



3M MATERIAL SAFETY DATA SHEET Dyneon (TM) FEP X 6301, FEP X6303, FEP X6307, FEP X6309, FEP X6322, FEP X6322 HT  
11/22/2002



A 3M Company

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Dyneon (TM) FEP X 6301, FEP X6303, FEP X6307, FEP X6309, FEP X6322, FEP X6322 HT

**MANUFACTURER:** DYNEON

**DIVISION:** Dyneon

**ADDRESS:** 6744 33 St. No.  
Oakdale, MN 55128

**EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)**

**Issue Date:** 08/10/2004

**Supersedes Date:** 02/27/2004

**Document Group:** 08-8092-2

### Product Use:

Specific Use Thermoplastic

## SECTION 2 - INGREDIENTS

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>% by Wt</b>
TETRAFLUOROETHYLENE / HEXAFLUOROPROYLENE COPOLYMER	25067-11-2	100

## SECTION 3 - HAZARDS IDENTIFICATION

### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Granules

**Odor, Color, Grade:** Transparent, odorless.

**General Physical Form:** Solid

**Immediate health, physical, and environmental hazards:** May cause target organ effects.

### 3.2 POTENTIAL HEALTH EFFECTS

#### Eye Contact:

During heating:

Vapors from heated material may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Thermal Burns: Signs/symptoms may include severe pain, redness and swelling, and tissue destruction.

#### Skin Contact:

During heating:

Thermal Burns: Signs/symptoms may include intense pain, redness and swelling, and tissue destruction.

**Inhalation:**

During heating:

Polymer Fume Fever: Sign/symptoms may include chest pain or tightness, shortness of breath, cough, malaise, muscle aches, increased heart rate, fever, chills, sweats, nausea and headache.

Vapors from heated material may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

**If thermal decomposition occurs:,br>**

May be absorbed following inhalation and cause target organ effects.

**Ingestion:**

No health effects are expected.

**SECTION 4: FIRST AID MEASURES****4.1 FIRST AID PROCEDURES**

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes. If signs/symptoms persist, get medical attention. If eye contact with hot material occurs: DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Immediately flush affected area with plenty of cold water and cover with a clean dressing. Have burn treated by a physician.

**Skin Contact:** Wash affected area with soap and water. If signs/symptoms develop, get medical attention. If skin contact with hot material occurs: DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Immediately flush affected area with plenty of cold water and cover with a clean dressing. Have burn treated by a physician.

**Inhalation:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

**If Swallowed:** No need for first aid is anticipated.

**SECTION 5: FIRE FIGHTING METHODS****5.1 FLAMMABLE PROPERTIES**

<b>Autoignition temperature</b>	Not Applicable
<b>Flash Point</b>	Not Applicable
<b>Flammable Limits - LEL</b>	Not Applicable
<b>Flammable Limits - UEL</b>	Not Applicable

**5.2 EXTINGUISHING MEDIA**

Non-combustible. Choose material suitable for surrounding fire.

**5.3 PROTECTION OF FIRE FIGHTERS**

**Special Fire Fighting Procedures:** Exposure to extreme heat can give rise to thermal decomposition. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Not applicable.

**Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.**

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Accidental Release Measures:** Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. Collect as much of the spilled material as possible. Use wet sweeping compound or water to avoid dusting. Sweep up. Clean up residue. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

## SECTION 7: HANDLING AND STORAGE

### 7.1 HANDLING

Avoid skin contact with hot material. For industrial or professional use only. Store work clothes separately from other clothing, food and tobacco products. No smoking: Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to polymer fume fever caused by the formation of the hazardous decomposition products mentioned in the Reactivity Data section of this MSDS.

### 7.2 STORAGE

Keep container tightly closed.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Provide appropriate local exhaust when product is heated. For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines.

### 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### 8.2.1 Eye/Face Protection

Avoid eye contact.

The following eye protection(s) are recommended: Safety Glasses with side shields, Indirect Vented Goggles.

#### 8.2.2 Skin Protection

Avoid skin contact with hot material. Wear appropriate gloves, such as Nomex, when handling this material to prevent thermal burns.

#### 8.2.3 Respiratory Protection

Avoid breathing of dust.

During heating:

Avoid breathing of vapors.

