



Approval Date : 05/26/2015  
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# SAFETY DATA SHEET

## SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

### 1.1 Product Identifier

Product Name : Millathane® 5004  
CAS Number : 27083-55-2  
Product Description : Polyester Millable Polyurethane

### 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Use(s) : Raw material ingredient in Rubber Industry  
Restrictions on Use(s) : None known

### 1.3 Supplier

: TSE Industries, Inc.  
5260 113<sup>th</sup> Avenue North  
Clearwater, FL 33760  
Tel: (727) 573-7676  
Fax: (727) 572-0415

SDS Contact : [SDSInquiry@TSE-Industries.com](mailto:SDSInquiry@TSE-Industries.com)

Hours of Operation : Monday-Friday, 8:00 am-5:00 pm EST

### 1.4 Emergency Telephone

: INFOTRAC®  
North America: +1-800-535-5053

## SECTION 2: Hazards Identification

### 2.1 Classification of the Substance or Mixture

Product Definition : Mono-constituent substance  
Physical Hazards : Not Classified as physical hazard according to 2012 OSHA Hazard Communication Standard: 29 CFR1910.1200  
Health Hazards : Not Classified as health hazard according to 2012 OSHA Hazard Communication Standard: 29 CFR1910.1200

### 2.3 Hazard Not Otherwise Classified

Asphixiant : None  
Combustible Dust : None

## SECTION 3: Composition/Information on Ingredients

Substance/Mixture : Mono-constituent substance

PRODUCT/INGREDIENT NAME	CAS#	%
Hexanedioic acid, polymer with 1,4-butanediol, 1,2-ethanediol, 1,1-methylenebis[4-isocyanatobenzene]	27083-55-2	100

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

## SECTION 4: First Aid Measures

### 4.1 Description of First Aid Measures

- Eye Contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if irritation symptoms occur.
- Skin Contact** : Flush contaminated skin with soap and water. Get medical attention if irritation symptoms occur.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Protection of First-Aiders** : No action shall be taken involving any personal risk or without suitable training

### 4.2 Most Important Symptoms of Exposure

- Potential Acute Symptoms** : No known significant effects or critical hazards
- Potential Chronic Symptoms** : No known significant effects or critical hazards

### 4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

- Notes to Physician** : Treat symptomatically.
- Special Treatments** : No specific procedure.

## SECTION 5: Firefighting Measures

### 5.1 Extinguishing Media

- Suitable Extinguishing Media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable Extinguishing Media** : None known

### 5.2 Special Hazards Arising from the Substance or Mixture

- Hazards from the Substance or Mixture** : No specific fire or explosion hazard
- Hazardous Thermal Decomposition Products** : Carbon dioxide, carbon monoxide, oxides of nitrogen, cyanides, and irritating organic vapors.

### 5.3 Advice for Firefighters

- Special Protective Actions for Firefighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Large fire can be extinguished with large volumes of water applied from a safe distance.
- Special Protective Equipment for Firefighters** : Firefighters should wear NFPA compliant firefighting protective equipment and self-contained breathing apparatus (SCBA).

## SECTION 6: Accidental Release Measures

### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures

- Emergency Response Personnel** : Evacuate surrounding area. Keep unnecessary and unprotected personnel from entering spill area. Do not touch or walk through spilt material. Put on appropriate personal protective equipment as specified in Section 8 of this SDS. Ventilate and remove ignition sources.

- 6.2 Environmental Precautions** : Avoid contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and Materials for Containment and Cleaning Up

- Small Spill** : Move containers from spill area. Vacuum or sweep up material into an approved container for disposal. Seal the container and dispose according to instructions in Section 13 of this SDS.
- Large Spill** : Call Infotrac emergency telephone in Section 1 of this SDS.

## SECTION 7: Handling and Storage

### 7.1 Handling

- Protective Measures** : Wear appropriate personal protective equipment, as specified in Section 8 of this SDS, while handling this material.
- Handling** : Eating, drinking and smoking should be prohibited in the areas where this material is handled. Clean any spills immediately and decontaminate surface according to procedure in Section 6.

### 7.2 Storage

- : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Do not store in unlabeled containers.

