



# SAFETY DATA SHEET

**Eco-PJF Part A**

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

## 1. PRODUCT IDENTIFICATION

**1.1 TRADE NAME (AS LABELED):**

**Tennant Eco-PJF Part A**

**SYNONYMS:**

Polyurethane Elastomer

**CAS#:**

Mixture

**PRODUCT #:**

9012979, 9012982, 9012984, 9012985, 9012986, 9012987

**1.2 PRODUCT USE:**

Part A of a two-component poured polyurethane elastomer

**CHEMICAL SHIPPING NAME/CLASS:**

See Section 14 for Details

**U.N. NUMBER:**

See Section 14 for Details

**1.3 NORTH AMERICA:**

**MANUFACTURER'S NAME:**

**Tennant Company**

**ADDRESS:**

701 North Lilac Drive, P.O. Box 1452, Minneapolis, MN 55440-1452

**BUSINESS PHONE:**

1-763-540-1200

**1.4 EUROPE:**

**MANUFACTURER'S NAME:**

**Tennant Benelux N.V.**

**ADDRESS:**

Roderveldaan 3, 2600 Antwerpen, Belgium

**BUSINESS PHONE:**

+32-3-2179411

**EMERGENCY PHONE:**

800-424-9300 (Chemtrec U.S. – 24 Hrs)

1-703-527-3887 (Chemtrec International – 24 Hrs)

[info@tennantco.com](mailto:info@tennantco.com)

**EMAIL:**

**DATE OF CURRENT REVISION:**

August 30, 2017

**DATE OF LAST REVISION:**

February 24, 2015

## 2. HAZARD IDENTIFICATION

**EMERGENCY OVERVIEW:** This product is a pigmented liquid with a slight odor.

**Health Hazards:** Exposure may cause mild to moderate irritation to skin. May cause moderate irritation to eyes upon contact.

**Flammability Hazards:** This product is a Non-Flammable liquid with a flash point of >200°F (>93°C)

**Reactivity Hazards:** None known

**Environmental Hazards:** The Environmental effects of this product have not been investigated. Release of this product may have significant adverse effects in the aquatic environment.

US DOT SYMBOLS

CANADA (WHMIS) SYMBOLS

EUROPEAN and (GHS) Hazard Symbols

See Section 14 for Details

Complies with WHMIS 2015

None Applicable

Signal Word: **None**

**2.1 EU LABELING AND CLASSIFICATION:**

This product does not meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

**EU HAZARD CLASSIFICATION OF INGREDIENTS:**

**Index Number:**

**EC# 236-675-5 This substance is not classified in the Annex VI**

**EC# 226-112-6 This substance is not classified in the Annex VI**

**EC# 231-545-4 This substance is not classified in the Annex VI**

**EC# 212-828-1 Annex VI Index# 606-021-00-7**

**EC# 215-609-9 This substance is not classified in the Annex VI**

Substances not listed either individually or in group entries must be self classified.

**Component(s) Contributing to Classification(s)**

None applicable

**2.2 LABEL ELEMENTS:**

**GHS Hazard Classification(s):**

Not Classified



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**Hazard Statement(s):**

Not applicable

**Prevention Statement(s):**

Not applicable

**Response Statement(s):**

Not applicable

**Storage Statement(s):**

Not applicable

**Disposal Statement(s):**

Not applicable

**2.3 HEALTH HAZARDS OR RISKS FROM EXPOSURE:**

**SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE:** The most significant routes of overexposure for this product are by contact with skin or eyes, inhalation and ingestion. The symptoms of overexposure are described below.

**ACUTE:**

**INHALATION:** Inhalation of vapors or mists in high concentrations may cause respiratory irritation.

**CONTACT WITH SKIN:** Prolonged or repeated contact may cause irritation.

**EYE CONTACT:** Direct contact may cause irritation.

**INGESTION:** Ingestion may cause irritation of the gastrointestinal tract and gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting, lethargy, or diarrhea.

