MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

Product Name(s): Atron 602, Atron 602 IM, Atron 602 ST, Atron 604, Atron 604A, Atron 604B, Atron 605 FC

Date MSDS Prepared: February 3, 2003 **Preparer:** J Mitzel Rev Note: Added additional grades

Common Chemical Name: Polycaprolactam; Polyamide 6

2. Hazardous Ingredients/Identity Information

Ingredient	CAS Number	WEIGHT %
Nylon 6	25038-54-4	75-100

PEL/TLV NOT ESTABLISHED

None of the materials, designated as Toxic and Hazardous Substances by the U.S. Department of Labor/OSHA (29 CFR 1910) are used to produce the Atron products listed above. In addition, these hazardous chemicals are not anticipated to be by-products in our production process.

This is a polymeric material. All components are wetted by the polymer and present no likelihood of exposure Under normal conditions of handling except where noted.

3. Hazards Identification

EMERGENCY OVERVIEW:
Uncolored nylon plastic pellets with no significant odor.
Resin Pellets are not considered hazardous at ambient temperatures.
Exposure to fire will release irritating, toxic and/or flammable fumes and vapors.

POTENTIAL HEALTH HAZARDS:

SKIN: Pellets or dusts in contact with skin may cause 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 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. Base treatments 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: Non 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.

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 the manufacturer's technical department 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.

8. Exposure Controls/Personal Protection

Engineering Controls:
Good manufacturing practice and good industrial hygiene practice recommend the use of local exhaust ventilation at thermal processing emission points. Processors should evaluate the need for local exhaust ventilation at each processing emission point. These considerations should include secondary operations (cutting, regrinding, chopping, etc.) that follow thermal processing.

Personal Protective Equipment:

SKIN PROTECTION:
Wear gloves when handling. Use arm protection to protect against thermal burns.

EYE PROTECTION:
Wear safety glasses with sideshields as a minimum. Use a faceshield when processing molten material.

RESPIRATORY PROTECTION:
If dusty conditions exist, use a mechanical filter respirator approved by NIOSH. For exposure to fumes and vapors in excess of permissible exposure limits, use an organic vapor cartridge respirator approved by NIOSH.

ADDITIONAL RECOMMENDATIONS:
Use additional personal protective equipment consistent with the user's plant conditions and requirements. An eye wash fountain or other source of running water is recommended for the work area.

EXPOSURE GUIDELINES

INGREDIENT		ACGIH TLV	OSHA PEL*	OTHER LIMT
Caprolactam	Dust:	1 mg/cubic m TWA; 3 mg/ cubic m STEL	1 mg/cub. M TWA; 3 mg/ cubic m STEL	None
	Vapor:	5 ppm, 23 mg/cubic m TWA; 10 ppm, 46 mg/cubic m STEL	5 ppm, 20 mg/cubic m TWA; 10 ppm, 40 mg/cubic m STEL	
Product (Dusts) particulates not otherwise classified·		10mg/cubic m total dust 3 mg/cubic m respirable dust	15mg/cubic m total dust 5 mg/cubic m respirable dust	

*PEL values represent limits established by the 1989 Air Contaminants Rule (29 CFR 1910.1000, Subpart Z, Table Z-1-A) which was subsequently revoked on June 30, 1993. Several states continue to enforce Table Z-1-A limits.

Consult local authorities for acceptable state or provincial values.

9. Physical/Chemical Characteristics

Appearance And Odor:	Uncolored Plastic Pellets, possibly a slight organic odor.
Physical State:	Solid
Specific Gravity:	1.05 – 1.20
Solubility In Water:	Insoluble
PH:	Not applicable
Boiling Point:	Not applicable
Melting Point:	210 - 225 degrees C
Vapor Pressure:	Not applicable
Vapor Density:	Not applicable
Evaporation Rate:	Not applicable
% Volatiles	Not determined
Flash Point:	Not determined, See additional flammability data in Section 5.

10. Stability and Reactivity Data

Normally Stable? (Conditions to Avoid)
Product is stable. Avoid exposure to open flames or temperatures exceeding recommended processing temperatures
Avoid prolonged exposure to processing temperatures.
Consult manufacturer's technical department for recommended processing conditions.

Incompatibilities:
Strong mineral acids.

Hazardous Polymerization:
Will not occur

Hazardous Decomposition :
Decomposition from exposure to abnormally high processing temperatures and/or abnormally long periods may include hydrogen cyanide, CO, and ammonia

11. Toxicological Information

Immediate (Acute) Effects:
None known, data not available.

Delayed (Subchronic and Chronic) Effects:
None known, data not available.

12. Ecological Information

No ecotoxicological information is available for the products.
These products are not considered degradable or toxic in terms of their physical impact.
Pellets left at large (spills) in the general environment may be ingested by animals.
Material is expected to have low aquatic toxicity because of its insolubility in water.

13. Disposal Considerations

RCRA
Is the unused product a RCRA hazardous waste if discarded? No

Other disposal considerations:
Preferred methods: Recycle, incinerate and landfill. Disposal must comply with applicable federal, state/provincial and local disposal laws and regulations.

14. Transport Information

US DOT (Department of Transportation): Not regulated
Canadian TDG (Transportation of Dangerous Goods): Not regulated

15. Regulatory Information

TSCA Inventory Status:
All components are listed on the TSCA Inventory or are exempt under PMN regulations

Other TSCA Issues: None

SARA Title III/CERCLA Hazardous Substances: None

Section 311 Hazard Class: Immediate

Section 313 Chemicals: None

State Right-to-Know Ingredients: None

WHMIS Classification (Canada): Not Controlled