

**Saint-Gobain** Performance Plastics Corporation – Wayne Facility  
**Material Safety Data Sheet**  
**Title: NORTON® PVDF Film**

**Document #** SMP 5.0.0.37  
**Revision:** 01/23/08  
**Supersedes:** 03/01/05  
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**HMIS RATING: Health- 1 Flammability- 1 Reactivity- 0**

**SECTION I- Identification of Product**

PRODUCT NAME: NORTON® PVDF Film

OTHER/GENERIC NAMES: Polyvinylidene Fluoride film

FORM: Translucent film

PRODUCT USE: chemical tank linings, pump diaphragms, weatherable coverings, protection and decoration of metals and plastics

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> |
|--|-------------------|-----------------|
| Polyvinylidene Fluoride (PVDF) polymer | 24937-79-9        | >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, 40 CFR 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. May cause flu-like symptoms with fever and chills if thermal decomposition products are inhaled ("polymer fume fever").

INGESTION: Not anticipated under recommended usage conditions.

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. Cover with clean cotton sheeting or gauze and seek medical advice.

**EYES:** Not anticipated under recommended usage conditions. If necessary, flush eyes with plenty of water. If symptoms persist or injury is suspected, seek medical advice.

**INHALATION:** Not anticipated under recommended usage conditions. May cause flu-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.

**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:** >44%

**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:** Self contained breathing apparatus and protective clothing should be employed in a fire situation. Do not enter fire area without proper protection. Evacuate all non-essential personnel. Intervention only by capable personnel who are trained and aware of the hazards of the product.

#### SECTION VI- Accidental Release Measures

**IN CASE OF SPILLS OR OTHER RELEASE:** Sweep or pick up and dispose of in a solid waste container.

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## SECTION VII- Handling and Storage

**NORMAL HANDLING:** Product is physiologically inert and non-toxic at normal temperatures. At high temperatures decomposition 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:** Store in a clean, dry, dust-free environment to maintain material cleanliness, preferably in its original packaging. Do not store near food areas, and avoid contamination of tobacco products.

## 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:** Not applicable

**OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:** The OSHA Permissible Exposure Limit for hydrogen fluoride from decomposition is 3 ppm.

## SECTION IX- Physical and Chemical Properties

**APPEARANCE:** Transparent or translucent film.

**PHYSICAL STATE:** Solid

**ODOR:** Odorless

**SPECIFIC GRAVITY (H<sub>2</sub>O = 1):** 1.78

**SOLUBILITY IN WATER (weight %):** Insoluble

**pH:** Not applicable

**BOILING POINT:** Not applicable

**MELTING POINT:** 170 - 175 °C

**VAPOR PRESSURE:** Not applicable

**VAPOR DENSITY:** Not applicable

**EVAPORATION RATE:** Not applicable

**% VOLATILES:** Not applicable

**IGNITION TEMPERATURE:** N/A

**FLASH POINT:** Does not flash

**THERMAL DECOMPOSITION:** See Section X.

## SECTION X- Stability and Reactivity

CHEMICAL STABILITY: Stable under normal conditions.

INCOMPATIBILITIES/REACTS: Reacts with alkali metals and interhalogen compounds. Will burn in atmosphere of >44% oxygen when an ignition source is present.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation can begin at approximately 290 °C. Thermal decomposition will evolve hydrogen fluoride, carbon monoxide, carbonyl fluoride, and particulates of carbon.

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 VII.

DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS: None known. Material is considered inert.

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

OTHER DATA: None.

## SECTION XII- Ecological Information

No known harmful effects on the environment. Material is considered inert and not expected to be biodegradable or toxic.

## SECTION XIII- Disposal Considerations

Dispose of fluoropolymer material as solid waste according to federal, state, and local regulations.

Dispose of packaging as solid waste according to federal, state, and local regulations.

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

Product as shipped is not considered a RCRA hazardous waste if discarded. This information relates only to uncontaminated product. If used in a process, which contaminates product, then disposal considerations should be re-evaluated.

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**SECTION XIV- Transport Information**

DOT designation: Not hazardous  
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.

**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 releases 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.

| <u>Ingredient Name</u> | <u>Weight %</u> | <u>Comment</u> |
|------------------------|-----------------|----------------|
|------------------------|-----------------|----------------|

No ingredients listed in this section.

ADDITIONAL REGULATORY INFORMATION:

This material is not subject to California Safe Drinking Water and Toxic Enforcement Act (Proposition 65) reporting.

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

FOREIGN INVENTORY STATUS: Not determined

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**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.