Use a positive pressure supplied-air respirator if there is a potential for exposure from an uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with N95 particulate filters. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

#### 8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

### 8.3 EXPOSURE GUIDELINES

None Established

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Specific Physical Form:</b>	Granules
<b>Odor, Color, Grade:</b>	Transparent, odorless.
<b>General Physical Form:</b>	Solid
<b>Autoignition temperature</b>	<i>Not Applicable</i>
<b>Flash Point</b>	<i>Not Applicable</i>
<b>Flammable Limits - LEL</b>	<i>Not Applicable</i>
<b>Flammable Limits - UEL</b>	<i>Not Applicable</i>
<b>Boiling point</b>	<i>Not Applicable</i>
<b>Density</b>	2.1 - 2.2 g/cm <sup>3</sup>
<b>Vapor Density</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	<i>Not Applicable</i>
<b>Specific Gravity</b>	2.1 - 2.2 [Ref Std: WATER=1]
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	240 - 280 oC [Details: CONDITIONS: ASTM D 2116]
<b>Solubility in Water</b>	Nil
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Volatile Organic Compounds</b>	<i>Not Applicable</i>
<b>Percent volatile</b>	0 %
<b>VOC Less H<sub>2</sub>O &amp; Exempt Solvents</b>	<i>Not Applicable</i>
<b>Viscosity</b>	<i>Not Data Available</i>

**SECTION 10: STABILITY AND REACTIVITY**

**Stability:** Stable.

**Materials and Conditions to Avoid:** Alkali and alkaline earth metals; Reactions with metals in powder form occur from 370 degrees C onwards.

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Hazardous Decomposition or By-Products**

<b>Substance</b>	<b>Condition</b>
Carbonyl Fluoride	At Elevated Temperatures
Carbon monoxide	At Elevated Temperatures
Carbon dioxide	At Elevated Temperatures
Hydrogen Fluoride	At Elevated Temperatures
Perfluoroisobutylene (PFIB)	At Elevated Temperatures
Toxic Vapor, Gas, Particulate	At Elevated Temperatures

**SECTION 11: TOXICOLOGICAL INFORMATION**

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

**SECTION 12: ECOLOGICAL INFORMATION****ECOTOXICOLOGICAL INFORMATION**

Not determined.

**CHEMICAL FATE INFORMATION**

Not determined.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** Reclaim if feasible. Dispose of waste product in a facility permitted to accept chemical waste. Combustion products will include HCl. Facility must be capable of handling halogenated materials.

**EPA Hazardous Waste Number (RCRA):** Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

**SECTION 14: TRANSPORT INFORMATION****ID Number(s):**

97-5000-0417-7, 97-5000-0418-5, 97-5000-0419-3, 97-5000-0430-0, 97-5000-0431-8, 97-5000-0492-0, 97-5000-0528-1, 975000-0536-4, 97-5000-0608-1, 97-5000-0689-1, 97-5000-0692-5, 97-5000-0837-6, 97-5000-0843-4, 97-5000-0855-8, 97-50000965-5, 97-5000-0967-1, 97-5000-0971-3, 97-5000-0975-4, 97-5000-1035-6, 97-5000-1036-4, 97-5000-1040-6, 97-5000-1043-0, 97-5000-1044-8, 98-0211-9710-2, 98-0211-9711-0, 98-0213-0506-9, 98-0213-0584-6, 98-0213-0585-3

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

**SECTION 15: REGULATORY INFORMATION****US FEDERAL REGULATIONS**

Contact 3M for more information.

**311/312 Hazard Categories:**

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - No Delayed Hazard - No

**STATE REGULATIONS**

Contact 3M for more information.

**CHEMICAL INVENTORIES,**br> All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

The components of this material are in compliance with the new chemical notification requirements for the Korean Existing Chemicals Inventory.

The components of this product are listed on the Australian Inventory of Chemical Substances.

The components of this product are listed on Japan's Chemical Substance Control Law List (also known as the Existing and New Chemical Substances List.)

All the components of this product are listed on China's Inventory of Chemical Substances.

The components of this product are in compliance with notification requirements in the Philippines.

The components of this product are listed on the Canadian Domestic Substances List.

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

#### **INTERNATIONAL REGULATIONS**

Contact 3M for more information.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### **SECTION 16: OTHER INFORMATION**

#### **NFPA Hazard Classification**

**Health: 1 Flammability: 0 Reactivity: 0 Special Hazards: None**

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

#### **HMIS Hazard Classification**

**Health: 1 Flammability: 0 Reactivity: 0 Protection: X - See PPE section.**

Hazardous Material Identification System (HMIS(r)) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS(r) ratings are to be used with a fully implemented HMIS(r) program. HMIS(r) is a registered mark of the National Paint and Coatings Association (NPCA).

#### **Revision Changes:**

Section 16: NFPA hazard classification heading was modified.

Section 16: HMIS hazard classification heading was modified.

Section 15: 311/312 hazard categories heading was modified.

Section 15: International regulations information was modified.

Section 15: State regulations information was modified.

Section 15: US federal regulations information was modified.

Section 10: Hazardous polymerization heading was modified.

Section 14: ID Number(s) was modified.

Section 16: HMIS explanation was modified.

Section 16: NFPA explanation was modified.

Section 15: Inventories information was modified.

Section 12: Ecotoxicological information heading was modified.

Section 12: Chemical fate information heading was modified.

Section 16: NFPA hazard classification for special hazards was modified.

Section 8: Exposure guidelines information - none - was modified.

Section 12: Ecotoxicological phrase was modified.

Section 12: Chemical Fate phrase was modified.

Section 2: Ingredient phrase was added.

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