**Section I: IDENTIFICATION**

**Product Identifier:** **NYCOA 2047**

**Chemical Family: Polyamide Resin**

**Recommended use of the chemical and restriction on use**:

Recommended use: Polymer for industrial processing only

Suitable for use in industrial sector: Polymer industry

The ‘Recommended use’ identified for this product is provided solely to comply with a US Federal requirement and is not part of the seller’s published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty express or implied by incorporation into or reference in the Seller’s sales agreement.

**Details of the supplier of the safety data sheet**:

Company:

|  |  |
| --- | --- |
| Nylon Corporation of America | Ph: 603 627 5150 |
| 333 Sundial Avenue | Fax: 603 627 5154 |
| Manchester, NH 03103  Emergency number:  Nylon Corporation of America | Ph 603 627 5150 ext 352 |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

###### Section II - HAZARDOUS IDENTIFICATION

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200**

No need for classification according to GHS criteria for this product

**Hazards not otherwise classified**:

No specific dangers known, if the regulations/notes for storage and handling are considered.

There is NO chemical present in this product at a concentration of 0.1% or more that has been classified as a carcinogen by IARC, NTP or OSHA.

NYCOA Nylons are thermoplastic resins. In the solid state, they are not hazardous.

During processing when converted to the molten state, normal precautions for the handling of hot, sticky, fluid melts should be observed.

**Label elements:**

The product does not require a hazard warning label in accordance with GHS criteria:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

###### Section III – COMPOSITION/INFORMATION ON INGREDIENTS

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200**

**CAS Number** **Content (W/W)** **Chemical Name**

51995-62-1 =>90% - =<100% Polycaprolactam/Polyamide 6

105-60-2 =< 5% Caprolactam

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

###### Section IV – FIRST-AID MEASURES

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**General advice:**

Avoid contact with skin, eyes and clothing

Remove contaminated clothing

**If Ingested**:

Low toxicity, not a probable route of exposure. If ingested seek medical attention.

**If Inhaled**:

Pellets not respirable. Vapors evolved during normal processing may be irritating to the respiratory tract if adequate ventilation is not provided. Move the affected individual to fresh air and assist in breathing if necessary. Seek medical attention.

**If on skin:**

Burns caused by molten material require hospital treatment. Flush with cool water immediately.

Dermatitis may result from repeated skin contact. Flush with cool water. Seek medical attention if a severe reaction occurs.

**If in eyes**:

Continuously rinse eyes immediately for at least 20 minutes. If irritation develops, seek medical attention.

**Important symptoms and effects, both acute and delayed**

**Symptoms**: No significant reaction of the human body to the product is known.

**Hazards**: No hazard is expected under intended use and appropriate handling

**Indication of any immediate medical attention and special treatment needed**:

Treat symptomatically

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

###### Section V - FIRE –FIGHTING MEASURES

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Extinguishing Media: Water, Foam, Carbon Dioxide, Dry Chemical.

Unusual Fire and Explosion Hazards: Smoke and noxious gases (carbon monoxide, hydrocarbons, ammonia, hydrogen cyanide) evolved upon burning.

Special Fire Fighting Procedures: Self-contained breathing apparatus in any closed space.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

###### Section VI – ACCIDENTAL RELEASE MEASURES

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

No special personal precautions or emergency procedures are necessary.

Steps to be Taken in Care Material is

Released or Spilled: Sweep up and discard.

Waste Disposal Method: Landfill in accordance with local, state and federal laws.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section VII – HANDLING AND STORAGE**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Precautions to be taken in Handling: Practice reasonable care and caution in handling NYCOA Nylon. Avoid breathing dust if generated.

Precautions to be taken in Storing: Suitable materials for containers: Low density polyethylene (LDPE). Keep container sealed to avoid contact with moisture.

Other Precautions:

Inhalation (Breathing) If exposed to excessive fumes from overheating or combustion, move to fresh air.

Skin Contact: If molten polymer comes in contact with exposed skin quench rapidly in cold water. Obtain medical attention to remove any polymer attached to skin and for burns.

DOT CATEGORY: Not Restricted

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

###### Section VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Components with occupational exposure limits**:

* Caprolactam - ACGIH TLV TWA value 5 mg/m3 inhalable dust and vapor

Respiratory Protection: None required with sufficient ventilation.

Ventilation: Good room ventilation.

Protective Gloves: Recommended if contact with molten material or newly molded polymer parts is required.