## SECTION 8: Exposure Controls/Personal Protection

### 8.1 Occupational Exposure Limits

Occupational Exposure Limits have not been established for this material.

- Recommended Monitoring** : There are no methods for the assessment of exposure by inhalation to this material.

### 8.2 Exposure Controls

- Engineering Controls** : Good general ventilation should be sufficient to control worker to exposure to airborne contaminants.  
Provide local exhaust ventilation to keep airborne concentration below the recommended occupational exposure limit if material is ground, cut or used in any operation that may generate excessive heat or dust
- Environmental Controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation if material is ground, cut or used in any operation that may generate excessive heat or dust. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

#### Individual Protection Measures

- Hygiene Measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/Face Protection** : Safety goggles or combination of goggles complying with OSHA 1910.133 standard to avoid exposure to liquid splashes.
- Hand Protection** : Chemical-resistant gloves complying with OSHA 1910.138 standard should be worn at all times when handling chemical products. Recommended gloves: Nitrile rubber
- Body Protection** : General work clothing provides sufficient protection while handling this product. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist during further processing of this material.
- Foot Protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Foot protection should comply with OSHA 1910.136 standard.
- Respiratory Protection** : Use air-purifying respirator complying with OSHA 1910.134 standard if a risk assessment indicates this is necessary. Recommended air-purifying respirator cartridge is an organic vapor with particulate filter (Combination OV/P100) cartridge.

## SECTION 9: Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

#### Appearance

- Physical State** : Solid
- Color** : White to opaque
- Odor** : Characteristic [Slight]

<b>Odor Threshold</b>	:	No data available
<b>pH</b>	:	No data available
<b>Melting Point/Freezing Point</b>	:	No data available
<b>Initial Boiling Point &amp; Boiling Range</b>	:	No data available
<b>Flash Point</b>	:	No data available
<b>Evaporation Rate</b>	:	No data available
<b>Flammability</b>	:	No data available
<b>Upper/Lower Flammability or Explosive Limits</b>	:	No data available
<b>Vapor Pressure</b>	:	No data available
<b>Vapor Density</b>	:	No data available
<b>Relative Density</b>	:	1.21 g/cm <sup>3</sup>
<b>Solubility(ies)</b>	:	Soluble in Tetrahydrofuran, Dimethylformamide and chlorinated solvents
<b>Partition Coefficient: n-octano/water</b>	:	No data available
<b>Auto-ignition Temperature</b>	:	No data available
<b>Decomposition Temperature</b>	:	>170°C (350°F)
<b>Viscosity</b>	:	Not available
<b>9.2 Other Information</b>	:	None

## SECTION 10: Stability and Reactivity

<b>10.1 Reactivity</b>	:	No specific data is available related to reactivity of this material.
<b>10.2 Chemical Stability</b>	:	Stable at room temperature in closed containers under normal storage and handling condition (70°F and 14.7psig).
<b>10.3 Possibility of Hazardous Polymerization</b>	:	Hazardous polymerization does not occur under normal storage and handling condition (70°F and 14.7psig).
<b>10.4 Conditions to Avoid</b>	:	Extreme heat, light and moisture.
<b>10.5 Incompatible Materials</b>	:	Oxidizing materials.
<b>10.6 Hazardous Decomposition Products</b>	:	Under normal conditions of storage and use, hazardous decomposition should not occur. Thermal decomposition may release: Carbon dioxide, carbon monoxide, oxides of nitrogen, cyanides and irritating organic vapors.

## SECTION 11: Toxicological Information

### Toxicity Data for Polyester Millable Polyurethane

<b>Acute Toxicity</b>	:	No data available
<b>Sensitization</b>	:	No data available
<b>Skin Irritation</b>	:	No data available
<b>Eye Irritation</b>	:	No data available
<b>Repeated Dose Toxicity</b>	:	No data available
<b>Mutagenicity</b>	:	No data available
<b>Carcinogenicity</b>	:	No data available
<b>Reproductive Toxicity</b>	:	No data available
<b>Teratogenicity</b>	:	No data available
<b>Specific Target Organ Toxicity (single exposure)</b>	:	No data available

<b>Specific Target Organ Toxicity (repeated exposure)</b>	:	No data available
<b>Aspiration Hazard</b>	:	No data available
<b>Information on the Likely Routes of Exposure</b>	:	Not available

**Potential Acute Health Effects**

<b>Eye Contact</b>	:	No known significant effects or critical hazards.
<b>Inhalation</b>	:	No known significant effects or critical hazards.
<b>Skin Contact</b>	:	No known significant effects or critical hazards.
<b>Ingestion</b>	:	No known significant effects or critical hazards.

