

# Safety Data Sheet

According to Regulation (EU) No. 1907/2006 (REACH), Annex II

Version: 1.0/EN  
Trade name: FEP (EW2)  
28/12/2010

Revision date: 28/12/2010  
Printing date:

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

### 1.1 Product identifier

**Product name:** Perfluorinated Ethylene Propylene Copolymer(FEP)  
**Product description:** Excellent thermal stability, excellent electrical insulation and chemical inertness. Low coefficient of friction, excellent resistance to atmospheric aging, resistance to gas (vapor) permeability and non-flammable. Used in manufacture of cable, stay tube and pressed film. Processing Method: molding, extrusion, injection molding depending on the melt flow rate.  
**Substance name:** 1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1,2,2-tetrafluoroethene  
**CAS No.:** 25067-11-2  
**REACH Reg. No.:** The provisions of registration shall not apply to polymers under REACH. The monomers of this polymer are CAS # 359-35-3 and 116-15-4. CAS # 116-15-4 has been pre-registered. The transition time according to REACH Regulation, Article 23 is still not expired. Pre-reg. No.: 17-2119445502-46-0000

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

**Identified uses:** Used in manufacture of cable, stay tube and pressed film.  
**Uses advised against:** No uses advised against.

### 1.3 Details of the supplier of the SDS

**Only Representative:** REACH COMPLIANCE SERVICES LIMITED  
**Address:** 306 The Capel Building, Mary's Abbey, Dublin 7, Ireland  
**E-mail:** Info@reach24h.com

**Manufacturer:** JINHUA YONGHE FLUOROCHEMICAL CO., LTD.  
**Address:** JINXI DEVELOPMENT AREA, JINHUA, ZHEJIANG, CHINA  
**E-mail:** Yonghe\_gas8@qhyh.com  
**Telephone:** +86 579 83186711  
**Fax:** +86 579 83186717

**Importer:**  
**Address:**  
**E-mail:**  
**Telephone:**  
**Fax:**

### 1.4 Emergency telephone number

+86 579 2660119(China)

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## Section 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008[CLP]

The product is not classified as hazardous under Regulation (EC) No 1272/2008[CLP].

Classification according to Council Directive 67/548/EEC [DSD]

The product is not classified as hazardous under Council Directive 67/548/EEC.

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

No label information available. The product is not classified as hazardous under Regulation (EC) No 1272/2008 [CLP].

### 2.3 Other hazards

## Section 3: Composition/information on ingredients

### 3.1 Substance information

Substance name	CAS No.	Molecular formula	Classification according to DSD	Classification according to CLP	% (w/w)
1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1,2,2-tetrafluoroethene (FEP)	25067-11-2	(C <sub>3</sub> F <sub>6</sub> .C <sub>2</sub> F <sub>4</sub> ) <sub>x</sub>	No classification.	No classification.	100

## Section 4: First aid measures

### 4.1 Description of first aid measures

**General notes:** In all cases of doubt, or when symptoms persist, seek medical attention.

**Following inhalation:**

If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.

**Following skin contact:**

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.

**Following eye contact:**

Immediately flush eyes with large amounts of water. Get immediate medical attention.

**Following ingestion:**

Ingestion is not considered a potential route of exposure.

**Notes for the doctor:**

Inhalation of decomposition products from processing conditions or from smoking fluoropolymer

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contaminated tobacco may cause a temporary flu-like illness known as "polymer-fume fever". Refer to the Health Hazards section of this document for additional information on symptoms of exposure.

Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident.

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

**Skin:** Skin Burns (from contact with molten material): signs/symptoms may include burning pain, red and swollen skin, and blisters.

**Inhalation:** If thermal decomposition occurs: Vapors of heated material may cause respiratory system irritation. Polymer Fume Fever: A temporary flu-like illness with shortness of breath, fever, coughing, cyanosis and shivering can result from inhalation of fluoropolymer decomposition products. Smoking fluoropolymer contaminated tobacco can contribute to exposure to decomposition products. Symptoms usually appear after two hours and decline within the next 36 to 48 hours. Persistent or cumulative respiratory effects have been rarely documented or observed.

