

Material Safety Data Sheet
Title: PTFE MISC PRODUCTS

HMIS RATING: Health- 1 Flammability- 1 Reactivity- 0

SECTION I- Identification of Product

PRODUCT NAME: CHEMFLUOR® PTFE Tubing, KORVEX® PTFE Heat Shrink Tubing, CHEMFLUOR® PTFE Skived Film/Tape, EXAC® PTFE Machinable Stock, CHEMWARE® PTFE Laboratory Products, ZITEX® Porous PTFE Products, FLUOROGLIDE® 200 Lubricant.

OTHER/GENERIC NAMES: Polytetrafluoroethylene, PTFE

FORM: Translucent to white opaque film, tape, rod, tube, sheet, shapes, fine powder and granules

PRODUCT USE: High temperature film laminates, release liners, chemical resistance applications, high purity fluid handling, non-stick surface coverings, gaskets, seals, boiling aids.

MANUFACTURERS NAME/ADDRESS: Saint-Gobain Performance Plastics Corp.
150 Dey Road, Wayne, NJ 07470 USA

EMERGENCY TELEPHONE NO.: CHEM-TEL Inc. US: 1-800-255-3924 Worldwide + 01-813-248-0585
TECHNICAL ASSISTANCE TELEPHONE NO.: 973-696-4700

SECTION II- Composition/Information on Ingredients

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>Weight %</u>
PTFE (Polytetrafluoroethylene polymer)	9002-84-0	>99%

This product as supplied is not considered hazardous as defined in the US Code of Federal Regulations, 29CFR 1910.1200. This product is considered an "article" as supplied for its intended and foreseen use.

All components appear on TSCA Inventory. This product contains no substances at or above the reporting threshold under Section 313 of Title III of the US EPA Superfund Amendments and Reauthorization Act of 1986 and US Code of Federal Regulations, 40CFR part 372, based on available data.

SECTION III- Hazards Identification

EMERGENCY OVERVIEW: No special dangers are known. Use within specified processing parameters, high temperatures could evolve irritating and/or toxic fumes.

Potential Health Hazards:

SKIN: Not anticipated under recommended usage conditions
EYES: Not anticipated under recommended usage conditions. Machining chips or dust may cause eye irritation.
INHALATION: Not anticipated under recommended usage conditions. If heated may cause irritation.
INGESTION: Not anticipated under recommended usage conditions. May cause nausea, vomiting and diarrhea.

Ingredients found on one of the OSHA designated carcinogen lists are listed below:
None.

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Section IV- First Aid Measures

SKIN: Not anticipated under recommended usage conditions. For hot product, immediately immerse in or flush affected area with large amounts of cold water for at least 15 minutes. Cover with clean cotton sheeting or gauze and seek medical advice.

EYES: Not anticipated under recommended usage conditions. If there is irritation, flush eyes with plenty of water for at least 15 minutes. Seek medical advice.

INHALATION: Not anticipated under recommended usage conditions. May cause influenza like symptoms if thermal decomposition products are inhaled ("polymer fume-fever"), chills, fever, and headache. Avoid contamination of tobacco products. Remove victim to fresh air. If not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

INGESTION: Not anticipated under recommended usage conditions. If a large amount is swallowed seek medical attention.

ADVICE TO PHYSICIAN: Expect influenza-like symptoms if thermal decomposition products are inhaled: chills, fever, headache, shortness of breath, coughing. This is known as "polymer fume-fever" and will pass after 24 to 48 hours providing no further exposure occurs.

SECTION V- Fire Fighting Measures

Flammable Properties

FLASH POINT: Does not flash

FLASH POINT METHOD: N/A

AUTO IGNITION TEMPERATURE: Not known

UPPER FLAME LIMIT (volume % in Air): N/A

LOWER FLAME LIMIT (volume % in Air): N/A

OXYGEN INDEX: >95%

EXTINGUISHING MEDIA: Water, foam, carbon dioxide, dry chemical.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS: Does not burn without external source of fuel. Fluoropolymers can increase the relative toxic properties of the gases evolved during a fire.

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS: Use self-contained breathing apparatus.

SECTION VI- Accidental Release Measures

IN CASE OF SPILLS OR OTHER RELEASE: Collect spilled material in appropriate container for disposal.

SECTION VII- Handling and Storage

NORMAL HANDLING: Product is physiologically inert and non-toxic at normal temperatures. Above 250 °C, some decomposition of PTFE products can be expected with evolution of gaseous and particulate products, which are toxic if inhaled. This can give rise to a characteristic syndrome with influenza type symptoms known as "polymer fume fever". These symptoms subside within 24-48 hours away from further exposure with no long-term effects. Keep away from ignition sources- do not smoke while using Fluoropolymers.

STORAGE RECOMMENDATIONS: No special requirements.

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SECTION VIII- Exposure Controls/Personal Protection

VENTILATION: Ensure good ventilation or exhaust if there is the possibility of fumes being evolved. Not required if material is used within specified processing parameters.

FIRE AND EXPLOSION: Not applicable

PERSONAL PROTECTIVE EQUIPMENT: None required if material is used within specified processing parameters. Normal safety equipment should always be used in an industrial environment. Eye protection must be worn during any machining operations.

