

## Material Safety Data Sheet

### Section 1 – Chemical Product and Company Identification

**Sample Name: Thermoplastic Polyurethane 200 SERIES**

Synonyms: --

Molecular formula: --

Company Identification: PACIFIC TPU INC.

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### Section 2 – Composition, Information on Ingredients

CAS No.	Chemical Name	Percent	EINECS/ELINCS
-	Polycaprolactone	99%	
	additive	1%	

### Section 3 – Hazards Identification

#### EMERGENCY OVERVIEW

At ambient temperature, there are no known or expected effects.

At elevated temperatures. (e.g. at melt processing temperature, or combustion temperature), this product may emit fumes and vapors. Poor ventilation may irritate the eyes, skin and respiratory system.

Fatalness sort: No information found.

Potential Health Effects: inhale steam, skin or eyes contact with molten polymer.

Health Hazard:

- Eye: at elevated temperature, the product may emit fumes and vapors that cause irritation to the eyes.
- Skin: At elevated temperature, the product may emit fumes and vapors that cause irritation to the skin. The molten products cause skin burn.
- Inhalation: The fumes and vapors cause respiratory tract irritation.

Environment harm: No information found.

## Section 4 – First Aid Measures

Eyes: Flush with water

Skin: Flush skin with plenty of suds. If skin contact with the molten products, refrigerating with water or ice. Get medical aid, eliminate the adhesion, and treat the burned surface.

Inhalation: If inhaled the gases or decompose products emitted at high-temperature processing, removing from exposure and move to fresh air immediately. Get medical aid.

Ingestion: No adverse effects

## Section 5 – Fire Fighting Measures

General information: At high-temperature or fire, the products emit fumes, vapors and irritating compounds

Extinguishing Media: SMALL FIRE: Use dry chemical, CO<sub>2</sub>, sprinkler or foam

LARGE FIRE: Use water spray, fog or foam. Do not use water column.

Protection of fire-fighter: Fire-fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear. Dispersing the crowd and isolating the fire source.

## Section 6 – Accidental Release Measures

If spillage, clean and put them into containers, recycle or waste disposal

## Section 7 – Handling and Storage

Handling: Do not machine products at the condition exceed the elevated temperature. Provided with well-ventilation, and set local ventilated equipment. Avoid breathing process fumes, vapors dust, vapor, mist, or gas. Wash thoroughly after processing. Do not store or consume food in processing areas. Always transfer product by means which avoid static buildup. Avoid pouring from its container into combustible or flammable solvent. Avoid sprinkling the granule, preventing fall.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Keep product in a cool, dry, ventilated area. Do not store in direct sunlight. Store in a tightly and closed container. Store protected from moisture. Avoid excessive heat. Do not store near flammable agents.

## Section 8 – Exposure Controls, Personal Protection

ACGIH TLV: MAC(mg/m<sup>3</sup>): --

TWA(mg/m<sup>3</sup>): --

STEL(mg/m<sup>3</sup>): --

Monitoring methods: No information found.

Engineering controls: always provide effective general, and when necessary, local exhaust ventilation to draw spray, aerosol, fume, mist, and vapor away from workers to prevent routine inhalation.

Respiratory protection: at normal circumstances, have no use for respiratory protection, in the absence of adequate ventilation conditions, high temperature processing, should be equipped with an air purifier.

Eyes: The existence of solid particles or contact with the potentially dangerous vapor cause eyestrain or unwell, to wear goggles.

Skin: The thermal processing, handling hot products must wear gloves.

Other protection: No smoking scene work. To maintain good health habits.

## Section 9 – Physical and Chemical Properties

Appearance: global granule, colorless, transparent

Odor: Tasteless

PH: -

Melting point: 195~205°C

Boiling point: Not available

Molecular Weight: --

Consistency (water=1): Not available

Vapor Density (Air=1): 1.12 g/cm<sup>3</sup>

Saturated vapor pressure: Not available

Octanol / water distribution coefficient: Not available

Flash point (°C) : Not available

Ignition Temperature (°C) : Not available

Explosion Limits Lower: Not available

Critical pressure (MPa): Not available

Solubility: insoluble

Major uses: shoe materials, films, elastic, auto parts, wheels, and other engineering plastics.

## Section 10 – Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to avoid: avoid heating and operating at the temperature above 260°C.

Hazardous Decomposition Products: Volatiles may be evolved during overheating, combustion, or decomposition. These potential decomposition gases have not been fully determined but may include CO, CO<sub>2</sub> and small amounts of hydrogen, cyanide, oxides of nitrogen, hydrocarbons, isocyanates, water vapor and /or combinations of the previous and smoke substances listed under thermal processing emissions may also be present.

Hazardous Polymerization: Can not occur.

## Section 11 – Toxicological Information

Oral rate: LD: Not available

LC: Not available

Excitant: at elevated temperature (e.g. At melt processing temperature or combustion temperature), this product may emit fumes and vapors that cause irritation to body. Solid or dust due to mechanical movement irritate eye. At normal temperature, there is no irritating to the skin.

Sensitivity: inhalation of high temperature gas generated sensitized to the human body, at a high temperature, gas likely to have skin sensitivity.

## Section 12 – Ecological Information

Ecological toxicity: Not available

Ecological degradation: Not available

Abiology degradation: Not available

Other harmful information: The products have no negative impact, since it is insoluble in water, so the product has a very low toxicity of aquatic organisms.

## Section 13 – Disposal Considerations

Nature: Untapped products are not considered as hazardous waste

Disposal: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any other regional local authority requirements.

## Section 14 – Transport Information

DOT

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

LATA

Non- Hazardous for Air Transport: Non-hazardous for air transport.

IMO

Non- Hazardous for Sea Transport: Non-hazardous for sea transport.

ADR/RID Class: None

Non- Hazardous for Transport: This substance is considered to be non-hazardous for transport.

UN: None

## Section 15 – Regulatory Information

Regulatory Information: Reference to local, national and EU/international regulations.

## Section 16 – Additional Information

Issue time: 2016-1-21

Issue department: Technical department

Date review unit:

Modification record:

### **Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards as described herein; we cannot guarantee that these are the only hazards that exist.