



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont
Material Safety Data Sheet

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"ELVAMIDE" NYLON MULTIPOLYMER RESINS IN MID001
MID001 Revised 28-MAR-2003

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"ELVAMIDE" is a registered trademark of DuPont.

Tradenames and Synonyms

"ELVAMIDE" 8023R,
"ELVAMIDE" 8051,
"ELVAMIDE" 8052,
"ELVAMIDE" 8061, 8063,
"ELVAMIDE" 8063,
"ELVAMIDE" 8063S,

Company Identification

MANUFACTURER/DISTRIBUTOR
DuPont Engineering Polymers
1007 Market Street
Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-(800)-441-7515
Transport Emergency : 1-(800)-424-9300
Medical Emergency : 1-(800)-441-3637

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
NYLON MULTIPOLYMER RESIN		>95
CAPROLACTAM MONOMER	105-60-2	<5

Components (Remarks)

Material is not known to contain Toxic Chemicals under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

HAZARDS IDENTIFICATION

Potential Health Effects

ADDITIONAL HEALTH EFFECTS

Before using "ELVAMIDE", read the bulletin "'Elvamide' Product and Properties Guide"

ACUTE OR IMMEDIATE EFFECTS: ROUTES OF ENTRY AND SYMPTOMS

INGESTION No data are available. Ingestion is not a probable route of exposure. Based on similarity to other polymers, the products listed on this MSDS are predicted to have low oral toxicity.

SKIN No data available.

EYE No data available.

CAPROLACTAM

Human experience or case reports have identified the following potential effects from overexposure by inhalation: Irritation of the nose and throat with sneezing, sore throat or runny nose. Irritation of the digestive tract with stomach pain, heartburn, nausea, vomiting or diarrhea; however there may be no symptoms at all. Liver abnormalities. Central nervous system depression with dizziness, confusion, incoordination, drowsiness or unconsciousness. Repeated and/or prolonged exposure may cause: An asthma-like reaction with shortness of breath; wheezing or cough, which may occur after re-exposure to very low levels. Liver abnormalities. Cardiovascular effects. Abnormal blood test results, especially altered hormone levels.

Human experience or case reports have identified the following potential effects from overexposure by skin contact: Irritation with itching, burning, redness, swelling or rash. Dermatitis with itching or rash. Skin permeation may occur in amounts capable of producing the effects of systemic toxicity.

Eye contact may cause irritation with tearing, pain or blurred vision.

Increased susceptibility to the effects of this material may be observed in persons with pre-existing disease of the: central nervous system, skin, lungs.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

First Aid

INHALATION

No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary. If exposed to fumes from overheating or combustion, move to fresh air. Consult a physician if symptoms persist.

SKIN CONTACT

The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable. If molten polymer gets on skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical treatment for thermal burn.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION

No specific intervention is indicated as compound is not likely to be hazardous by ingestion.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point : Not Applicable

Fire and Explosion Hazards:

Like most organic materials in powder form, dust generated from this product may form a flammable dust-air mixture. Potential for a dust explosion may exist. Minimize the generation and accumulation of dust. Keep away from sources of ignition.

Combustible.

Extinguishing Media

Water, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment.

No special instructions.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Clean Up

Spilled material is a slipping hazard.

Sweep up to avoid slipping hazard.

HANDLING AND STORAGE

Handling (Personnel)

See FIRST AID and PERSONAL PROTECTIVE EQUIPMENT SECTIONS.

Storage

Store in a cool, dry place. Keep containers tightly closed to prevent moisture absorption and contamination.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

VENTILATION When hot processing this material, use local and/or general exhaust ventilation to control the concentration of vapors and fumes below exposure limits.

In cutting or grinding operations with this material, use local exhaust to control the concentration of dust below exposure limits.

Personal Protective Equipment

EYE/FACE PROTECTION

Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye and face contact due to splashing or spraying of molten material.

