



## Safety Data Sheet

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<b>Document group:</b>	31-9298-6	<b>Version number:</b>	1.00
<b>Revision date:</b>	12/02/2021	<b>Supersedes date:</b>	Initial issue.

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

3M™ Dyneon™ Fluoroplastics PVDF 6012/0000

#### Product Identification Numbers

98-0213-1168-7

7000059339

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### Identified uses

Fluoropolymer for industrial processing

#### 1.3. Details of the supplier of the safety data sheet

**Address:** 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.  
**Telephone:** +44 (0)1344 858 000  
**E Mail:** tox.uk@mmm.com  
**Website:** www.3M.com/uk

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

##### CLASSIFICATION:

This material is not classified as hazardous according to Regulation (EC) No. 1272/2008, as amended, on classification, labelling, and packaging of substances and mixtures.

#### 2.2. Label elements

**CLP REGULATION (EC) No 1272/2008**

Not applicable

**Ingredients:**

Ingredient	CAS Nbr	EC No.	% by Wt
PVDF Homopolymer	24937-79-9		100

**SUPPLEMENTAL INFORMATION:****Supplemental Precautionary Statements:**

Firefighting instructions: Does not burn without external flame. Wear self-contained breathing apparatus and protection from acidic hydrogen fluoride. Vapours liberated during processing may be hazardous if inhaled. Eye, nose, throat and lung irritation can occur from such vapours. Avoid contamination of tobacco with polymer resin. Before using, read the most current Safety Data Sheet.

**2.3. Other hazards**

May cause thermal burns.

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
PVDF Homopolymer	(CAS-No.) 24937-79-9	100	Substance not classified as hazardous

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

**3.2. Mixtures**

Not applicable

**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. 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.

#### 5.3. Advice 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 vapours, 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. Use wet sweeping compound or water to avoid dusting. Sweep up. 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.

#### 6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Avoid inhalation of 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. Do not breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

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

No special storage requirements.

#### 7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

### 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 Safety Data Sheet.

### Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

## 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/vapours/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:

Full face shield.

Indirect vented goggles.

#### *Applicable Norms/Standards*

Use eye/face protection conforming to EN 166

#### 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:

Material	Thickness (mm)	Breakthrough Time
Nitrile rubber.	No data available	No data available

#### *Applicable Norms/Standards*

Use gloves tested to EN 374

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 – Nitrile

#### Respiratory protection

During heating:

Use a positive pressure supplied-air respirator if there is a potential for over exposure from an uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

#### Thermal hazards

Wear heat insulating gloves when handling hot material to prevent thermal burns.

*Applicable Norms/Standards*

Use gloves tested to EN 407

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Solid.
Specific Physical Form:	Pellets
Colour	White
Odor	Odourless
Odour threshold	<i>No data available.</i>
Melting point/freezing point	170 - 175 °C
Boiling point/boiling range	<i>Not applicable.</i>
Flammability (solid, gas)	Not classified
Flammable Limits(LEL)	<i>Not applicable.</i>
Flammable Limits(UEL)	<i>Not applicable.</i>
Flash point	No flash point
Autoignition temperature	<i>Not applicable.</i>
Decomposition temperature	<i>No data available.</i>
pH	<i>substance/mixture is non-soluble (in water)</i>
Kinematic Viscosity	<i>Not applicable.</i>
Water solubility	Negligible
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Vapour pressure	<i>Not applicable.</i>
Density	1.7 g/cm <sup>3</sup> - 1.9 g/cm <sup>3</sup>
Relative density	1.7 - 1.9 [Ref Std: WATER=1]
Relative Vapor Density	<i>Not applicable.</i>

### 9.2. Other information

#### 9.2.2 Other safety characteristics

EU Volatile Organic Compounds	<i>No data available.</i>
Evaporation rate	<i>Not applicable.</i>
Molecular weight	<i>No data available.</i>
Percent volatile	<i>Not applicable.</i>

## SECTION 10: Stability and reactivity

### 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 polymerisation will not occur.

### 10.4 Conditions to avoid

None known.

