1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Tecasint® 1000  
SYNONYMS: Not Applicable  
PRODUCT COLORS: Various  
MANUFACTURER: Ensinger Inc.  
DIVISION: Stock Shapes  
ADDRESS: 365 Meadowlands Blvd., Washington, PA 15301  
EMERGENCY PHONE: (724) 746-6050  
OTHER CALLS: (856) 227-0500  
CHEMICAL NAME: Polyimide  
PRODUCT USE: Stock Shape for Machining  
PREPARED BY: Allyson M. Huhn, Regulatory & Compliance Manager  
SECTION 1 NOTE: Revised January 15, 2016

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Mechanical injury only.

ROUTES OF ENTRY: Eyes

POTENTIAL HEALTH EFFECTS
   EYES: Solid or dust causes irritation or corneal injury due to mechanical action.
   SKIN: Essentially nonirritating to skin. Mechanical injury only. Molten material may burn skin.
   INGESTION: Single dose oral LD50 has not been determined. Single dose oral toxicity is believed to be very low. Now hazards anticipated from ingestion incidental to industrial exposure.
   INHALATION: Dust may cause irritation to upper respiratory tract. At room temperature, exposure to vapors are unlikely due to physical properties, normal processing temperatures may generate vapors, which may cause irritation if ventilation is inadequate.

ACUTE HEALTH HAZARDS: None Known

CHRONIC HEALTH HAZARDS: None Known

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None Known

CARCINOGENICITY – None Known
Human Health Effects of Overexposure: Inhalation of fumes from burning "Teflon" PTFE may cause polymer fume fever", a temporary flu-like illness with fever, chills, and sometimes cough, of approximately 24 hour duration. Smokers should avoid contamination of tobacco products and should wash their hands before smoking. Significant skin permeation after contact appears unlikely. There are no report of human sensitization. Inhalation of low concentrations of hydrogen fluoride can initially include symptoms of choking, coughing, and severe eye, nose, and throat irritation. Possibly followed after a symptom less period of 1 to 2 days by fever, chills, difficulty in breathing, cyanosis, and pulmonary edema. Acute or chronic overexposure to HF can injure the liver and kidneys. Inhalation, ingestion, or skin or eye contact with carbonyl fluoride may initially include: skin irritation with discomfort or rash; eye corrosion with corneal or conjunctival ulceration; irritation effects with cough, discomfort, difficulty breathing, or shortness of breath. By analogy with phosgene, symptoms may be delayed. Individuals with preexisting diseases of the lungs may have increases susceptibility to the toxicity of excessive exposure from thermal decomposition products of PTFE.

Particulates
- OSHA: Particulates not otherwise regulated/OSHA (PEL) 15 mg/m$^3$ (TWA, Total Dust)
- Particulates not otherwise regulated/OSHA (PEL) 5 mg/m$^3$ (TWA, Respirable Dust)
- ACGIH: Particulates not otherwise regulated/ACGHI (TLV) 10 mg/m$^3$ (TWA, Total Dust)

3. COMPOSITION/INFORMATION ON INGREDIENTS

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<th>INGREDIENT:</th>
<th>CAS No.</th>
<th>%</th>
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<tr>
<td>Article based on polyimide (PI), possibly containing glass fibre, carbon fibre, graphite, molybdenum disulfide, polytetrafluoroethylene (PTFE)</td>
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The non-hazardous components and exact percentage of the composition have been withheld as a trade secret.

This product consists primarily of high molecular weight polymers, which are not expected to be hazardous.

This product contains a proprietary blend of components encapsulated within a polymer matrix. These components are not regarded as hazardous under 2012 OSHA Hazard Communication Standard; 29CFR Part 1910.1200.

4. FIRST AID MEASURES

EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Mechanical effects only.

SKIN: Wash off in flowing water or shower.

INGESTION: No adverse effects anticipated by this route of exposure incidental to proper industrial
handling. If ingested, induce vomiting; if patient is conscious. Call a poison control center/physician, if patient feels unwell.

