Nanopolymer	**Nanopolymer Composites Corporation** Date Prepared: September 14, 2007	Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **NE1063**

Manufacturer Information: Nanopolymer Composites Corporation
No. 29, Sec. 2 Huandung Rd, Tainan Science Park,
Tainan County, Taiwan 741 R.O.C.
Phone Numbers: +886-6-5100606 8:00--17:00 (+8:00)

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS NUMBER	WEIGHT %
Nylon 6	25038-54-4	90+
Proprietary Ingredient		10+
Caprolactam	105-60-2	<1.0

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Naturally-colored (clear to white) plastic pellets with no significant odor.

Resin pellets are not considered hazardous at ambient conditions.

Exposure to fire will release irritating, toxic and/or flammable fumes and vapors.

POTENTIAL HEALTH HAZARDS

SKIN: Pellets in contact with skin may cause mechanical irritation. Hot or molten polymer can burn the skin.

EYES: Contact with powders or dusts may cause mechanical irritation. Thermal processing fumes/vapors may irritate the eyes.

INHALATION: Thermal processing fumes/vapors or dusts may irritate the mucous membranes of the nose and throat.

INGESTION: Ingestion is not a likely route of exposure. Ingestion of product may cause gastrointestinal discomfort.

DELAYED EFFECTS: There are no known chronic effects associated with this material.

Ingredients found on one of the OSHA/WHMIS designated carcinogen lists are provided below.

INGREDIENT NAME	NTP STATUS	IARC STATUS	OSHA LIST	ACGIH STATUS
None	None	None	None	None

4. FIRST AID MEASURES

SKIN: For irritation, flush the skin with cool running water.
Wash the affected area with mild soap and water.
Obtain medical attention if irritation persists.
If hot or molten polymer burns the skin, immerse the burned area in cold running water and obtain medical attention immediately.

EYES: Flush eyes with running water. If irritation develops or persists, obtain medical attention.

INHALATION: Remove person to fresh air. If irritation develops or persists, obtain medical attention.

INGESTION: Ingestion is not a likely route of exposure. If product is ingested, seek medical attention.

ADVICE TO PHYSICIAN: There are no specific recommendations for treatment of effects associated with exposure to these products. Treatments base on clinical findings.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: Not determined

FLASH POINT METHOD: Not applicable

AUTOIGNITION TEMPERATURE: Not determined

UPPER FLAME LIMIT (volume % in air): Not applicable

LOWER FLAME LIMIT (volume % in air): Not applicable

FLAME PROPAGATION RATE (solids): Not applicable.

OSHA FLAMMABILITY CLASS: Not applicable; solid material.

EXTINGUISHING MEDIA:

Use any standard agent (water, foam, dry chemical, carbon dioxide).

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None known.

SPECIAL FIRE FIGHTING INSTRUCTIONS/PRECAUTIONS:

Wear self-contained, positive-pressure breathing apparatus (full face-piece type) and full protective clothing

6.ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE (Always wear recommended personal protective equipment): Sweep or vacuum material and place in container for re-use or disposal.

Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.

7. HANDLING AND STORAGE

NORMAL HANDLING (Always wear recommended personal protective equipment):

Avoid processing material above recommended thermal processing temperatures. Read product Technical Data Sheet before use, or contact a technical service representative for specific advice.

Avoid breathing thermal processing fumes and vapors. Avoid inhalation and/or skin contact with product dusts or pellets. Avoid dust or pellets in contact with the eyes. Consider the use of local exhaust ventilation at all processing emission points.

Wash thoroughly after handling.

STORAGE RECOMMENDATIONS:

To maintain product quality store product in a cool, dry area.

Keep in a tightly sealed container.

Store food grade materials in areas free of pests and hazardous materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection Requirements: Safety glasses recommended.

Skin Protection Requirements: None required but fabric gloves are recommended when handling molten material.

Ventilation Requirements: Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits. Local mechanical exhaust ventilation should be used at sources of air contamination, such as open process equipment, or during purging operations, to capture gases and fumes that may be emitted. Standard reference sources regarding industrial ventilation (ie. ACGIH Industrial Ventilation) should be consulted for guidance about adequate ventilation.

Respirator Requirements: NIOSH / MSHA – approved dust respirator recommended if the airborne dust concentration is near or exceeds the nuisance dust exposure requirements.

