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**MATERIAL SAFETY DATA SHEET**

**TECAMID™ Nylon 6/6 & TECAMID™ HS Nylon 6/6**

**EMERGENCY TELEPHONE:** 724-746-6050 or 856-227-0500  
**Issue Date:** September 1, 1985  
**Revised Date:** January 1, 2010  
**TRADE NAME:** Nylon 6/6 Natural, Heat Stabilized  
**CHEMICAL NAME:** Polyhexamethylene adipamide

**1. Composition/ Ingredient Information**

Material	CAS Number	Percent, %
Nylon 6/6	32131-17-2	>98%
Lubricants & Stabilizers		<2%

*Material is not known to contain Toxic Chemicals under Section 303 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.*

**2. Hazards Identification**

**POLYHEXAMETHYLENE ADIPAMIDE** In general, skin irritation hasn't been produced in human patch tests with nylon 6/6. However, a small percentage of subjects may respond to prolonged contact with skin redness. Significant skin permeation, and systemic toxicity, after contact appears unlikely. There are no reports of human sensitization.  
 If particles of nylon 6/6 contact the eye, mechanical irritation with tearing, pain or blurred vision may result.  
**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.

**3. First Aid Measures**

**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 if necessary.  
**Ingestion:** No specific intervention is indication as compound is not likely to be hazardous by ingestion.

**4. Fire Fighting Measures**

**Flammable Properties**

Flash Point Not Applicable  
 Large molten masses may ignite spontaneously in air. Water quenching of such masses is good practice.

**Fire & 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  
 Hazardous gases/vapors produced in fire are ammonia, carbon monoxide, traces of hydrogen cyanide, and aldehydes.

**Extinguishing Media**

Water, Foam, Dry Chemical, CO2

**Fire Fighting Instructions**

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus.

**5. Accidental Release Measures**

**Handling:** Minimize the generation and accumulation of dust.

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

**6. 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 the material, use local exhaust to control the concentration of dust below exposure limits.

**Personal Protective Equipment**

**Eye/Face protection:** Wear safety glasses. Wear overall chemical splash goggles and face shield when possibility exists for eye or face contact due to splashing or spraying of molten material. A full face mask positive pressure air supplied respirator provides protection from eye irritation.

**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.

During grinding, sawing routing, drilling or sanding operations use a NIOSH/MSHA approved air purifying respirator with dust/mist cartridge or canister if airborne particulate concentrations are expected to exceed permissible exposure levels.

**Protective Clothing:** If there is potential contact with hot/molten material, wear heat resistant clothing and footwear. Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding.

**Exposure Guidelines****Exposure Limits**

Nylon 6/6	None Established
PEL (OSHA)	None Established
TLV (ACGIH)	None Established
AEL (DuPont)	10 mg/m <sup>3</sup> , 8 Hr TWA, total dust 5 mg/m <sup>3</sup> , 8 Hr TWA, respirable dust

**7. Physical and Chemical Properties****Physical Data**

Melting Point	>200 C (392 F)
Solubility in H <sub>2</sub> O	Insoluble
Odor	None
Form	Stock Shapes
Specific Gravity	>1.0
Color	Natural (off-white) or Black

**8. Stability & Reactivity**

**Chemical Stability:** Stable at normal temperatures and storage conditions

**Conditions to Avoid:** Temperatures above 340C (644 F)

**Incompatibility with Other Materials:** Incompatible or can react with strong acids, oxidizing agents

**Decomposition:** Hazardous gasses or vapors can be released including ammonia, carbon monoxide, cyclopentanone, hydrogen cyanide, nitrogen oxides.

**Polymerization:** Polymerization will not occur

**9. Toxicological Information**

**Animal Data**

**Nylon 6/6:** Oral LD50, rat: > 10,000 mg/kg

Nylon 6/6 is not a skin irritant in tests with animals.

Single exposure by ingestion to high doses cause decreased body weight. Long term exposure cause no significant toxicological effects.

repeated inhalation exposure caused histopathological changes of the lungs and kidneys.

In animal testing Nylon 6/6 has not caused carcinogenicity. No animal data are available to define developmental, reproductive, or mutagenic hazards.

**10. Ecological Information**

**Ecotoxicological Information**

**Aquatic Toxicity:** No information is available. Toxicity is expected to be low based on insolubility in water. Do not discharge to streams, ponds, lakes, or sewers

**11. Disposal Consideration**

**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.

**12. Transportation Information**

**Shipping Information:** Not regulated by transportation by DOT/IMO/IATA.

**13. 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 Laws

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

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): None Known

**14. Other Information**

**Additional Information**

**Medical Use:** CAUTION: Do not use in medical applications involving permanent implantation in the human body.

*This material safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe this information to be correct but cannot guarantee its accuracy or completeness. Health and safety precaution in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulation. No statement made in the data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either express or implied.*