MATERIAL SAFETY DATA SHEET

Product: Monofilament produced from polyvinylidene fluoride (PVDF) polymer

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAMES: ISOray™ Thread, MX-126, MX-127, MX-800, FL-8

PRODUCT USE: Industrial sewing and Weaving Applications

MANUFACTURER: Jarden Applied Materials
6111 Shakespeare Road
Columbia, South Carolina 29223
Telephone: 803-754-7011
FAX: 803-754-7991

EMERGENCY PHONE NUMBER: 1-800-535-5035 INFOTRAC

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME:	Weight (%)	CAS NUMBER
Polyvinylidene Fluoride	> 99%	24937-79-9
Carbon Black	< 1.0%	1333-86-4

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Synthetic plastic fiber with slight characteristic odor. Fiber is not considered hazardous at ambient conditions. Hazards due to contact with product at high temperature. In case of decomposition, releases dangerous products. Note: When decomposition by high heat, or by smoking tobacco or cigarettes contaminated with polymer/fiber dust, may cause flu-like illness with fever and chills which will pass within 36-48 hours. Possibility of ingestion hazard to wildlife.

Potential Health Effects:
Eyes: Product fines may cause mechanical irritation**;** eyes should be washed out immediately with water
Skin: Negligible
Inhalation: Negligible
Ingestion: Negligible

Ingredients found on one of the OSHA/WHIMS designated carcinogen lists are provided below:

INGREDIENT NAME:

NTP STATUS	IARC STATUS	OSHA LIST	ACGIH STATUS
None	None	None	None

4. FIRST AID MEASURES

Skin: Negligible for unheated product. In case of contact with molten polymer, cool rapidly with cold water without attempting to peel from the skin. Obtain medical treatment for burns.
Eyes: In case of contact, flush eyes with running water for several minutes, while keeping the eyelids wide open. Seek medical attention if condition persists.
Inhalation: Negligible.
Ingestion: If the subject is completely conscious – Negligible.
If the subject is unconscious – Not applicable.
Advice to physician: This product is essentially inert and non-toxic. .

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point: Not Applicable
Auto-flammability: No data
Flammability: Lower limit = 70g/m^3
Danger of Explosion: Negligible
Oxidizing Properties: Non-oxidizer
Extinguishing Media: In case of fire in close proximity, most means of extinguishing are acceptable

Specific Hazards:

- In a fire, the polymer is considered auto-extinguishing and so is unable to propagate fire.
- Strong energy source necessary for ignition.
- Formation of dangerous gas/vapor in case of combustion.

Protective Measures in Case of Intervention:

- Evacuate all non-essential personnel.
- Intervention only by capable personnel who are trained and aware of the hazards of the product.
- In all cases wear self-contained breathing apparatus (SCBA).
- Wear chemically resistant over-suits.
- After intervention, proceed to clean the equipment (take a shower, remove clothing carefully, clean and check).

Other Precautions:

- If safe to do so, remove the exposed containers, etc.
- After the fire, proceed rapidly to clean the surfaces exposed to the fumes in order to limit the damage to the equipment.
- As for any fire, ventilate and clean the rooms before re-entry.

6. ACCIDENTAL RELEASE MEASURES

Precautions:

- Follow the protective measures given in section 8.
- Avoid dispersing the dust into a cloud.
- Spilled material/monofilament can be slipping hazard.

Cleanup Methods:

- Collect the product with suitable means avoiding dust formation.
- Place everything into a closed, labeled container compatible with the product.

- For disposal methods, refer to section 13.

Precautions for Protection of the Environment:

- Prevent discharges into the environment (sewers, rivers, soils, etc).

7. HANDLING AND STORAGE

Handling:

- Prevent any product decomposition from contacting hot spots.
- Use electrically conductive materials for piping circuits and equipment.

Storage:

- Keep away from heat sources.
- Keep away from combustible substances.

Other Precautions:

- Grounded equipment.
- Follow the protective measures given in Section 8.
- Prohibit smoking or smoking materials when handling this product.

Packaging:

- Carton & polyethylene materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

- Follow the protective measures given in section 7.
- Provide local ventilation suitable for the product decomposition risk (see section 9).
- Maintain employee exposures to levels below the applicable exposure limits.

