



Approval Date : 05/27/2015

Supersedes Date : None

SAFETY DATA SHEET

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

1.1 Product Identifier

Product Name : Millathane® 5004 Premilled
 CAS Number : Mixture
 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 113th Avenue North
 Clearwater, FL 33760
 Tel: (727) 573-7676
 Fax: (727) 572-0415

SDS Contact : 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 : Mixture
 Physical Hazards : Not Classified as physical hazard according to 2012 OSHA Hazard Communication Standard: 20 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

Asphyxiate : None
 Combustible Dust : None

SECTION 3: Composition/Information on Ingredients

Substance/Mixture : Mixture

PRODUCT/INGREDIENT NAME	CAS#	%
Hexanedioic acid, polymer with 1,4-butanediol, 1,2-ethanediol and 1,1-methylenebis[4-isocyanatobenzene]	27083-55-2	98.52
Aromatic polycarbodiimide	CONFIDENTIAL	1.48

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.
- Potential Chronic Symptoms** : No known significant effects.

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, CO₂, 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 extinguisher 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 areas. Keep unnecessary and unprotected personnel from entering spill area. Do not touch or walk through spill material. Put on appropriate personal protective equipment as specified in Section 8 of the 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 fold 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]
Odor Threshold	:	No data available
pH	:	No data available
Melting Point/Freezing Point	:	No data available
Initial Boiling Point & Boiling Range	:	No data available
Flash Point	:	No data available
Evaporation Rate	:	No data available
Flammability	:	No data available
Upper/Lower Flammability or Explosive Limits	:	No data available
Vapor Pressure	:	No data available
Vapor Density	:	No data available
Relative Density	:	1.21 g/cm ³
Solubility(ies)	:	Soluble in Tetrahydrofuran, Dimethylformamide and chlorinated solvents
Partition Coefficient: n-octano/water	:	No data available
Auto-ignition Temperature	:	No data available
Decomposition Temperature	:	>170°C (350°F)
Viscosity	:	No data available
9.2 Other Information	:	None

SECTION 10: Stability and Reactivity

10.1 Reactivity	:	No specific data is available related to reactivity of this material.
10.2 Chemical Stability	:	Stable at room temperature in closed containers under normal storage and handling condition (70°F and 14.7psig).
10.3 Possibility of Hazardous Polymerization	:	Hazardous polymerization does not occur under normal storage and handling condition (70°F and 14.7psig).
10.4 Conditions to Avoid	:	Extreme heat, light and moisture.
10.5 Incompatible Materials	:	Oxidizing materials
10.6 Hazardous Decomposition Products	:	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

Information on toxicological effects of material is not available. Individual component information and calculations method have been used to evaluate health and physical hazards of the mixture.

Toxicity Data for Polyester Millable Polyurethane

Acute Toxicity	:	No data available
Sensitization	:	No data available
Skin Irritation	:	No data available
Eye Irritation	:	No data available
Repeated Dose Toxicity	:	No data available
Mutagenicity	:	No data available
Carcinogenicity	:	No data available
Reproductive Toxicity	:	No data available
Teratogenicity	:	No data available

Specific Target Organ Toxicity (single exposure)	:	No data available
Specific Target Organ Toxicity (repeated exposure)	:	No data available
Aspiration Hazard	:	No data available
Information on the Likely Routes of Exposure	:	No data available

Potential Acute Health Effects

Eye Contact	:	No known significant effects or critical hazards.
Inhalation	:	No known significant effects or critical hazards.
Skin Contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.

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

Potential Immediate Effects	:	Not available.
Potential Delayed Effects	:	Not available.

Long Term Exposure

Potential Immediate Effects	:	Not available.
Potential Delayed Effects	:	Not available.

Potential Chronic Health Effects

General	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	No known significant effects or critical hazards.
Developmental Effects	:	No known significant effects or critical hazards.
Fertility Effects	:	No known significant effects or critical hazards.

Other Information

: None

Toxicity Data for Aromatic Polycarbodiimide

Acute Toxicity	:	Oral LD ₅₀ : >5000 mg/kg (rat) Dermal LD ₅₀ : No data available Inhalation LC ₅₀ : No data available
Sensitization	:	Not available
Skin Irritation	:	Not available
Eye Irritation	:	Not available
Repeated Dose Toxicity	:	Not available
Mutagenicity	:	Not available
Carcinogenicity	:	Not available
Reproductive Toxicity	:	Not available
Teratogenicity	:	Not available
Specific Target Organ Toxicity (single exposure)	:	Not available
Specific Target Organ Toxicity (repeated exposure)	:	Not available
Aspiration Hazard	:	Not available
Information on the Likely Routes of Exposure	:	Dermal contact. Eye contact, Inhalation, Ingestion

Potential Acute Health Effects

Eye Contact	:	No known significant effects or critical hazards.
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Inhalation	:	No known significant effects of critical hazards.
Skin Contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.

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

Short Term Exposure

Potential Immediate Effects	:	Not available.
Potential Delayed Effects	:	Individuals with permanent lung sensitivity caused by isocyanate exposure can experience symptoms which can include chest tightness, wheezing, cough, shortness of breath or asthmatic attack. These symptoms can be triggered by exposure to dust, cold air, or other irritants and can last for weeks and in severe cases for years.

Long Term Exposure

Potential Immediate Effects	:	Not available.
Potential Delayed Effects	:	Not available.

Potential Chronic Health Effects

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

SECTION 12: Ecological Information

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

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods	:	
Methods of Disposal	:	Dispose product via a licensed waste disposal contractor in accordance with existing federal, state and local environmental laws. Incineration is the preferred method.
Empty Container Disposal	:	Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special Precautions	:	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

Additional Transportation Information : 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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