MATERIAL SAFETY DATA SHEET, NYLON

Section 1 | Product and Company Identification

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Material Identification
Product Name: NYLON TYPE 6
Chemical Name: POLYCAPROLACTAM/POLYAMIDE - NYLON 6
CAS Number: 25038-54-4
Product Use: Engineering thermoplastic, for fabrication.

Section 2 | Composition/Information on Ingredients

Section 3 | Hazards Identification

Ingestion: Not a probable route if ingestion.
Skin: Molten Nylon will cause thermal burns.
Eye: Mechanical irritation only.
Inhalation: Stock shapes are not respirable, avoid breathing dust, as fine particles can be inhaled and retained in the lungs.

Section 4 | First Aid Measures

If exposed to fumes from overheating, move to fresh air. Consult a physician if symptoms persist. Wash skin with soap and plenty of water. Flush eyes with water. Consult a physician if symptoms persist.
If molten Nylon contacts skin, cool rapidly with cold water. Do not attempt to peel Nylon from skin. Obtain medical attention to thermal burn.

Chronic effects: Not known
Medical conditions generally aggravated by this material: No data is available which addresses medical conditions that are generally recognized as being aggravated by exposure to this product.
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**Section 5 Fire Fighting Measures**

Flash ignition temperature: NA  
Unusual fire, explosion hazards: None known  
Hazardous combustion products: Smoke and noxious gasses, carbon monoxide, carbon dioxide, and hydrogen cyanide evolved upon burning.  
Special fire fighting instructions: Fire fighters and others exposed to products of combustion should wear full protective clothing including self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use.  
Extinguishing media: Water spray or any class ‘A’ extinguishing agent.

**Section 6 Accidental Release Measures**

Spill or release: Clean up by vacuuming or sweeping to prevent falls.

**Section 7 Handling and Storage**

Practice reasonable care and caution in handling.

**Section 8 Exposure Controls/Personal Protection**

Eye: Safety glasses are recommended to prevent particulate matter from entering eyes while grinding or machining.  
Skin: Protective gloves are required when handling hot polymer. Also, long sleeve cotton shirt and long pants if handling molten polymer.  
Ventilation: Local exhaust at processing equipment to assure that particulate levels are kept at recommended levels.  
Respirator: None under normal processing, if ventilation is adequate.

**Section 9 Physical and Chemical Properties**

Appearance: Stock shape may be rod, plate or tube form.  
Odour: Essentially odourless.  
Melting point: 210-225°C / 410-437°F  
Solubility in water: Insoluble.  
Volatile content %: <1%  
Specific gravity: 1.12-1.14

**Section 10 Stability and Reactivity**

Stability at room temperature: Stable  
Materials to avoid: Strong acids and oxidizing agents.  
Conditions to avoid: Temperatures over 291°C / 555°F May result in thermal decomposition.
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Section 11  Toxicological Information

Chronic toxicity: Nylon type 6 does not appear to possess any toxicological properties.

Medical conditions prone to aggravation by exposure: Thermal decomposition products of nylon have been reported to be irritating to the mucus membranes and respiratory tract.

Carcinogenicity: None known.

Section 12  Ecological Information

Aquatic toxicity: Toxicity is expected to be low based on insolubility of polymer in water.

Section 13  Disposal Considerations

Spill or release: Clean up by vacuuming or wet sweeping to minimize dust exposure.

Waste disposal: Landfill or incineration in compliance with federal, state, and local regulations.

Section 14  Transport Information

Hazard class: NA

Shipping name: NA

Section 15  Regulatory Information

This product contains no known toxic chemicals.

Section 16  Other Information

Prepared by: Steven Cook
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