**CHRONIC:** No data available.

**TARGET ORGANS:** Acute: No Data Chronic: No Data

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS#	EINECS #	Hazard Classification
Titanium Dioxide	>10%	13463-67-7	236-675-5	Not Classified
4,4'-methylenebis[N-sec-butylaniline]	<5%	5285-60-9	226-112-6	Acute Tox Cat 4 (Oral)
Precipitated silica (silica - amorphous)	<5%	7631-86-9	231-545-4	Not Classified
N-methyl-2-pyrrolidone	<0.1	872-50-4	212-828-1	Acute Tox Cat 3 (Inhal), Repr. Cat 1, Skin Irrit. Cat 2, Eye Irrit Cat 2A, STOT SE Cat 3, Flam Liq Cat 4
Carbon Black	<1	1333-86-4	215-609-9	Not Classified
Balance of other ingredients is less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

## 4. FIRST-AID MEASURES

**4.1 DESCRIPTION OF FIRST AID MEASURES:**

**EYE CONTACT:** If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention.

**SKIN CONTACT:** Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.

**INHALATION:** If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

**INGESTION:** If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Some individuals may develop skin sensitization from exposure.

**4.2 SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:**

None known

**4.3 RECOMMENDATIONS TO PHYSICIANS:**

Treat symptoms and eliminate overexposure.



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## 5. FIRE-FIGHTING MEASURES

### 5.1 FIRE EXTINGUISHING MATERIALS:

**FIRE EXTINGUISHING MATERIALS:** Use fire extinguishing methods below:

- Water Spray: Yes
- Carbon Dioxide: Yes
- Foam: Yes
- Dry Chemical: Yes
- Halon: Yes
- Other: Any "C" Class

### 5.2 UNUSUAL FIRE AND EXPLOSION HAZARDS:

No data available for this product.

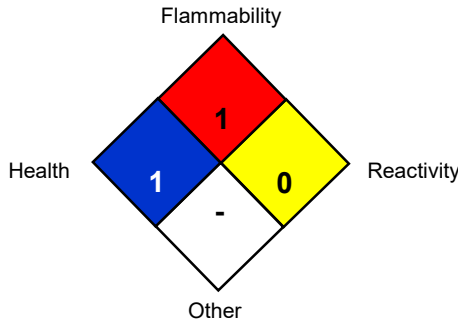
Explosion Sensitivity to Mechanical Impact: No

Explosion Sensitivity to Static Discharge: No

### 5.3 SPECIAL FIRE-FIGHTING PROCEDURES:

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

#### NFPA RATING SYSTEM



#### HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)	1		
FLAMMABILITY HAZARD (RED)	1		
PHYSICAL HAZARD (YELLOW)	0		
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8
For Routine Industrial Use and Handling Applications			

**Hazard Scale:** 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

See section 8.2 for Exposure Controls.

### 6.2 ENVIRONMENTAL PRECAUTIONS:

None known

### 6.3 SPILL AND LEAK RESPONSE:

Stop the flow of material, if this can be done safely. Floor may be slippery; use care to avoid falling. Dike and contain the spill with inert material (sand, earth, fuller's earth, etc.) and if appropriate, transfer the liquid and solid diking material to containers for disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Wash clothing before reuse. Keep spill out of all sewers and open bodies of water. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

## 7. HANDLING and STORAGE

### 7.1 PRECAUTIONS FOR SAFE HANDLING:

Use good hygiene practices. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Use good hygiene practices.



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## 7.2 STORAGE AND HANDLING PRACTICES:

Store in original container. Keep container closed. Store in a cool, dry location. Avoid exposure to ignition sources and incompatible materials.

## 7.3 SPECIFIC USES:

See section 1.2 for details.

