



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: XT/duroid™

CHEMICAL FAMILY: Laminate Material

HMIS RATING: H 1 F 1 R 0

USE OF MATERIAL: Circuit Material

DATE REVISED: July 7, 2014

COMPANY/UNDERTAKING IDENTIFICATION: Rogers Corporation  
100 South Roosevelt Avenue  
Chandler, AZ 85226-3415  
Phone: 001-480-961-1382  
Fax: 001-480-961-4533  
Email: msdsinfo@rogerscorporation.com

### 2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE MATERIAL: Not classified as hazardous under 1999/45/EC.

LABELING REQUIREMENTS: None

EFFECTS OF OVEREXPOSURE: None are expected with normal handling. Machining may cause the following: Dusts may cause respiratory irritation. Copper fumes may cause metal fume fever with flu-like symptoms that usually subside after 24 hours.

INHALATION: Dusts may cause irritation.

EYE CONTACT: Dusts may cause irritation.

SKIN CONTACT: Molten material may cause burns.

INGESTION: Not a likely route of exposure. If ingested, seek medical attention.

CHRONIC: NE

### 3. 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.

<u>Chemical Name</u>	<u>CAS No.</u>	<u>EINECS /ELINCS</u>	<u>%</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>China OEL</u>	<u>EU Classification</u>
Polymer	Proprietary	Proprietary	15-70	NE	NE	NE	NC according to 67/548/EEC
Copper	7440-50-8	231-159-6	25-70	1 mg/m³	1 mg/m³	1 mg/m³	NC according to 67/548/EEC
Glass Fiber (Continuous Filament)	65997-17-3	266-046-0	0-20	5 mg/m³ (Resp.)	3 mg/m³ (Resp.)	3 mg/m³ (Resp.)	NC according to 67/548/EEC

## 4. FIRST-AID MEASURES

INHALATION:	Remove to fresh air. Obtain medical attention if symptoms persist.
EYE CONTACT:	Flush eyes with large amounts of water for 15 to 20 minutes. Obtain medical attention if symptoms persist.
SKIN CONTACT:	If hot or molten material contacts skin, cool rapidly with cold water. If stuck to skin, do not remove. Obtain medical attention and allow polymer to come off naturally. Removal of adhered polymer may result in more tissue damage.
INGESTION:	Not a likely route of exposure. Low toxicity is expected. Obtain medical attention if symptoms persist.

## 5. FIRE-FIGHTING MEASURES

FLASH POINT:	NA	Flammable Limits:	LEL	<u>NA</u>	UEL	<u>NA</u>
AUTOIGNITION TEMPERATURE:	595°C (Polymer)					
EXTINGUISHING MEDIA:	<u>X</u> Water Spray <u>X</u> Dry Chemical	<u>X</u> Foam Other –	<u>X</u> CO <sub>2</sub>			
SPECIAL FIRE FIGHTING PROCEDURES:	Firefighters should be equipped with self-contained breathing apparatus and turnout gear.					
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None known.					

## 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	Wear suitable protective equipment. Do not breathe dust.
ENVIRONMENTAL PRECAUTIONS:	Prevent from entering sewer system, surface water or soil.
CLEANING METHODS:	Sweep or vacuum dust for disposal.

## 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. ENGINEERING CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:	None needed under normal conditions. If material is heated and odors are noticeable and/or irritating a respirator meeting NIOSH requirements should be used. A qualified individual should evaluate each situation.
<u>VENTILATION</u>	
LOCAL:	Recommended for all industrial operations. If heating, required.
GENERAL:	Recommended for all industrial operations.
<u>PERSONAL PROTECTION</u>	
HAND:	Heavy Rubber Gloves
EYE:	Safety glasses with side shields.
OTHER:	Safety shower/eyewash in the area if possible tissue exposure to materials.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Film, off-white or grey
ODOR:	None
PHYSICAL STATE:	Solid
BOILING POINT:	NA
MELTING POINT:	343 °C (Polymer)
FREEZING POINT:	NA
FLASH POINT:	°C (°F)
WATER SOLUBILITY:	Insoluble
VAPOR DENSITY:	NA
VAPOR PRESSURE:	NA
SPECIFIC GRAVITY:	NE (Water = 1)
PARTITION COEFFICIENT:	NA
EVAPORATION RATE:	NA
RELATIVE DENSITY:	NE
VISCOSITY:	NA
AUTO-IGNITION TEMPERATURE:	595°C (Polymer)
DECOMPOSITION TEMPERATURE:	NA
PH:	NA
FLAMMABILITY:	Product may burn.

## 10. STABILITY AND REACTIVITY

STABLE	<input checked="" type="checkbox"/>	UNSTABLE	<input type="checkbox"/>
MATERIALS TO AVOID:		NE	
HAZARDOUS POLYMERIZATION:		May Occur	<input checked="" type="checkbox"/>
HAZARDOUS DECOMPOSITION PRODUCTS:		Carbon Monoxide, Carbon Dioxide, and hydrocarbons	Does Not Occur

## 11. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS:	NA
----------------------	----

## 12. ECOLOGICAL INFORMATION

NA

## 13. DISPOSAL CONSIDERATION

PHYSICAL/CHEMICAL PROPERTIES	None
AFFECTING DISPOSAL:	
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:	Not Regulated
UN PROPER SHIPPING NAME:	Not Regulated
HAZARD CLASS (ES):	Not Regulated
PACKING GROUP:	Not Regulated
ENVIRONMENTAL HAZARDS:	Not Regulated

## 15. REGULATORY INFORMATION

### INTERNATIONAL REGULATIONS:

Canadian (DSL/NDSL):	NE
Australian (ACIS):	NE
Korea (KECI):	NE
Japan (ENCS, MITI):	NE
China (IECSC)	Article
EU Directive 2001/65/EC (RoHS):	Does not contain any intentionally added substances mentioned by the RoHS directive.
European:	
Symbol	Not classified according to directive 1999/45/EC & 2001/60/EC (dangerous preparations).
R-Phase(s):	NA
S-Phase(s):	NA
TSCA ( <i>Toxic Substances Control Act</i> ):	All materials are listed or exempt from TSCA listing. Considered Article
CERCLA ( <i>Comprehensive Emergency Response, Compensation, and Liability Act</i> ):	NA
SARA TITLE III ( <i>Superfund Amendments and Reauthorization Act</i> ):	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: 99241-XTduroid-07072014

NE = Not Established

99241

NC = Not Classified

PREPARED BY: Michal Werbecki

REVIEWED BY: Curtis Kempton

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULT TO BE OBTAINED FROM THE USE THEREOF.

ROGERS CORPORATION ASSUMES NO RESPONSIBILITY FOR PERSONAL INJURY OR PROPERTY DAMAGE TO VENDEES, USERS OR THIRD PARTIES CAUSED BY THE MATERIAL. SUCH VENDEES OR USERS ASSUME ALL RISKS ASSOCIATED WITH THE USE OF THE MATERIAL.