

# **Safety Data Sheet**

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## **SECTION 1: Identification**

### 1.1. Product identifier

3M<sup>™</sup> Dyneon<sup>™</sup> Peroxide Cure Perfluoroelastomer PFE 40

## **Product Identification Numbers**

80-0015-0171-9, 98-0213-3840-9, UU-0108-2134-4, UU-0108-2195-5 7100215079, 7100214952, 7100238537, 7100301818

#### 1.2. Recommended use and restrictions on use

#### Recommended use

Peroxide cure perfluoroelastomer

## 1.3. Supplier's details

MANUFACTURER: 3M

**DIVISION:** Advanced Materials Division

ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA

**Telephone:** 1-888-3M HELPS (1-888-364-3577)

#### 1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

## **SECTION 2: Hazard identification**

## 2.1. Hazard classification

Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

## 2.2. Label elements

## Signal word

Not applicable.

## **Symbols**

Not applicable.

## **Pictograms**

Not applicable.

## **Supplemental Information:**

May cause thermal burns. The health hazards of this material are not completely known. See the SDS.

100% of the mixture consists of ingredients of unknown acute oral toxicity.

# **SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
Perfluoro(methyl vinyl ether)-Tetrafluoroethylene	26425-79-6	100
Copolymer		

# **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

#### Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

#### Skin Contact:

Immediately flush skin with large amounts of cold water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Cover affected area with a clean dressing. Get immediate medical attention.

#### Eye Contact:

Immediately flush eyes with large amounts of water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Get immediate medical attention.

#### If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

No critical symptoms or effects. See Section 11.1, information on toxicological effects.

## 4.3. Indication of any immediate medical attention and special treatment required

Not applicable.

# **SECTION 5: Fire-fighting measures**

## 5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

## 5.2. Special hazards arising from the substance or mixture

Exposure to extreme heat can give rise to thermal decomposition.

## **Hazardous Decomposition or By-Products**

Substance	<b>Condition</b>
Tetrafluoroethylene	During Combustion
Carbonyl Fluoride	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Fluoride	During Combustion
Perfluoroisobutylene (PFIB)	During Combustion
Toxic Vapor, Gas, Particulate	During Combustion

#### 5.3. Special protective actions for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

## **SECTION 6: Accidental release measures**

## 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Observe precautions from other sections.

#### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

# **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

Avoid eye contact. Do not breathe thermal decomposition products. Avoid skin contact with hot material. For industrial/occupational use only. Not for consumer sale or use. Store work clothes separately from other clothing, food and tobacco products. Avoid skin contact. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. No smoking: Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to the formation of hazardous decomposition products.

### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

# **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

#### Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

### 8.2. Exposure controls

### 8.2.1. Engineering controls

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. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Local exhaust required above 400 C.

## 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety Glasses with side shields

## Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions.

Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended: Neoprene

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - Neoprene

#### Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use a positive pressure supplied-air respirator.

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

#### Thermal hazards

Wear heat insulating gloves, indirect vented goggles, and a full face shield when handling hot material to prevent thermal burns.

# **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

**Appearance** 

Physical state Solid Color White

Specific Physical Form: Solid Block or Slab

**Odor** Odorless

Odor thresholdNo Data AvailablepHNot ApplicableMelting point> 500 °F

**Boiling Point** Not Applicable Flash Point No flash point **Evaporation rate** No Data Available Flammability (solid, gas) Not Classified Flammable Limits(LEL) Not Applicable Flammable Limits(UEL) Not Applicable Vapor Pressure Not Applicable Vapor Density Not Applicable **Density** 2.0 g/cm3

**Specific Gravity** No Data Available **Solubility In Water** No Data Available Solubility- non-water No Data Available Partition coefficient: n-octanol/ water No Data Available **Autoignition temperature** No Data Available **Decomposition temperature** No Data Available Not Applicable Viscosity Molecular weight No Data Available Percent volatile No Data Available

# **SECTION 10: Stability and reactivity**

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## 10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

#### 10.2. Chemical stability

Stable.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

None known

## 10.5. Incompatible materials

None known.

## 10.6. Hazardous decomposition products

Substance Methyl Iodide Condition

While curing

Refer to section 5.2 for hazardous decomposition products during combustion.

If the product is exposed to extreme condition of heat from misuse or equipment failure, toxic decomposition products that include hydrogen fluoride and perfluoroisobutylene can occur.

# **SECTION 11: Toxicological information**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

## 11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

#### **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.

#### **Skin Contact:**

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

#### **Eve Contact:**

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

#### **Ingestion:**

No information available.

#### **Additional Information:**

The health hazards of this material are not completely known. Conservative safe handling measures should be followed (as

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described in sections 7 and 8), and appropriate first aid measures (as described in section 4) should be taken if exposure occurs.

## **Toxicological Data**

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

#### **Acute Toxicity**

Name	Route	Species	Value

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

For the component/components, either no data are currently available or the data are not sufficient for classification.

## Serious Eye Damage/Irritation

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### **Skin Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

### Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

## **Germ Cell Mutagenicity**

For the component/components, either no data are currently available or the data are not sufficient for classification.

## Carcinogenicity

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### **Reproductive Toxicity**

#### Reproductive and/or Developmental Effects

For the component/components, either no data are currently available or the data are not sufficient for classification.

## Target Organ(s)

## Specific Target Organ Toxicity - single exposure

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### Specific Target Organ Toxicity - repeated exposure

For the component/components, either no data are currently available or the data are not sufficient for classification.

## **Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

# **SECTION 12: Ecological information**

## **Ecotoxicological information**

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

#### Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

# **SECTION 13: Disposal considerations**

## 13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include HF. Facility must be capable of handling halogenated materials. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

EPA Hazardous Waste Number (RCRA): Not regulated

# **SECTION 14: Transport Information**

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

# **SECTION 15: Regulatory information**

## 15.1. US Federal Regulations

Contact 3M for more information.

## **EPCRA 311/312 Hazard Classifications:**

## Physical Hazards

Not applicable

## **Health Hazards**

Not applicable

## 15.2. State Regulations

Contact 3M for more information.

## 15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

## 15.4. International Regulations

Contact 3M for more information.

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

## **SECTION 16: Other information**

## NFPA Hazard Classification

Health: 3 Flammability: 1 Instability: 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.

The NFPA Health code of 3 is due to emergency situations where the material may thermally decompose and release Hydrogen Fluoride and Perfluoroisobutylene (PFIB). During normal use conditions, please reference Section 2 and Section 11 of the SDS for additional health hazard information.

### **HMIS Hazard Classification**

**Health:** 0 Flammability: 1 Physical Hazard: 0 Personal Protection: X - See PPE section.

Hazardous Material Identification System (HMIS® IV) 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® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

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