RESPIRATORS

A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge with a dust/mist filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

(EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

PROTECTIVE CLOTHING

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

Exposure Guidelines

Exposure Limits

"ELVAMIDE" NYLON MULTIPOLYMER RESINS IN MID001

PEL (OSHA) : Particulates (Not Otherwise Regulated)
15 mg/m³, 8 Hr. TWA, total dust
5 mg/m³, 8 Hr. TWA, respirable dust

Other Applicable Exposure Limits

CAPROLACTAM MONOMER

PEL (OSHA) : None Established
TLV (ACGIH) : 5 mg/m³, 8 Hr. TWA, Aerosol, & vapor, A5

AEL * (DuPont) : None Established

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Melting Point : Not Applicable
Solubility in Water : Negligible
Odor : Mild Ester
Form : Pellets
Specific Gravity : 1.06-1.11

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Conditions to Avoid

Temperatures above 245 C (473 F) .

Incompatibility with Other Materials

Incompatible or can react with strong acids, oxidizing agents.

(STABILITY AND REACTIVITY - Continued)

Decomposition

Hazardous gases or vapors can be released, including caprolactam, ammonia, carbon monoxide, hydrogen cyanide, nitrogen oxides, organic acids, aldehydes, and, alcohols.

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

Caprolactam

Skin Absorption LD50: 1410 mg/kg in rabbits
Oral LD50: 1210 mg/kg in rats
Inhalation 4 hour LC50: 8.1 mg/L in rats (as respirable aerosol)

Caprolactam is a skin irritant, a severe eye irritant, and is a mild skin sensitizer when tested at very high concentrations in animals.

Single dermal exposure to near lethal doses caused edema, and tremors or convulsions.

Single ingestion exposure in rats to near lethal doses caused irritation of the gastrointestinal tract, pathological changes of the brain and liver, tremors or convulsions, and altered liver enzyme activity. Repeated dosing of lower concentrations caused decreased body weight. Effects on kidney function have been observed but were attributable to a reversible physiologic change. Long term exposure caused body weight reductions, reduced food consumption, and anemia.

Single inhalation exposure in rats caused nasal/ocular irritation and alterations in blood pressure. Repeated inhalation exposure at high levels caused nasal/ocular irritation, lung and spleen pathology, and abnormal weight gain in rats. At lower levels, respiratory tract irritation with pathological changes in the nose and larynx were observed.

In animal testing Caprolactam has not caused carcinogenicity, developmental or reproductive toxicity.

There are reports indicating that Caprolactam produced genetic damage in some animal or mammalian cell culture tests; however, the majority of in vitro and in vivo reports in the literature show negative results.

ECOLOGICAL INFORMATION

Ecotoxicological Information

AQUATIC TOXICITY:

No information is available. Negligible solubility. Do not discharge to streams, ponds, lakes or sewers.

DISPOSAL CONSIDERATIONS

Waste Disposal

Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled, but incinerator must be capable of scrubbing out acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

TRANSPORTATION INFORMATION

Shipping Information

Not regulated in transportation by DOT/IMO/IATA.

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status : In compliance with TSCA Inventory requirements for commercial purposes.

State Regulations (U.S.)

STATE RIGHT-TO-KNOW

No substances on the state hazardous substances list, for the states indicated below, are used in the manufacture of products on this Material Safety Data Sheet, with the exceptions indicated.

SUBSTANCES ON THE PENNSYLVANIA HAZARDOUS SUBSTANCES LIST PRESENT AT A CONCENTRATION OF 1 % OR MORE (0.01% FOR SPECIAL HAZARDOUS SUBSTANCES)- None known.

WARNING - SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM- None known.

SUBSTANCES ON THE NEW JERSEY WORKPLACE HAZARDOUS SUBSTANCE LIST PRESENT AT A CONCENTRATION OF 1% OR MORE (0.1% FOR SUBSTANCES IDENTIFIED AS CARCINOGENS, MUTAGENS OR TERATOGENS)- Caprolactam