Eye Protection: Safety glasses for good work practices

Other Protective Equipment: Clean work clothing.

General safety and hygiene measures: Avoid inhalation of dust. Wear a NIOSH-certified (or equivalent) particulate respirator if ventilation is not adequate.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section IX – PHYSICAL AND CHEMICAL PROPERTIES**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Form: Pellets Odor: Odorless

Melting Point: 391 F (199 C) Boiling Point: N.A.

Specific Gravity: 1.12 Vapor Density (Air=1): N.A.

Percent Volatiles: Nil Evaporation Rate: N.A.

Flammability: Not self-igniting Auto-ignition temp: >750 F (400 C)

Lower explosive limit: Not determined Upper explosive limit: Not determined

Flashpoint: Not Applicable

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

###### Section X - STABILITY AND REACTIVITY

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Stability: Stable.

Incompatibility (Materials to Avoid): None known.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Temperatures over 555 F (290 C) may result in thermal decomposition.

Hazardous decomposition products: These include Ammonium hydroxide, carbon monoxide, carbon dioxide, caprolactam, hydrogen cyanide, nitriles.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SECTION XI – TOXICOLOGICAL INFORMATION**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Primary routes of exposure**

Ingestion and inhalation are routes of exposure for solids and liquids.

Inhalation and eye contact are routes of exposure for gases.

Skin contact may be a route of exposure for liquefied gases.

**Acute Toxicity/Effects**

Acute toxicity – The resin in pellet form presents a low hazard. Contact with molten material may cause thermal burns.

Oral – Acute Toxicity Estimate (ATE) > 1500 mg/kg

Inhalation - The properties of the product preclude inhalation.

Dermal – Acute toxicity estimate (ATE) >5000 mg/kg

Irritation/corrosion – Contact with the skin, respiratory tract or eyes may cause irritation

Sensitization – Based on our experience and the information available, no adverse health effects are expected provided the material is handled as recommended with the appropriate precautions for designated uses.

*Information on caprolactam – May cause slight irritation to the skin and eyes*

**Chronic Toxicity/Effects**

Genetic toxicity - Based on our experience and the information available, no adverse health effects are expected provided the material is handled as recommended with the appropriate precautions for designated uses.

Carcinogenicity - Based on our experience and the information available, no adverse health effects are expected provided the material is handled as recommended with the appropriate precautions for designated uses.

Other information - Based on our experience and the information available, no adverse health effects are expected provided the material is handled as recommended with the appropriate precautions for designated uses.

**Symptoms of Exposure**

No significant reaction by the human body to the product is known.

*Information on caprolactam – After repeated exposure the most significant effect is local irritation. Animal studies have shown damage to the upper respiratory tract after repeated inhalation.*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section XII – ECOLOGICAL INFORMATION**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Ecotoxicity: This product is not expected to produce significant ecotoxicity upon exposure to aquatic organisms or systems.

Persistence and Degradability: In pellet form, product is inert and not biodegradable

Bioacumulative Potential: Unlikely

Mobility in Soil: NA

Results of PBT and vPvB assessment: NA

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section XIII – DISPOSAL CONSIDERATIONS**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dispose in accordance with all applicable regulations

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section XIV – TRANSPORT INFORMATION**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ADR: Not regulated as dangerous goods

IMDG: Not regulated as dangerous goods

IATA: Not regulated as dangerous goods

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section XV – REGULATORY INFORMATION**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Federal Regulations**

**Registration status:**

Chemical TSCA, US released/listed

**EPCRA 311/312:** Not hazardous

**State Regulations:**

**State RTK CAS Number Chemical name**

MA, NJ, PA 105-60-2 Caprolactam

NFPA Hazard codes

Health: 1 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 1 Flammability: 1 Physical hazard: 0

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section XVI – OTHER INFORMATION**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Safety Data Sheet prepared by NYCOA Product Stewardship team on 10/14/14

This Safety Data Sheet (SDS) is presented in good faith, based on currently available information, and is accurate to the best of our knowledge. It does not replace the precautions, directions and information contained on the product label. The user is solely responsible for: 1) following all instructions, recommendations and directions; 2} deciding whether this product or the information about this product is suitable for its use; 3) providing this SDS and all other information about this product to any subsequent uses; 4) meeting all applicable health and safety standards and regulations; and 5) ensuring that no patent infringement occurs.

NO LIABILITY IS ASSUMED AND NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, ARE MADE WITH RESPECT TO THE INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS.