



1 PRODUCT AND COMPANY IDENTIFICATION

Distributed By:
One Stroke Inks
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EMERGENCY PHONE NUMBERS:
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Table with 3 columns: Information Telephone Numbers, Phone Number, Available Hrs. Row 1: One Stroke Inks, (502) 366 - 1070, Mon - Fri 8:00am - 5:00pm EST

Product Name: ELT Zip Fashion Powder

Chemical Family: Polyamide

Chemical Formula

Chemical Name: See Composition

EPA Reg Num

Product Use: Thermoplastic Adhesive

2 COMPOSITION / INFORMATION ON INGREDIENTS

Table with 4 columns: Ingredient Name, CAS RegistryNumber, Typical Wt. %, OSHA. Rows: Polyamide copolymer (Proprietary, > 95, N), Caprolactam (105-60-2, < 4, Y)

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200)

The components of this product are all on the TSCA Inventory list.

3 HAZARDS IDENTIFICATION

Emergency Overview

White odorless powder

WARNING!

- MELT PROCESSING RELEASES CAPROLACTAM WHICH:
MAY CAUSE EYE AND SKIN IRRITATION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.
MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTIONS

Potential Health Effects

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. As finished products, Platamids(R) are synthetic, high molecular weight polyamide copolymers. Many Platamid(R) copolyamides are based on caprolactam, lauryllactam and other copolyamide forming monomers. As such, this Platamid(R) material contains some residual caprolactam dissolved in the high molecular weight copolyamide. Under normal processing conditions, this product will release fume or vapor. Components of these releases may vary with processing times and temperatures; however, the majority of this released material is expected to be caprolactam and water. During melt processing of this product, 10 to 60% of the residual caprolactam will be released as vapor; the



amount will depend on the temperature of the melt processing and the molten surface area exposed. Based on single exposure animal tests, caprolactam is considered to be slightly toxic if swallowed, inhaled or absorbed through skin and moderately irritating to eyes. Direct contact can cause skin irritation. High vapor concentrations are irritating to the eyes and respiratory tract, and may result in central nervous system (CNS) effects such as headache, dizziness, nausea, drowsiness and, in severe exposures, convulsions and loss of consciousness. Repeated exposure may cause an allergic skin or respiratory reaction that could lead to bronchial asthma and nasal inflammation. Medical conditions that may be aggravated by exposure to this material include lung disease or limited respiratory capacity.

**4 FIRST AID MEASURES**

IN CASE OF CONTACT, flush the area with plenty of water. Remove material from clothing. Wash clothing before reuse.

In case of contact with molten or hot polymer, treat for thermal effects. If in eyes, immediately flush with plenty of water for at least 15 minutes. Do not remove contact lenses, if worn. Get medical attention immediately, preferably from an ophthalmologist. If on skin, immediately flush the area with plenty of water for at least 15 minutes. Remove any clothing, jewelry and debris from the burned area leaving blisters intact. Do not remove residual polymer. Cover wounded area with a gauze dressing moistened with cool water. Get medical attention immediately.

IF SWALLOWED, induce vomiting immediately as directed by medical personnel. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IF INHALED, remove to fresh air. If breathing is difficult, get medical attention.

**5 FIRE FIGHTING MEASURES**

**Fire and Explosive Properties**

Auto-Ignition Temperature	NE	
Flash Point	NE	Flash Point Method
Flammable Limits- Upper	NA	
Lower	NA	

**Extinguishing Media**

Use water spray, carbon dioxide, foam or dry chemical.

**Fire Fighting Instructions**

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

**Fire and Explosion Hazards**

When burned, the following hazardous products of combustion can occur: Oxides of carbon and nitrogen

**6 ACCIDENTAL RELEASE MEASURES**

**In Case of Spill or Leak**

Stop the leak, if possible. Ventilate the space involved. Absorb, sweep up, place in container for disposal. Reduce dust spreading with a water spray. Shut off or remove all ignition sources. Prevent waterway contamination. Construct a dike to prevent spreading. Protect workers with water spray. Collect run-off water and transfer to drums or tanks for later disposal. Avoid creating a dusty atmosphere. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.





## 6 ACCIDENTAL RELEASE MEASURES

Clean up procedures: Transfer to containers, preparatory for later disposal. Avoid generation of dusts. Place in non-sparking containers for recovery or disposal. Remove from spill location. Flush area with water spray, collect rinsate.

## 7 HANDLING AND STORAGE

### Handling

Avoid contact with eyes. Avoid prolonged contact with eyes, skin and clothing. Wash thoroughly after handling. Do not taste or swallow. Avoid breathing processing fumes or vapors. Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin and clothing. Process using adequate ventilation. Keep container tightly closed. Process using adequate ventilation. Avoid breathing dust and processing vapors.

### Storage

Store in a cool, dry place. This material is not hazardous under normal storage conditions; however, material should be stored in closed containers, in a secure area to prevent container damage and subsequent spillage.

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Engineering Controls

Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

### Eye / Face Protection

Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment available.

### Skin Protection

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse contaminated skin promptly. Wash contaminated clothing and clean protective equipment before reuse. Wash skin thoroughly after handling.

### Respiratory Protection

Avoid breathing dust. Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

### Other Exposure Limits - Ingredients

\*OSHA and ACGIH have not established specific exposure limits for this material. However, OSHA and ACGIH have established limits for nuisance dusts or Particles Not Otherwise Specified (PNOS) which are the least stringent exposure limits applicable to dusts. The OSHA PEL/TWA for nuisance dusts is 15 mg/m<sup>3</sup> total dust (TD), and 5 mg/m<sup>3</sup> respirable dust (RD). The ACGIH TLV/TWA for Particles (insoluble or poorly soluble) Not Otherwise Specified (PNOS) is 10 mg/m<sup>3</sup> inhalable particulate and 3 mg/m<sup>3</sup> respirable particulate.

### Airborne Exposure Guidelines for Ingredients

Exposure Limit

Value

#### Caprolactam

**Caprolactam**

ACGIH TWA

-Inhalable fraction, vapor and aerosol 5 mg/m<sup>3</sup>

-Only those components with exposure limits are printed in this section.

-Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.

-ACGIH Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic reactions.

-WEEL-AIHA Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic skin reactions.

**9 PHYSICAL AND CHEMICAL PROPERTIES**

Appearance/Odor	White odorless powder
pH	
Specific Gravity	1.10
Vapor Pressure	NE
Vapor Density	NE
Melting Point	135 deg C
Freezing Point	
Boiling Point	NE
Solubility In Water	Negligible
Evaporation Rate	NE
Percent Volatile	NE

**10 STABILITY AND REACTIVITY****Stability**

This material is chemically stable under normal and anticipated storage and handling conditions.

**Hazardous Polymerization**

Does not occur.

**Incompatibility**

Contact with acids and strong oxidizing agents may cause a low energy release.

**Hazardous Decomposition Products**

Oxides of carbon and nitrogen.

**11 TOXICOLOGICAL INFORMATION****Toxicological Information**

No toxicity studies have been conducted on polyamide copolymers, and no information on this or a similar material was found in a search of the scientific literature. However, data on unreacted caprolactam, which is anticipated to be present at <5%, are summarized below.

**Caprolactam**

Single exposure (acute) studies indicate that this material is slightly toxic if swallowed (rat LD50 1,150-2,500 mg/kg), absorbed through skin (rabbit LD50 1,410-3,375 mg/kg) or inhaled (rat 4-hr LC50 176 ppm, dust), moderately irritating to rabbit eyes and non-irritating to slightly irritating to rabbit skin. Allergic skin reactions (sensitization) have been reported in humans. Skin sensitization studies in guinea pigs have produced both positive and negative results. Effects following human exposure to vapor include severe nose, throat and eye discomfort, a bitter taste, nervousness, nosebleeds, inflammation of the membranes of the respiratory tract, and



**11 TOXICOLOGICAL INFORMATION**

dry and splitting nose and lips. An incident involving seizures, nausea, vomiting, low-grade fever, and dermatitis of the hands and feet has been attributed to occupational exposure. Studies of workers occupationally exposed showed no effects on lung function or blood parameters.

Effects associated with acute toxicity in animals were eye and respiratory tract irritation, signs of apprehension, and labored breathing followed by tremors and violent convulsions. Although recovery was complete if the animals survived, death was usually attributed to respiratory arrest. Repeated inhalation exposure to dust identified the nervous system, reproductive system, respiratory system and kidney as target organs in rats. Repeated dietary administration produced microscopic changes to the kidneys in rats while no effects were observed in dogs. Long-term dietary administration produced no tumors in rats and mice. The International Agency for Research on Cancer (IARC) has determined that this material is probably not carcinogenic to humans (Group 2A). Reduced fertility and deaths of embryos were reported in rats after repeated inhalation exposure. No effects on the ability of male and female rats to reproduce were observed following dietary administration for 3 successive generations. No birth defects were observed in the offspring of rats or rabbits exposed orally during pregnancy. Generally, no genetic changes were observed in tests using bacteria or animal cells, although positive responses were reported in assays with fruit flies, yeast and human cells.

**12 ECOLOGICAL INFORMATION****Ecotoxicological Information**

No ecological effect studies have been conducted on polyamide copolymers, and no information on this or a similar material was found in a search of the scientific literature. However, data on unreacted caprolactam, which is anticipated to be present at <5%, are summarized below.

**Caprolactam**

This material is practically non-toxic to *Daphnia magna* (48-hr LC50 820 mg/l), bluegill sunfish (120-hr LC50 880 mg/l), channel catfish (96-hr LC50 1000 mg/l) and fathead minnow (96-hr LC50 1400 mg/l). The 21-day EC50 for *Daphnia magna* in relation to survival, growth and reproduction was >320.5 mg/l.

**Chemical Fate Information**

No ecological effect studies have been conducted on polyamide copolymers, and no information on this or a similar material was found in a search of the scientific literature. However, data on unreacted caprolactam, which is anticipated to be present at <5%, are summarized below.

**Caprolactam**

This material is expected to be biodegradable in most aerobic systems. The log Pow is -0.19.

**13 DISPOSAL CONSIDERATIONS****Waste Disposal**

Recover, reclaim or recycle when practical. Dispose of in an approved landfill if allowed locally. Comply with federal, state, and local regulations. Dispose of in a permitted waste management facility if incineration or landfill is not practical.

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.



**14 TRANSPORT INFORMATION**

DOT Name Not Regulated  
DOT Technical Name  
DOT Hazard Class  
UN Number  
DOT Packing Group PG  
RQ

**15 REGULATORY INFORMATION**

**Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370)**

Immediate (Acute) Health Y Fire N  
Delayed (Chronic) Health N Reactive N  
Sudden Release of Pressure N

The components of this product are all on the TSCA Inventory list.

**Ingredient Related Regulatory Information:**

**SARA Reportable Quantities**

	CERCLA RQ	SARA TPQ
Caprolactam	NE	
Polyamide copolymer	NE	

**Massachusetts Right to Know**

This product does contain the following chemical(s), as indicated below, currently on the Massachusetts Right to Know Substance List.

Caprolactam

**New Jersey Right to Know**

This product does contain the following chemical(s), as indicated below, currently on the New Jersey Right-to-Know Substances List.

Caprolactam

**Pennsylvania Right to Know**

This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Hazardous Substance List.

Caprolactam

**16 OTHER INFORMATION**

**Revision Information**

Revision Date 11 OCT 2004 Revision Number 3  
Supersedes Revision Dated 26-SEP-2001

**Revision Summary**

ATOFINA Chemicals, Inc. has changed its name to Arkema Inc.

**Key**

NE= Not Established NA= Not Applicable (R) = Registered Trademark



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