Authorized Limit Values:

- ACGIH TLV®: 10 mg/m^3 inhalable and 3 mg/m^3 respirable Particulates Not Otherwise Classified (PNOC).
- OSHA Permissible Exposure Limit 5 mg/m^3 total dust, 5 mg/m^3 respirable fraction PNOC.
- The OSHA Permissible Exposure Limit for hydrogen fluoride from decomposition is 3 ppm.

Respiratory Protection:

- In case of dust use NIOSH approved dust respirator.
- In case of decomposition hazard (see section 10), use air supplied full face respirator to prevent exposure to hydrofluoric acid.
- Self-contained breathing apparatus in medium confinement/insufficient oxygen/in case of large uncontrolled emissions.

Hand Protection:

- Protective gloves against molten polymer.
- Protective gloves, if risk of decomposition.
- Protective gloves when handling fiber. Wash hands after use.

Eye Protection:

- Wear safety glasses with side shields as a minimum, protective goggles as needed for additional protection.

Skin Protection:

- Only as necessary to protect against molten polymer.

Additional recommendations:

Exposure Guidelines:

- Operators performing grinding and machining of product should be reviewed to assure particulate levels are kept below recommended standards.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Filament
Physical State: Solid
Odor: Odorless
Specific Gravity: >1.75 (H20 = 1)
Solubility in Water: Insoluble
Slightly Soluble in: Dimethyl formamide
N-methyl pyrrolidone
Dimethyl acetamide
pH: Not Applicable
Boiling Point: Not Applicable
Melting Point: 170 - 175 deg C
Decomposition Temperature:
> 290 deg C
Vapor Pressure: Not Applicable
Evaporation Rate: Not Applicable
% Volatile: Not applicable
Flash Point: Not Applicable
Color: Translucent to White

10. STABILITY AND REACTIVITY

Stability (Conditions to Avoid):

- Product is stable under ordinary conditions of use and storage. Avoid exposure to open flame or temperatures exceeding optimum operating temperatures. Consult technical service personnel for recommended processing conditions.
- Decomposition produces dangerous gases upon contact with flames, or hot metallic surfaces.

Incompatibilities:

- Negligible.

Hazardous Decomposition Products:

- Hydrogen fluoride
- Particulates of carbon
- Carbon monoxide
- Carbonyl fluoride

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

Comments:

- No specific data.
- Biologically inert and little toxicity in solid form.
- Note: Decomposition risk: When decomposed by high heat, or by smoking tobacco or cigarettes contaminated with polymer dust, a flu-like illness with fevers and chills may result which will pass within 36 – 48 hours. Acute or chronic overexposure to hydrogen fluoride can injure the liver and kidneys.

12. ECOLOGICAL INFORMATION

Comments:

- No specific data.

- Product is biologically inert and non-degradable.

13. DISPOSAL CONSIDERATIONS

Waste Treatment:

- Dispose in compliance with local/federal and national regulations.
- Send the product to an authorized industrial waste incinerator.
- The incinerator must be equipped with a system for the neutralization of hydrogen fluoride (HF).
  Or…
- Dispose of product at a landfill authorized for industrial waste.

Packaging Treatment:

- Containers that cannot be cleaned must be treated as waste.
- The empty and clean containers are to be reused in conformity with regulations.

14. TRANSPORTATION INFORMATION

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

15. REGULATORY INFORMATION

This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

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

US FOOD AND DRUG ADMINISTRATION (FDA): Not Applicable

SARA TITLE III/CERCLA;

SARA/CERCLA HAZARDOUS SUBSTANCES: Reportable Quantities (RQ) and/or "Threshold Planning Quantities (TPQ's) do not exist for this product.

16. OTHER INFORMATION

CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:
Changed Company Name and logo.

Disclaimer: This product is not intended for use in medical implants.
The information contained herein is presented in good faith and is accurate to the best of our knowledge. Jarden can not guarantee that any hazards listed herein are the only ones which may exist. Jarden makes no warranty of any kind, expressed or implied, concerning the safe use of this material in your process or in combination with other substances. User has the sole responsibility to determine the suitability of the material for their use. User must meet all applicable safety and health standards.

Refer to the appropriate Jarden bulletin for specific processing guide lines and good manufacturing practices.

CURRENT ISSUE DATE: 15 April 2008
PREVIOUS ISSUE DATE: 11 May 2006

PREPARED BY: Peter Brissette
803-754-7011