ADDITIONAL RECOMMENDATIONS: Heat resistant clothing and skin covering when working with hot product. Do not smoke while handling material. Keep tobacco products away from sources of contamination: hands and clothes.

EXPOSURE GUIDELINES/LIMITS:

<u>Chemical Name</u>	TWA	EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		ICI DCL	
		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Polytetrafluoroethylene				_[1]	10	_[2]	10

OSHA Table Comments:

1. PNOC Inhalable (Respirable 3 mg/m³)
2. PNOC Inhalable (Respirable 3 mg/m³)

ENGINEERING CONTROLS:

Provide local exhaust to control large quantities of dust. All heated processing equipment must be vented safely to prevent the inhalation of thermal decomposition products.

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS: Not available.

SECTION IX- Physical and Chemical Properties

APPEARANCE: White translucent to opaque film, tape, tubing, rod, sheet, shape, fine powder, granules

PHYSICAL STATE: Solid

ODOR: Odorless

SPECIFIC GRAVITY (H₂O = 1): 2.13-2.20

SOLUBILITY IN WATER (weight %): Insoluble

PH: Not applicable

BOILING POINT: Not applicable

MELTING POINT: approx. 327°C

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

EVAPORATION RATE: Not applicable

% VOLATILES: Not applicable

IGNITION TEMPERATURE: >500°C.

FLASH POINT: Does not flash

THERMAL DECOMPOSITION: See Section X.

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SECTION X- Stability and Reactivity

CHEMICAL STABILITY: Stable. Thermal degradation can begin at 250°C.

INCOMPATIBILITIES/REACTS: Reacts with molten alkali metals, inter-halogen compounds, Strong oxidizers and Sodium- Potassium Alloy. Will burn in atmosphere of 95% oxygen when an ignition source is present.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition will evolve hydrofluoric acid, carbonyl fluoride, and other perfluoroolefins.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION XI- Toxicological Information

GENERAL: No potential health hazards when used within processing guidelines. Fluoropolymers are physiologically inert and are considered non-toxic.

IMMEDIATE (ACUTE) EFFECTS: See section III.

DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS: See section III

TOXICITY OF PRODUCT: Non-toxic when used within recommended guidelines.

OTHER DATA: None.

SECTION XII- Ecological Information

No known harmful effects on the environment.

SECTION XIII- Disposal Considerations

Clean material may be recycled.

Dispose of Fluoropolymer material as solid waste according to local regulations.

Dispose of packaging as solid waste according to local regulations.

Can be incinerated only if the HF effluent can be extracted from the flue gases.

This information relates only to uncontaminated product. If used in a process, which contaminates product, then disposal considerations should be re-evaluate in accordance with applicable regulations.

SECTION XIV- Transport Information

DOT designation: Not hazardous, No classification assigned.

UN No.: Not determined

ICAO/IATA: Not hazardous

There is no known transportation requirements associated with this material in the form supplied based on currently available data.

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SECTION XV- Regulatory Information

Toxic Substances Control Act (TSCA)

TSCA INVENTORY STATUS: All components are listed on the TSCA inventory.

OTHER TSCA ISSUES: This product is considered an article under TSCA.

SARA Title III/CERCLA

“Reportable Quantities” (RQ’s) and/or “Threshold Planning Quantities” (TPQ’s) exist for the following ingredients.

<u>Ingredient Name</u>	<u>SARA/CERCLA RQ (lb)</u>	<u>SARA EHS TPQ (lb)</u>
No ingredients listed in this section.		

Spills or a release resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.

SECTION 311 HAZARD CLASS: None

The following ingredients are SARA 313 “Toxic Chemicals”, CAS Numbers and weight percents are found in Section II.

<u>Ingredient Name</u>	<u>Comment</u>
No ingredients listed in this section.	

STATE RIGHT-TO-KNOW

In addition to the ingredients found in Section II, the following are listed for state right-to-know purposes.

NJ RIGHT TO KNOW: These products are manufactured from polytetrafluoroethylene (PTFE) raw materials, which may contain TFE (tetrafluoroethylene residual monomer. TFE is known by the state of NJ to cause birth defects, or other reproductive harm.

ADDITIONAL REGULATORY INFORMATION:

CALIFORNIA PROPOSITION 65 STATEMENT: These products are manufactured from polytetrafluoroethylene (PTFE) raw materials, which may contain TFE (tetrafluoroethylene residual monomer. TFE is known by the state of California to cause birth defects, or other reproductive harm.

WHMIS CLASSIFICATION (CANADA): Not a controlled substance. (Considered to be a manufactured article.)

FOREIGN INVENTORY STATUS: Not determined

SECTION XVI- Other Information

This material safety data sheet was prepared in compliance with US OSHA Hazard Communication Standard 29CFR 1910.1200 and the European Council Directive 91/155/EEC, 67/548 and 88/379/EEC as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labeling of dangerous substances and preparations.

The information and recommendations set forth above are taken from sources believed to be accurate as of the date hereof; however, Saint-Gobain Performance Plastics Corporation makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability to any user thereof. The information contained in this sheet does not constitute a hazard assessment and should not be used in place of the user’s own assessment of workplace risks as required by other health and safety legislation.