## 4.3 Indication of the immediate medical attention and special treatment needed

Attending physician should treat exposed patients symptomatically.

## Section 5: Fire-fighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media:**

Water, Carbon dioxide, Dry powder, Foam.

**Unsuitable extinguishing media:**

For this substance/mixture no limitations of extinguishing agents are given.

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

Substance is incombustible.

Does not burn without external fuel source.

Fluoropolymers can increase toxic properties of gases evolved during fire.

### 5.3 Advice for fire-fighters

Stay in danger area only with self-contained breathing apparatus.

Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

## Section 6: Accidental release measures

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

Advice for non-emergency personnel: Avoid substance contact.

Avoid inhalation of dusts. Ensure adequate ventilation.

Evacuate the danger area, observe emergency procedures, consult an expert.

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## 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.  
Discharge into the environment must be avoided.

## 6.3 Methods and material for containment and cleaning up

Ventilate area, sweep or pick up and dispose of in a solid waste container.  
Dispose of properly. Clean up affected area. Avoid generation of dusts.

## 6.4 Reference to other sections

See Section 7 for information on safe handling.  
See section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid skin contact with hot material. For industrial or professional use only.  
Decomposition of FEP products above 230°C may evolve toxic gases and cause a polymer fume fever if inhaled. Processing temperature: < 400°C

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

Store in a cool, dry area, away from direct heat or sunlight.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## Section 8 : Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values:

There are no currently occupational exposure limit values established for this substance.

### 8.2 Exposure controls

#### Appropriate engineering controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

#### Personal protective equipment:

Eye and face protection: Safety Glasses with side shields.

Skin protection: Hand protection: Gloves in case of frequent contact with warm material.

Respiratory protection: Required when dusts are generated.

Half facepiece or fullface air-purifying respirator

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## Environmental exposure controls:

Do not allow material to be released to the environment without the proper governmental permits.

## Industrial hygiene:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance:	Granules, transparent
Colour:	Odorless
Odour:	Odourless
pH:	No data available.
Melting point:	250 - 280°C
Boiling point:	No data available.
Specific gravity:	2.1 - 2.2 at 23°
Partition coefficient (n -octanol/water):	No data available.
Solubility in water:	Insoluble in water.
Flash point:	No data available.
Flammability:	Not flammable.
Decomposition temperature:	No data available.
Explosive properties:	No data available.
Oxidising properties:	Non oxidizer.
Volatile:	Max. 0.3 %

### 9.2 Other information

No data available.

## Section 10: Stability and reactivity

### 10.1 Reactivity

Excellent thermal stability, excellent electrical insulation and chemical inertness. Low coefficient of friction, excellent resistance to atmospheric aging, resistance to gas (vapor) permeability and non-flammable.

### 10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

### 10.3 Possibility of hazardous reactions

Reacts with molten alkali metals and interhalogen compounds.  
Will burn in atmosphere of 95% oxygen when an ignition source is present.

### 10.4 Conditions to avoid

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Avoid exposure to open flame or temperatures exceeding recommended processing temperatures.

## 10.5 Incompatible materials

Alkali and alkaline earth metals. Reactions with metals in powder form occur from 370°C onwards.

## 10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide, hydrogen fluoride, perfluoroisobutylene, hexafluoropropylene, carbonyl fluoride, and tetrafluoroethylene. Initial decomposition begins at 380°C, and above 420°C significant decomposition occurs with the formation of decomposition products listed above.

## Section 11: Toxicological information

### 11.1 Toxicokinetics, metabolism and distribution

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### 11.2 Information on toxicological effects

#### Acute toxicity:

Quantitative data on the acute oral/inhalation/dermal toxicity of this product are not available.

#### Skin corrosion/irritation:

No skin corrosion/irritation classification.

#### Serious eye damage/irritation:

No serious eye damage/eye irritation classification.

#### Respiratory or skin sensitization:

No respiratory or skin sensitisation classification.