### 10.5 Incompatible materials

None known.

**10.6 Hazardous decomposition products****Substance**

Carbonyl fluoride.  
Carbon monoxide  
Carbon dioxide.  
Hydrogen Fluoride  
Toxic vapour, gas, particulate.

**Condition**

At elevated temperatures. - above 290 °C  
At elevated temperatures. - above 290 °C  
At elevated temperatures. - above 290 °C  
At elevated temperatures. - above 290 °C  
At elevated temperatures. - above 290 °C

Extreme heat arising from situations such as misuse or equipment failure can generate hydrogen fluoride as a decomposition product.

**SECTION 11: Toxicological information**

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from internal hazard assessments.

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****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.

**Eye contact**

During heating:

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

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

**Ingestion**

May be harmful if swallowed.

**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
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
PVDF Homopolymer	Dermal		LD50 estimated to be > 5,000 mg/kg
PVDF Homopolymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
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**3M™ Dyneon™ Fluoroplastics PVDF 6012/0000**

PVDF Homopolymer	Professional judgement	No significant irritation
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**Serious Eye Damage/Irritation**

Name	Species	Value
PVDF Homopolymer	Professional judgement	No significant irritation

**Skin Sensitisation**

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

**Respiratory Sensitisation**

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

**Germ Cell Mutagenicity**

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

**Carcinogenicity**

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

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

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

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

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

**Specific Target Organ Toxicity - repeated exposure**

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

**Aspiration Hazard**

For the component/components, either no data is currently available or the data is 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.**

**11.2. Information on other hazards**

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

**SECTION 12: Ecological information**

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

**3M™ Dyneon™ Fluoroplastics PVDF 6012/0000****12.1. Toxicity**

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
PVDF Homopolymer	24937-79-9		Data not available or insufficient for classification			N/A

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
PVDF Homopolymer	24937-79-9	Data not available or insufficient			N/A	

**12.3 : Bioaccumulative potential**

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
PVDF Homopolymer	24937-79-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

**12.4. Mobility in soil**

No test data available.

**12.5. Results of the PBT and vPvB assessment**

This material does not contain any substances that are assessed to be a PBT or vPvB

**12.6. Endocrine disrupting properties**

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

**12.7. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

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

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. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

**EU waste code (product as sold)**

070213 Waste plastic



**SECTION 14: Transportation information**

Not hazardous for transportation.

	<b>Ground Transport (ADR)</b>	<b>Air Transport (IATA)</b>	<b>Marine Transport (IMDG)</b>
<b>14.1 UN number</b>	No data available.	No Data Available	No Data Available
<b>14.2 UN proper shipping name</b>	No data available.	No Data Available	No Data Available
<b>14.3 Transport hazard class(es)</b>	No data available.	No Data Available	No Data Available
<b>14.4 Packing group</b>	No data available.	No Data Available	No Data Available
<b>14.5 Environmental hazards</b>	No data available.	No Data Available	No Data Available
<b>14.6 Special precautions for user</b>	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
<b>14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code</b>	No data available.	No Data Available	No Data Available
<b>Control Temperature</b>	No data available.	No Data Available	No Data Available
<b>Emergency Temperature</b>	No data available.	No Data Available	No Data Available
<b>ADR Tunnel Code</b>	No data available.	Not Applicable	No Data Available
<b>ADR Classification Code</b>	No data available.	No Data Available	No Data Available
<b>ADR Transport Category</b>	No data available.	No Data Available	No Data Available
<b>ADR Multiplier</b>	No data available.	No Data Available	No Data Available
<b>IMDG Segregation Code</b>	No data available.	No Data Available	No Data Available
<b>Transport not Permitted</b>	No data available.	No Data Available	No Data Available

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

## **SECTION 15: Regulatory information**

### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

### **15.2. Chemical Safety Assessment**

A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended.

## **SECTION 16: Other information**

### **Revision information:**

No revision information

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