

**Material Safety Data Sheet**  
**Cast Nylon Products of ZL Engineering Plastics, Inc.**



**1. Product and Company**

**ZL Products:**

ZL® 1100 Type 6 Nylon-Natural  
ZL® 1100 Type 6 Nylon-Black  
ZL® 1100MO Type 6 Nylon-MoS2

**Manufacture:**

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**2. Composition/Information on Ingredients**

Stock shapes manufactured of Cast Polyamide from Caprolactam (Monomer content:<3%), possibly containing stabilizing agents, pigments, fillers, and additives.  
CAS – number: Not required.

**3. Possible Hazards**

None.

**4. First Aid Measures**

General Information: After inhalation of vapors from burning or thermal degradation of the product, get fresh air and warmth. If necessary, call a doctor. In case of loss of consciousness, keep and transport in a stable position on their side. Possible complaints: Irritation of mucous membranes (nose, eyes), coughing, teary eyes. In case of breathing difficulty (strong, sustained coughing): Keep the upper body in a half sitting position and call a doctor.  
Burns caused by molten material require hospital treatment.

**5. Fire Fighting Measures**

Suitable extinguishing agents: Water spray, foam, dry extinguishing agents, carbon dioxide.  
Additional Information: The product melts / ignites when in contact with flame and continues to burn outside of the ignition point. In the event of a fire, carbon dioxide, carbon monoxide and monomers could be released. The development of further fissile or oxidation by-products is dependent on the circumstances. There is a danger of an expansion of the fire due to spontaneous combustion of the vapors. Remnants of the fire and contaminated extinguishing agents should be discarded according to local rules. Necessary Protective Gear: Use breathing protection with independent air circulation during fire fighting.

**6. Measures in case of Accidental Release**

Not applicable.

## 7. Handling and Storage

Handling: Minimize overheating during machining processes or install suitable vacuum or aeration equipment. Minimize inhalation of vapors.

Storage: Protect from acids, alkali solutions or acid/alkali solution producing products and oxidizing agents. Follow the proper guidelines to protect from fire.

Special information: Unlimited storage possible.

## 8. Exposure Limits

Personal protective gear unnecessary. When machining, take into account: Fine dust. MAK: 0.6 mg/m<sup>3</sup> (Germany)

## 9. Physical and Chemical Properties

Appearance Form: Solid as semi-finished (plate, rod, tube) or finished part.

Color: Natural, Black, Blue or Yellow

Odor: Odorless

Change in Physical State

Melting point: 210 – 220°C

Flash point: approx. 400°C

Ignition temperature: approx. 450°C

Density: 1.14 g/cm<sup>3</sup>

## 10. Stability and Reactivity

Thermal Decay: Starts to decompose at 300°C

Dangerous by-products of decay: Carbon monoxide, carbon dioxide, traces of hydrogen cyanide possible, monomer components.

## 11. Toxicological Information

In our experience and according to information available to us, the product is not harmful to health provided it is correctly handled and processed according to the given recommendations.

## 12. Ecological Information

Non-toxic, biologically not degradable and non-soluble solid without known detrimental effects on the environment.

## 13. Disposal Information

Waste code for unused material (per EU-waste catalog): 20 01 06


Waste description: Other plastic

Information for disposal: Sorted and clean material can be recycled or disposed of, according to local regulations, with household waste or in an incinerator.

## 14. Transport Information

Not classified as hazardous under transport regulation.

## 15. Rules

 **WARNING:** This product can expose you to chemicals including **Carbon Black** (CAS 1333-86-4), which is known to the State of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## 16. Special Information

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.