU Classification
DIELECTRIC Fused		60676-86-0	262-373-8	80 mg/m³ %SiO ₂	NE	NC according to 67/548/EEC
Titaniu	ım Dioxide	13463-67-7	236-675-5	15 mg/m ³ (Total Dust)	10 mg/m ³	NC according to 67/548/EEC
Polyte (PTFE	trafluorethylene i)	9002-84-0	NE	NE	NE	NC according to 67/548/EEC
Boron	Nitride	10043-11-5	NE	15 mg/m ³ (Total Dust)	10 mg/m ³	NC according to 67/548/EEC
CLADDING (Copper, Aluminum or Brass)						
Coppe		7440-50-8	231-159-6	1 mg/m ³	1 mg/m ³	NC according to 67/548/EEC

The material contains no other 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.

3. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE NA

MATERIAL:

LABELING REQUIREMENTS: NA

EFFECTS OF OVEREXPOSURE: None anticipated with normal handling. Machining may cause dusting. Processing material at temperatures exceeding decomposition temperature may release toxic fumes. INHALATION: Dusts may cause respiratory irritation. Exposure to copper fume or PTFE decomposition products may cause symptoms of Metal or Polymer Fume Fever. This is characterized by flu like symptoms (fever, chills, muscle aches) that last about 24 hours. EYE CONTACT: Dust may cause mechanical irritation. SKIN CONTACT: Dust may cause mechanical irritation. INGESTION: None known. CHRONIC: None known. FIRST-AID MEASURES 4. INHALATION: Remove to fresh air. Obtain medical attention if symptoms persist. Flush eyes with large amounts of water for 15 to 20 minutes. Obtain medical **EYE CONTACT:** attention if symptoms persist. Wash area of contact thoroughly with soap and water. Do not rub or scratch. SKIN CONTACT: Obtain medical attention if symptoms persist. INGESTION: Obtain medical attention if symptoms persist. FIRE-FIGHTING MEASURES 5. FLASH POINT: NA Flammable Limits: LEL NA UEL NA **AUTOIGNITION TEMPERATURE:** NA **EXTINGUISHING MEDIA:** Χ Water Spray X CO₂ Foam **Dry Chemical** Other -SPECIAL FIRE FIGHTING Firefighters should be equipped with self-contained breathing apparatus and PROCEDURES: turnout gear. UNUSUAL FIRE AND EXPLOSION None HAZARDS: **ACCIDENTAL RELEASE MEASURES** 6. PERSONAL PRECAUTIONS: In case of fire toxic fumes are emitted. Wear suitable protective equipment. Do not breathe dust. Eliminate sources of ignition. Avoid contact with skin and eyes. **ENVIRONMENTAL PRECAUTIONS:** Prevent from entering sewer system, surface water or soil. **CLEANING METHODS:** Sweep or shovel spills into appropriate container for disposal. Avoid creating airborne dust. 7. HANDLING AND STORAGE HANDLING: Wear suitable protective equipment (refer to Section 8). Wash hands with soap and water after handling. STORAGE: Keep container tightly closed in a cool, well-ventilated area.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

RESPIRATORY PROTECTION: If mechanical ventilation is absent or inadequate to maintain exposure levels

below those listed in Section 2 use NIOSH/MSHA approved respirators.

VENTILATION

LOCAL: Recommended in operations that create airborne dust or where material is

heated above 500°F. Local exhaust is recommended in all heating operations where fumes are emitted. Follow good industrial hygiene

practice.

GENERAL: Recommended as with all industrial operations.

PERSONAL PROTECTION

HAND: Cut resistant gloves.

EYE: Safety glasses with side shields. Do not wear contact lenses.

OTHER: Safety shower/eyewash in the area if possible exposure to tissue. Do not

smoke or keep smoking materials in areas where material is machined or

excessive dusting occurs. Wash thoroughly before eating or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Gray or White Sheet Clad with Copper

ODOR: None PHYSICAL STATE: Solid **BOILING POINT:** NA MELTING POINT: NA FREEZING POINT: NA FLASH POINT: NA WATER SOLUBILITY: NA VAPOR DENSITY: NA **VAPOR PRESSURE:** NA

SPECIFIC GRAVITY: NA (water = 1)

PARTITION COEFFICIENT: NA **EVAPORATION RATE:** 0 **RELATIVE DENSITY:** NA NA VISCOSITY: **AUTO-IGNITION TEMPERATURE:** NA **DECOMPOSITION TEMPERATURE:** NA PH: NA FLAMMABILITY: NA

10. STABILITY AND REACTIVITY

STABLE X 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 usage.

HAZARDOUS POLYMERIZATION: May Occur X Does Not Occur
HAZARDOUS DECOMPOSITION Above 250°C material can evolve toxic gaseous materials such as:

PRODUCTS: Tetrafluoroethylene (above 800°F)

Hexafluoropropylene (above 825°F) Perfluoroisobutylene (above 885°F) Carbonyl Fluoride (above 930°F)

11. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS: NA

12. ECOLOGICAL INFORMATION

NA

13. DISPOSAL CONSIDERATION

PHYSICAL/CHEMICAL PROPERTIES

AFFECTING DISPOSAL:

None

ENVIRONMENTAL TOXICITY DATA:

NA

WASTE DISPOSAL METHOD:

Dispose of in accordance with applicable federal, state, provincial, and local

laws and regulations.

14. TRANSPORT INFORMATION

UN NUMBER:
UN PROPER SHIPPING NAME:
HAZARD CLASS (ES):
PACKING GROUP:
ENVIRONMENTAL HAZARDS:
Not Regulated
Not Regulated
Not Regulated

15. REGULATORY INFORMATION

INTERNATIONAL REGULATIONS:

Canadian (DSL/NDSL):

Australian (ACIS):

Korea (KECI):

Japan (ENCS, MITI):

China (IECSC)

NE

Article

EU Directive 2011/65/EC (RoHS): Does not contain any intentionally added substances mentioned by the

RoHS directive.

TSCA All ingredients are TSCA listed.

(Toxic Substances Control Act):

CERCLA NA

(Comprehensive Emergency Response,

Compensation, and Liability Act):

SARA TITLE III NA

(Superfund Amendments and

Reauthorization Act):

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:

CAS #CHEMICAL NAMEPERCENT BY WEIGHT7440-50-4CopperVaries

16. OTHER INFORMATION

NA = Not Applicable FILE: 99282-RT6035HTC-08192020

NE = Not Established NC = Not Classified

Date Prepared: 08-19-2020 PREPARED BY: EHS Engineering

REVIEWED BY: Corporate EHS

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