## 8. EXPOSURE CONTROLS - PERSONAL PROTECTION

### 8.1 EXPOSURE PARAMETERS:

Chemical Name	CAS#	ACGIH TLV	OSHA TWA
Titanium Dioxide	13463-67-7	10 mg/m <sup>3</sup>	Not Listed
4,4'-methylenebis[N-sec-butylaniline]	5285-60-9	Not Listed	Not Listed
Precipitated silica (silica - amorphous)	7631-86-9	Not Listed	20 Million particles per cubic foot
N-methyl-2-pyrrolidone	872-50-4	Not Listed	Not Listed
Carbon Black	1333-86-4	3.5 mg/m <sup>3</sup>	3.5 mg/m <sup>3</sup>

### 8.2 EXPOSURE CONTROLS:

**VENTILATION AND ENGINEERING CONTROLS:** Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

*The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.*

**RESPIRATORY PROTECTION:** Maintain airborne contaminant concentrations below guidelines listed above. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

**EYE PROTECTION:** Safety glasses or chemical splash goggles are recommended to avoid contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

**HAND PROTECTION:** Chemical resistant gloves are recommended to prevent contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

**BODY PROTECTION:** Use as appropriate to prevent skin contact. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

## 9. PHYSICAL and CHEMICAL PROPERTIES

### 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

**APPEARANCE (Physical State) and COLOR:** This product is a pigmented liquid with a slight odor.

**ODOR:** Slight

**ODOR THRESHOLD:** Not Available

**pH:** 10-12

**MELTING/FREEZING POINT:** Not determined

**BOILING POINT:** >392°F (>200°C)

**FLASH POINT:** >374°F (>190°C)

**EVAPORATION RATE (n-BuAc=1):** Not Available

**FLAMMABILITY (SOLID, GAS):** Not Applicable

**UPPER/LOWER FLAMMABILITY OR EXPLOSION LIMITS:** Not Available

**VAPOR PRESSURE (mm Hg @ 20°C (68°F):** <1.3 hPa (<1 mm Hg)

**VAPOR DENSITY:** 1.02 - 1.05 g/cm<sup>3</sup> (8.512 - 8.762 lbs/gal)

**RELATIVE DENSITY:** Not Available

**DENSITY:** Not Available



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**SPECIFIC GRAVITY:** Not Available  
**SOLUBILITY IN WATER:** Fully miscible.  
**WEIGHT PER GALLON:** Not Available  
**PARTITION COEFFICIENT (n-octanol/water):** Not Available  
**AUTO-IGNITION TEMPERATURE:** Not Available  
**DECOMPOSITION TEMPERATURE:** Not Available  
**VISCOSITY:** Not Available  
**VOC g/l / Lb/gal:** Not Available

## **9.2 OTHER INFORMATION:**

No additional information available.

## 10. STABILITY and REACTIVITY

### **10.1 REACTIVITY:**

This product is not reactive.

### **10.2 STABILITY:**

Stable under conditions of normal storage and use.

### **10.3 POSSIBILITY OF HAZARDOUS REACTIONS:**

Will not occur.

### **10.4 CONDITIONS TO AVOID:**

Incompatible materials, excessive heat.

### **10.5 MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:**

Oxidizing agents, strong alkalis, acids.

### **10.6 HAZARDOUS DECOMPOSITION PRODUCTS:**

Thermal decomposition products of this solution can include a variety of compounds (i.e., carbon monoxide, carbon dioxide, nitrogen oxides and other compounds).

## 11. TOXICOLOGICAL INFORMATION

### **11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:**

N-methyl-2-pyrrolidone CAS# 872-50-4

Oral rat LD50: 4150 mg/kg

Dermal rat LD50: >5000 mg/kg

Inhalation rat LC50 (4h): >5.1 mg/l

**SUSPECTED CANCER AGENT:** Ingredients within this product are found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are considered to be, or suspected to be, cancer-causing agents by these agencies.

IARC (International Agency for Research on Cancer):

13463-67-7 titanium dioxide 2B

1333-86-4 carbon black 2B

**IRRITANCY OF PRODUCT:** This product may be irritating to skin, eyes or respiratory system

**SENSITIZATION TO THE PRODUCT:** This product is not expected to be a skin sensitizer

**REPRODUCTIVE TOXICITY INFORMATION:** No information concerning the effects of this product and its components on the human reproductive system.

**MUTAGENICITY INFORMATION:** No information concerning the effects of this product and its components.

## 12. ECOLOGICAL INFORMATION

### **12.1 TOXICITY:**

No toxicity data available.