#### CMR effects (Carcinogenicity, Mutagenicity and Toxicity for Reproduction):

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

The substance is not classified as mutagens or toxic to reproduction.

#### STOT-single exposure and repeated exposure:

The substance is not classified as specific target organ toxicant, single exposure, repeated exposure.

#### Additional information:

No data available.

## Section 12: Ecological information

### 12.1 Toxicity

Quantitative data on the acute fish/daphnia/bacteria toxicity of this product are not available.

### 12.2 Persistence and degradability

The product is difficultly biodegradable.

### 12.3 Bioaccumulative potential

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No Bioaccumulative potential.

## 12.4 Mobility in soil

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

## 12.6 Other adverse effects

No data available.

## Section 13: Disposal considerations

### 13.1 Waste treatment methods

Usually is considered an inert packaging material that can be recycled or landfilled.  
Can be incinerated only if the HF effluent can be extracted from the flue gases.  
Observe all federal, state, and local environmental regulations.  
Contact a licensed professional waste disposal service to dispose of this material.

## Section 14: Transport information

### 14.1 Land transport (ADR/RID/GGVSE)

This product is not regulated as a hazardous material or dangerous goods for transportation.

### 14.2 Sea transport (IMDG-Code/GGVSee)

This product is not regulated as a hazardous material or dangerous goods for transportation.

### 14.3 Air transport (ICAO-TII/IATA-DGR)

This product is not regulated as a hazardous material or dangerous goods for transportation.

### 14.4 Additional information

No data available.

## Section 15: Regulatory information

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

EU regulation:

**Authorisations:** No information available.

**Restrictions on use:** No information available.

**EINECS:** CAS # 25067-11-2 is not listed in the inventory.

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<b>DSD (67/548/EEC):</b>	CAS # 359-35-3 and CAS # 116-15-4 are listed in the inventory. All the ingredients of the product are not listed in the Inventory.
<b>Other chemical regulation:</b>	
<b>USA - TSCA:</b>	All the ingredients of the product are listed in the Inventory.
<b>Canada - DSL/NDSL:</b>	CAS # 25067-11-2 is listed in the DSL inventory. CAS # 359-35-3 and CAS # 116-15-4 are listed in the NDSL inventory.
<b>Australia - AICS:</b>	CAS # 359-35-3 is not listed in the inventory.
<b>Korea - ECL:</b>	CAS # 25067-11-2 is listed in the inventory.
<b>Japan - ENCS:</b>	CAS # 25067-11-2 is listed in the inventory.
<b>China - IECSC:</b>	All the ingredients of the product are listed in the Inventory.

## 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

## Section 16: Other information

### 16.1 Revision Information:

Date of the previous revision: Not applicable.      Date of this revision: 28/12/2010.  
Revision summary: The first new SDS

### 16.2 Abbreviations and acronyms

<b>CLP:</b>	EU regulation (EC) No 1272/2008 on classification, labelling and packaging of chemical substances and mixtures.
<b>CAS:</b>	Chemical Abstracts Service (division of the American Chemical Society).
<b>EINECS:</b>	European Inventory of Existing Commercial Chemical Substances.
<b>IARC:</b>	International agency for research on cancer.
<b>RID:</b>	European Rail Transport.
<b>IMDG:</b>	International Maritime Code for Dangerous Goods.
<b>IATA:</b>	International Air Transport Association.
<b>DSD:</b>	Dangerous Substance Directive (67/548/EEC).
<b>TSCA:</b>	Toxic Substances Control Act, The American chemical inventory.
<b>DSL:</b>	Domestic Substances List, The Canadian chemical inventory.
<b>NDSL:</b>	Non-Domestic Substances List, The Canadian chemical inventory.
<b>AICS:</b>	The Australian Inventory of Chemical Substances.
<b>ECL:</b>	Existing Chemicals List, the Korean chemical inventory.
<b>ENCS:</b>	Japanese Existing and New Chemical Substances.
<b>IECSC:</b>	Inventory of existing chemical substances in China.

### 16.3 Training advice

Provide adequate information, instruction and training for operators.

### 16.4 Declare to reader



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----- End of the SDS -----