Additional Protective Measures: The greatest potential for injury occurs when working with molten polymeric resins, such as during a purge of a molding machine, extruder and the like. During this type of operation it is essential that all workers in the immediate area wear eye protection and skin protection (sleeves, gloves, etc.) as protection from thermal burns. Purgings should be collected as small flat thin shapes or thin strands to allow for rapid cooling. Precautions should be taken against auto-ignition of hot, thick masses of the plastic. Quench with water. Grinder dust is an exposure hazard.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear to white or off-white pellets.

PHYSICAL STATE: Solid

ODOR: Possibly a slight organic odor

SPECIFIC GRAVITY (water = 1.0): 1.14

SOLUBILITY IN WATER (weight %): Insoluble.

pH: Not applicable

BOILING POINT: Not applicable

MELTING POINT: 220-225°C (374-437°F)

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

EVAPORATION RATE: Not applicable

COMPARED TO: Not applicable

% VOLATILES: Not determined

FLASH POINT: Not determined for solid product.

(Flash point method and additional flammability data are found in Section 5.)

10. STABILITY AND REACTIVITY

STABILITY:

Product is stable. Avoid exposure to open flame or temperatures exceeding optimum recommended processing temperatures.

Avoid prolonged exposure to processing temperatures.

Consult technical service personnel for recommended processing conditions.

INCOMPATIBILITIES:

Strong mineral acids.

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal breakdown products may include a complex mixture of compounds, including but not limited to carbon monoxide, ammonia, aliphatic amines, amides, ketones, nitriles, and hydrogen cyanide, which may be flammable, toxic and/or irritating.

The specific materials generated will vary depending on the additives and colorants used, specific temperature, time of exposure and other immediate environmental factors.

HAZARDOUS POLYMERIZATION:

Will not occur.

11. TOXICOLOGICAL INFORMATION

OTHER DATA:

Caprolactam: 13-Week Inhalation Toxicity Study of Caprolactam in the Rat via Whole Body Exposures - The study involved daily six-hour dust exposures, five days per week for 13 weeks at levels of 0 (control), 23, 66 and 245 mg/m³.

Signs of mild irritation were observed at all levels. However, Histopathological results indicate irritation effects at the 66 and 245 mg/m³ levels only. There were no neurotoxic effects or systemic signs of toxicity.

There were no effects on the lower respiratory system. The NOEL for non-irritant effects was 245 mg/m³.

Skin Irritation Study in the Rabbit (24-hour occluded application) - Negligible to mild irritation.

Caprolactam	LD50 (oral-rat): 930-2500 mg/kg	LC50 (inh-rat, 4hr): 8160 mg/m³

12. ECOLOGICAL INFORMATION

No ecological information available

13. WASTE DISPOSAL CONSIDERATIONS

Waste Disposal Method: Material may be incinerated or landfilled in compliance with federal, state, and local environmental control regulations.

14. TRANSPORTATION INFORMATION

Technical Shipping Name: Nylon 6 Resin

Freight Class Bulk: Plastic Materials, Pellets

Freight Class Package: Plastic Materials, O/T Exp., Pellets

Product Label: Nylon 6

DOT (Domestic Surface)

Hazard Class or Division: Non-Regulated

IMO / IMDG Code (Ocean)

Hazard Class Division Number: Non-Regulated

ICAO / IATA (AIR)

Hazard Class Division Number: Non-Regulated

15. REGULATIORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)

TSCA INVENTORY STATUS: All components are listed on the TSCA Inventory or are exempt under PMN regulations.

OTHER TSCA ISSUES: None

U.S. FOOD AND DRUG ADMINISTRATION (FDA)

The products identified in Section 1 and designated with a "P" (e.g., B135WP) are FDA compliant grades. For specific information on the applicable U.S. FDA food additive regulations covering these products, contact the Product Steward (see Section 16).

SARA TITLE III/CERCLA

SARA/CERCLA HAZARDOUS SUBSTANCES:

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

INGREDIENT NAME	SARA/CERCLA RQ (lb)	SARA EHS TPQ (lb)

None	None	None

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.

16. OTHER INFORMATION

CURRENT ISSUE DATE: September 14, 2007
PREVIOUS ISSUE DATE: September 14, 2007
PREPARED BY: Hsiang-In Tang
APPROVED BY: Philip Chen

CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:

Created MSDS.

NATIONAL FIRE PROTECTION AGENCY (NFPA®) AND NATIONAL PAINT AND COATINGS ASSOCIATION (NPCA®) HAZARD RATING CLASSIFICATION:

	NFPA®	**HMIS®**
Health	0	0
Fire	0	0
Reactivity	0	0

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