### **12.2 PERSISTENCE AND DEGRADABILITY:**

No specific data available on this product.

### **12.3 BIOACCUMULATIVE POTENTIAL:**

No specific data available on this product.

### **12.4 MOBILITY IN SOIL:**

No specific data available on this product.



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Eco-PJF Part A

## **12.5 RESULTS OF PBT AND vPvB ASSESSMENT:**

No specific data available on this product.

## **12.6 OTHER ADVERSE EFFECTS:**

No specific data available on this product.

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

## **12.7 WATER ENDANGERMENT CLASS:**

Not water endangering in accordance with EU Guideline 91/155-EWG.

## **12.8 SPECIFIC AVAILABLE COMPONENT INFORMATION:**

No specific data available on this product.

## 13. DISPOSAL CONSIDERATIONS

### **13.1 WASTE TREATMENT METHODS:**

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

### **13.2 EU Waste Code:**

Not determined

## 14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

**U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS:** This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

**14.1 PROPER SHIPPING NAME:** Not Regulated

**14.2 HAZARD CLASS NUMBER and DESCRIPTION:** N/A

**14.3 UN IDENTIFICATION NUMBER:** N/A

**14.4 PACKING GROUP:** N/A

**14.5 DOT LABEL(S) REQUIRED:** N/A

**14.6 NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER:** N/A

**RQ QUANTITY:** N/A

**MARINE POLLUTANT:** Components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

### **14.7 SPECIAL PRECAUTIONS FOR USER:**

None

### **14.8 INTERNATIONAL TRANSPORTION:**

**INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA):** This product is not considered as dangerous goods unless any part of shipment will be by vessel.

**INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO):** This product is not considered as dangerous goods.

### **14.9 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND IBC CODE:**

**EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR):** This product is not considered by the United Nations Economic Commission for Europe to be dangerous goods.

## 15. REGULATORY INFORMATION

### **15.1 UNITED STATES REGULATIONS:**

**U.S. SARA REPORTING REQUIREMENTS:** The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act. None

**U.S. SARA THRESHOLD PLANNING QUANTITY:** There are no specific Threshold Planning Quantities for the components of this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

**U.S. CERCLA REPORTABLE QUANTITY (RQ):** None

**U.S. TSCA INVENTORY STATUS:** The components of this product are listed on the TSCA Inventory or are exempted from listing.

**OTHER U.S. FEDERAL REGULATIONS:** None



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**CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):** This product contains Titanium Dioxide and Carbon Black which are on the Prop 65 List but are not unbound respirable particles and therefore not applicable to the regulations.

### **15.2 CANADIAN REGULATIONS:**

**CANADIAN DSL/NDSL INVENTORY STATUS:** The components of this product are on the DSL Inventory, or are exempted from listing.

**OTHER CANADIAN REGULATIONS:** Not applicable.

### **CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**CANADIAN WHMIS CLASSIFICATION and SYMBOLS:** Complies with WHMIS 2015

### **15.3 EUROPEAN ECONOMIC COMMUNITY INFORMATION:**

This product does not meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

See Section 2 for full Details

**15.4 AUSTRALIAN INFORMATION FOR PRODUCT:** The components of this product are listed on the International Chemical Inventory list.

### **15.5 JAPANESE INFORMATION FOR PRODUCT:**

**JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS:** The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

**JAPANESE ENCS INVENTORY:** The components of this product are on the ENCS Inventory as indicated in the section on International Chemical Inventories, below.

**POISONOUS AND DELETERIOUS SUBSTANCES CONTROL LAW:** No component of this product is a listed Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

### **15.6 INTERNATIONAL CHEMICAL INVENTORIES:**

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac: Listed

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed

Swiss Giftlist List of Toxic Substances: Listed

U.S. TSCA: Listed

## 16. OTHER INFORMATION

**PREPARED BY:** Chris Eigbrett – (MSDS to GHS Compliance)

**DATE OF PRINTING:** August 30, 2017

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Tennant Company assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Tennant Company assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

**END OF SDS SHEET**