INHALATION: Remove to fresh air, if effects occur. Consult a physician.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not Applicable

EXTINGUISHING MEDIA: dry powder, carbon dioxide

SPECIAL FIRE FIGHTING PROCEDURES: This product is difficult to ignite and is autoextinguishing. On burning it chars slowly and requires a permanent external fire source.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None Known

HAZARDOUS DECOMPOSITION PRODUCTS: With thermal decomposition toxic and combustible gases, steam and smoke are released.

SECTION 5 NOTES: Wear full protective suit. In case of combustion, use a suitable breathing apparatus. In a fire, this may form hydrogen fluoride fumes which react with water to form hydrofluoric acid. Wear neoprene gloves when handling refuse from a fire involving these types.

6. ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Ventilate the area and prevent access to unauthorized people. Wear suitable personal protective equipment. Do not allow entry to drains, water courses or soil. Prevent spreading by use of suitable barriers. Take up with suitable equipment, fill up in air-tight containers and give further treatment as soon as possible.

7. HANDLING AND STORAGE

HANDLING AND STORAGE: Keep away from strong oxidizing compounds. Store in a well-ventilated place. Provide ventilation and wear necessary protectors.

OTHER PRECAUTIONS: Obtain special instructions, before use. Do not breathe dust. Wash hands thoroughly after handling. Do not eat, drink or smoke; when machining this product. Use personal protective equipment as required.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Standard ventilation required

VENTILATION: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

RESPIRATORY PROTECTION: For most conditions a dust mask is sufficient; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.

EYE PROTECTION: Safety glasses should be sufficient for most operations; however, for dusty operations wear chemical goggles. If vapor exposure causes eye discomfort, use a full-face respirator.

SKIN PROTECTION: No precautions other than clean body-covering clothing should be needed.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None Known

EXPOSURE GUIDELINES:

Particulates
OSHA: Particulates not otherwise regulated/OSHA (PEL) 15 mg/m³ (TWA, Total Dust)
Particulates not otherwise regulated/OSHA (PEL) 5 mg/m³ (TWA, Respirable Dust)
ACGIH: Particulates not otherwise regulated/ACGHI (TLV) 10 mg/m³ (TWA, Total Dust)

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Black Semi-finished stock shape

ODOR: Not Applicable

PHYSICAL STATE: Solid

DECOMPOSITION TEMPERATURE: > 450°C

GLASS TRANSITION TEMP.: 330 – 375°C

SPECIFIC GRAVITY (H₂O = 1): 1.24 – 1.68

SOLUBILITY IN WATER: Insoluble

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.
11. **TOXICOLOGICAL INFORMATION**

TOXICOLOGICAL INFORMATION: No data – In solid state, this material is not considered as being harmful to human health.

With articles which contain PTFE, slight inhalation of thermal decomposition products or smoking contaminated tobacco can cause “fluorine polymer fever” after 2 - 6 hours (allergic alveolaritis with influenza-like symptoms: high temperature, shivering, chest pains, cough, increased pulse). Treatment is generally not necessary, symptoms disappear after 48 hours. The result of massive inhalation of thermal decomposition products (in temperatures > 450 °C) is that after a symptomless time (4 - 24 hours) pulmonary oedema starts with the danger of suffocation.

12. **ECOLOGICAL INFORMATION**

ECOLOGICAL INFORMATION: No data – This material does not harm the environment, but is not biodegradable.

13. **DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHOD: Dispose of contents/containers in accordance with local, regional, national and international regulations.

14. **TRANSPORT INFORMATION**

U.S. DEPARTMENT OF TRANSPORTATION

Not regulated
15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): All ingredients are either exempt or listed on the TSCA Chemical Substance Inventory.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): This product contains no known toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40CFR372.

16. OTHER INFORMATION

ADDITIONAL INFORMATION
MEDICAL USE: CAUTION – Do not use in medical applications involving permanent implantation in the human body.

This Safety Data Sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe this information to be correct but cannot guarantee its accuracy or completeness. Health and safety precaution in this data sheet may not be adequate for all individuals and/or situations. It is the user’s responsibility to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in the data sheet shall be construed as a permission or recommendation for the use of any product in a manner that may infringe existing patents. No warranty is made, either expressed or implied.