**Delayed and Immediate Effects and also Chronic Effects from Short and Long Term Exposure****Short Term Exposure**

<b>Potential Immediate Effects</b>	:	Not available.
<b>Potential Delayed Effects</b>	:	Not available.

**Long Term Exposure**

<b>Potential Immediate Effects</b>	:	Not available.
<b>Potential Delayed Effects</b>	:	Not available.

**Potential Chronic Health Effects**

<b>General</b>	:	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	:	No known significant effects or critical hazards.
<b>Mutagenicity</b>	:	No known significant effects or critical hazards.
<b>Teratogenicity</b>	:	No known significant effects or critical hazards.
<b>Developmental Effects</b>	:	No known significant effects or critical hazards.
<b>Fertility Effects</b>	:	No known significant effects or critical hazards.
<b>Other Information</b>	:	None

**SECTION 12: Ecological Information**

<b>12.1 Ecotoxicity</b>	:	No data available
<b>12.2 Persistence and Degradability</b>	:	No data available
<b>12.3 Bioaccumulative Potential</b>	:	No data available
<b>12.4 Mobility in Soil</b>		
<b>Soil/Water Partition Coefficient (<math>K_{oc}</math>)</b>	:	No data available
<b>Mobility</b>	:	No data available
<b>12.5 Other Adverse Effects</b>	:	No known significant effects or critical hazards.

**SECTION 13: Disposal Considerations**

<b>13.1 Waste Treatment Methods</b>		
<b>Methods of Disposal</b>	:	Dispose product via a licensed waste disposal contractor in accordance with existing federal, state and local environmental laws. Incineration is the preferred method.
<b>Empty Container Disposal</b>	:	Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
<b>Special Precautions</b>	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

**SECTION 14: Transport Information**

<u>Land Transport (DOT)</u>	:	Non-Regulated
<u>Sea Transport (IMODG)</u>	:	Non-Regulated
<u>Air Transport (ICAO/IATA)</u>	:	Non-Regulated
<u>Additional Transportation Information</u>	:	None

## SECTION 15: Regulatory Information

U.S. EPA CERCLA Hazardous Substances (40CFR302.4)

Components

None

Reportable quantity

U.S. EPA SARA TITLE III: Section 311/312 Categorizations (40CFR370)

: None

U.S. EPA Emergency Planning and Community Right-to-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substances (40CFR 355, Appendix A)

: None

U.S. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65)-Supplier Notification Required

: This product does not contain a chemical which is listed in Section 313 at or above 'de minimis' concentrations.

U.S. Toxic Substances Control Act

: This material is on the TSCA Inventory list.

### State Right-to-Know Information

The following chemical is specifically listed by individual states; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>	<u>State</u>
	None		

### California Proposition 65

To the best of our knowledge, this product does not contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

## SECTION 16: Other information

### Abbreviations and Acronyms

ATE	:	Acute Toxicity Estimate
DNEL	:	Derived No Effect Level
ACGIH	:	American Conference of Governmental Industrial Hygienists
CASRN	:	Chemical Abstracts Service Registry Number
IARC	:	International Agency for Research on Cancer
N/A	:	Not Applicable
N/D	:	Not Determined

N/E	:	Not Established
NTP	:	National Toxicology Program
OSHA	:	Occupational Safety & Health Administration
PEL	:	Permissible Exposure Limit
PPE	:	Personal Protective Equipment
STEL	:	Short Term (15 min) Exposure Limit
STP	:	Standard Temperature and Pressure
TLV	:	Threshold Limit Value
TWA	:	Time Weighted Average (8 hr.) Time Weighted Average (8 hr.)

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