Safety Data Sheet

TECAPAI™ CM XP403 green

ISSUE DATE: 02/11/2019

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	TECAPAI CM XP403
SYNONYMS:	Unfilled PAI compression molded
PRODUCT COLORS:	Green
MANUFACTURER:	Ensinger Special Polymers, Inc.
DIVISION:	Stock Shapes
ADDRESS:	12331 Cutten Road, Houston, TX 77066
EMERGENCY PHONE:	(281) 580-3600
OTHER CALLS:	(856) 227-0500
CHEMICAL NAME:	Polyamide-imide
CHEMICAL FAMILY:	Polyimide
CHEMICAL FORMULA:	
PRODUCT USE:	Stock shape for machining
SECTION 1 NOTE:	Created January 24, 2019

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.

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ACUTE HEALTH HAZARDS:
Inhalation of PTFE dust may cause generalized irritation of the nose, throat and lungs with cough, difficulty breathing or shortness of breath.

Heating PTFE above 300°C (572°F) may liberate a fine particulate fume. Inhalation may produce polymer fume fever, a temporary flu-like condition with fever, chills, nausea, shortness of breath, chest tightness, muscle or joint ache, and sometimes cough and elevated white blood cell count. The symptoms are often delayed 4 to 24 hours after exposure. These signs are generally temporary, lasting 24 to 48 hours and resolve without further complications. However, some individuals with repeated episodes of polymer fume fever have reported persistent pulmonary effects. Protection against polymer fume fever should also provide protection against any potential chronic effects.

Exposure to decomposition products from PTFE heated above 400°C (752°F) may cause pulmonary inflammation, hemorrhage or edema. These more serious consequences of exposure may occur from extreme thermal decomposition of PTFE which can liberate fume particles and toxic gases (carbonyl fluoride, hydrogen fluoride, and other fluorinated gases) especially under conditions of poor ventilation and/or confined spaces. The decomposition products may initially produce chest tightness or pain, chills, fever, nausea, with shortness of breath, cough, wheezing and progression into pulmonary edema. Edema may be delayed in onset and requires medical treatment. In severe cases, if medical intervention is delayed, pulmonary edema may become life threatening. Recovery is generally complete within a few days; in some rare cases, persistent lung function abnormalities have been reported. Compared to nonsmokers, polymer fume fever symptoms appear to be more prevalent and serious in smokers. Smokers must avoid contamination of tobacco with residual polymer from their hands or from fumes, and should was their hands before smoking.

Significant skin permeation and systemic toxicity after contact with the dust appears unlikely. There are no reports of human sensitization from contact with dust. If PTFE dusts contact the eye, mechanical irritation with tearing, pain or blurred vision may result. Individuals with pre-existing diseases of the lungs or cardiovascular system may have increased susceptibility to the reduction in blood oxygen that may develop after excessive exposures to thermal decomposition products.

CHRONIC HEALTH HAZARDS	None known.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:	None known.

CARCINOGENICITY: None known.

Polytetrafluoroethylene (PTFE)
AEL: 10 mg/m^3 8 HR, (TWA, Total Dust)
5 mg/m^3 8 HR, (TWA, Respirable Dust)

Titanium dioxide 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

INGREDIENT:	CAS NO.:
Polyamide-imide	Proprietary
PTFE	9002-84-0
Titanium dioxide	13463-67-7

The non-hazardous components and exact percentage of the composition have been withheld as a trade secret.

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. 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

EXTINGUISHING MEDIA:	Water spray, foam, or dry chemical
UNUSUAL FIRE AND EXPLOSION HAZARDS:	With carbonization and incomplete combustion toxic gases develop, predominantly carbon dioxide and carbon monoxide.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide and carbon dioxide
SECTION 5 NOTES:	A self-contained breathing apparatus and suitable protective clothing should be worn in fore conditions. Dust is ignitable, but will not sustain combustion. A high temperature source of ignitions is required.

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:	Handle in accordance with good industrial hygiene and safety practices. Provide for appropriate exhaust ventilation and dust collection at machinery. Avoid dust formation. All metal parts of processing equipment must be earth ground. Store in closed container in a dry and cool area. Keep away from heat sources and sources of ignition.
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 with side shields 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 /EQUIPMENT:	None known.

EXPOSURE GUIDELINES:

Poly(amide-imide) polymer

OSHA: PEL 15 mg/m^3

Fiberglass

US. ACGIH Threshold Limit Values 2004: TWA = 5 mg/m^3

Polytetrafluoroethylene

Remarks: Thermal decomposition of the fluorocarbon chain in air leads to the formation of oxidized products containing carbon, fluorine and oxygen. No TLVs are recommended at this time, but air concentration should be controlled as low as possible.

Particulates not otherwise regulated:

OSHA: Particulates not otherwise regulated:
OSHA (PEL) 15 mg/m^3 (TWA, Total Dust)
OSHA (PEL) 5 mg/m^3 (TWA, Respirable Dust)

ACGIH: Particulates not otherwise regulated:
ACGHI (TLV) 10 mg/m^3 (TWA, Total Dust)

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Green
ODOR:	None
PHYSICAL STATE:	Solid
SOFTENING POINT:	276°C (529°F)
DECOMPOSTION TEMPERATURE:	Not available
AUTOIGNITION TEMPERATURE:	Not available
SPECIFIC GRAVITY (H_2O = 1):	~1.46 g/cm^3
SOLUBILITY IN WATER:	Insoluble

10. STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions.
CONDITIONS TO AVOID (STABILITY):	High temperatures
INCOMPATIBILITY (MATERIAL TO AVOID):	Concentrated sulfuric acid
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	By strong overheating of the material carbon oxides
HAZARDOUS POLYMERIZATION:	Not applicable
CONDITIONS TO AVOID:	To avoid thermal decomposition, avoid elevated temperatures. Heating can result in the formation of gaseous decomposition products, some of which may be hazardous. Do not exceed melt temperature recommendations in product literature.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:	In solid state, this material is not considered as being harmful to human health.

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Compared to nonsmokers, polymer fume fever symptoms appear to be more prevalent and serious in smokers. Smokers must avoid contamination of tobacco with residual polymer from their hands or from fumes, and should wash their hands before smoking.

Signs and Symptoms of Overexposure:
Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. Skin irritation signs and symptoms may include a burning sensation, redness and swelling. Respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing.

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): In compliance with TSCA Inventory requirements for commercial purposes.

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.

Toxic Substance Control Act list (TSCA): Listed on inventory.

Canadian Domestic Substances List (DSL): Listed on inventory.

Australian Inventory of Chemical Substances (AICS): One or more components not listed on inventory.

Japanese Existing and New Chemical Substances (MITI List) (ENCS): Listed on inventory.

Korean Existing Chemicals List (ECL): Listed on inventory.

Philippine Inventory of Chemicals and Chemical Substances (PICCS): One or more components not listed on inventory.

Inventory of Existing Chemical Substances (China) (IECS): Listed on inventory.

EU list of existing chemical substances (EINECS): In compliance with inventory.

S. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A): Not regulated.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65): *Supplier notification required.*

US. EPA CERCLA Hazardous Substances (40 CFR 302): Not regulated

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5): Not regulated

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Components	**CAS-No.**	**Concentration**
Polytetrafluoroethylene	9002-84-0	**>= 0.10 - <= 3.00 %**

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65): ⚠WARNING! This product can expose you to Titanium Dioxide which is known in the state of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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.