SAFETY DATA SHEET

According to the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Product Name: Everflon™ FEP 4608

Version: 1.0

Revision Date: 10/03/2026

SDS Number: EF-FEP-4608-001

SECTION 1. IDENTIFICATION

- **Product Name:** Everflon™ FEP 4608
- **CAS Number:** 25067-11-2
- **Chemical Name:** Poly(Hexafluoropropene / Tetrafluoroethylene)
- **Synonyms:** Fluorinated Ethylene Propylene Resin, FEP Resin

Manufacturer or Supplier's Details

- **Company Name:** Wuhan Everflon Fluoropolymers Co., Ltd.
- **Address:** Wuhan, Hubei Province, P.R. China
- **Telephone:** 0086-185-7168-9228
- **Emergency Telephone:** 0086-185-7168-9228 (Technical / Emergency Support)

Recommended Use of the Chemical and Restrictions on Use

- **Recommended Use:** Resin for moulding, extrusion, and wire & cable coating.
- **Restrictions on Use:** For industrial use only. Do not use in medical applications involving permanent implantation in the human body or contact with internal body fluids or tissues without prior written evaluation and agreement.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910.1200

- **Physical Hazards:** Not classified.
- **Health Hazards:** Not classified.
- **Environmental Hazards:** Not classified.

GHS Label Elements

- **Hazard Pictograms:** None required.
- **Signal Word:** None required.
- **Hazard Statements:** None required.
- **Precautionary Statements:** None required.

Other Hazards

- **Thermal Decomposition Hazard:** Processing at elevated temperatures may release decomposition fumes/vapors. Inhalation of fluoropolymer fumes may cause **polymer fume fever**, a temporary flu-like illness with chills, fever, cough, and body aches (symptoms usually develop within several hours after exposure and subside within 24–48 hours).
- Contamination of tobacco products with fluoropolymer dust or particles is a common source of exposure; do not smoke in processing areas.
- Molten polymer can cause severe thermal burns.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

- **Substance / Mixture:** Substance

Chemical Name	Common Name / Synonyms	CAS Number	Concentration (% w/w)
Poly(hexafluoropropylene-co-tetrafluoroethylene)	FEP fluororesin	25067-11-2	> 99.9%

Note: No hazardous ingredients are present above regulated OSHA reporting thresholds.

SECTION 4. FIRST AID MEASURES

- **If Inhaled:** If exposed to fumes from overheating or thermal decomposition, move victim immediately to fresh air. Seek medical attention if symptoms (coughing, dizziness, fever, or shortness of breath) occur or persist.
- **In Case of Skin Contact:** Normal handling of pellets poses no hazard. Wash with soap and water as a precaution.
  If contact with molten material occurs: Immediately flush skin with cold water or apply cold packs. **Do not** attempt to peel solidified polymer from the skin. Obtain immediate medical evaluation for thermal burns.
- **In Case of Eye Contact:** Flush eyes thoroughly with plenty of water as a precaution, including under the eyelids. If irritation or particulate abrasion develops and persists, seek medical attention.
- **If Swallowed:** If swallowed, do NOT induce vomiting. Rinse mouth thoroughly with water. Seek medical advice if symptoms occur.
- **Most Important Symptoms/Effects:** Polymer fume fever (flu-like symptoms, chills, fever, headache, muscle ache). Thermal burns from hot/molten resin.

- **Protection of First-Aiders:** No special precautions required for handling intact, room-temperature pellets.
- **Notes to Physician:** Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

- **Suitable Extinguishing Media:** Water spray, Alcohol-resistant foam, Carbon dioxide (CO_2), Dry chemical powder.
- **Unsuitable Extinguishing Media:** None known.
- **Specific Hazards During Fire Fighting:** Difficult to ignite. However, exposure to intense fire or thermal decomposition will yield hazardous and toxic degradation products, including:
  - Hydrogen fluoride (HF)
  - Carbonyl difluoride (COF_2)
  - Perfluoroisobutylene (PFIB)
  - Carbon monoxide (CO) and Carbon dioxide (CO_2)
  - Fine fluoropolymer particulates/aerosols
- **Specific Extinguishing Methods:** Use extinguishing measures appropriate to local circumstances and surrounding environment. Cool unopened containers with water spray. Evacuate the area.
- **Special Protective Equipment for Firefighters:** Wear full protective clothing and positive-pressure NIOSH-approved self-contained breathing apparatus (SCBA) to protect against toxic fluorinated decomposition products and acid gases.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- **Personal Precautions, Protective Equipment, and Emergency Procedures:** Spilled pellets represent a serious slip hazard. Sweep or clean up spills promptly. Follow safe handling advice and wear appropriate personal protective equipment (safety glasses, gloves).
- **Environmental Precautions:** Prevent entry into waterways, sewers, basements, or confined areas. Avoid discharge into the natural environment.
- **Methods and Materials for Containment and Cleaning Up:** Sweep, shovel, or vacuum spilled pellets into appropriate marked containers for recovery or disposal. Comply with federal, state, and local disposal regulations.

SECTION 7. HANDLING AND STORAGE

- **Advice on Safe Handling:**
  - Provide adequate general and local exhaust ventilation, especially at processing and extrusion zones where heating takes place.
  - Do not breathe decomposition vapors or fumes.
  - Do not smoke, eat, or drink while handling this product. Avoid contaminating tobacco products or smoking accessories with fluoropolymer resin/dust.

    - Wash hands thoroughly with soap and water before breaks, eating, or smoking.
- **Conditions for Safe Storage:** Store in original, tightly closed containers in a clean, cool, dry, and well-ventilated location. Protect from moisture and dust contamination.
- **Incompatible Materials:** Avoid contact with strong oxidizing agents, molten alkali metals, and finely divided metals at elevated temperatures.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Airborne Exposure Limits

- **Resin as Supplied:** Contains no hazardous substances with established OSHA PEL or ACGIH TLV values. Keep nuisance dust below:
    - OSHA PEL: 15mg/m³ (Total dust), 5mg/m³ (Respirable fraction).
    - ACGIH TLV: 10mg/m³ (Inhalable particulate), 3mg/m³ (Respirable particulate).

Decomposition Products (Airborne Limits upon Thermal Degradation)

Component	CAS Number	OSHA PEL	ACGIH TLV	NIOSH REL
Hydrogen Fluoride (HF)	7664-39-3	TWA: 3 ppm	TWA: 0.5 ppm; Ceiling: 2 ppm	TWA: 3 ppm; Ceiling: 6 ppm
Carbonyl Difluoride (COF_2 **)**	353-50-4	TWA: 2.5mg/m³	TWA: 2 ppm; STEL: 5 ppm	TWA: 2 ppm; STEL: 5 ppm
Carbon Monoxide (CO)	630-08-0	TWA: 50 ppm	TWA: 25 ppm	TWA: 35 ppm; Ceiling: 200 ppm
Carbon Dioxide (CO_2 **)**	124-38-9	TWA: 5000 ppm	TWA: 5000 ppm; STEL: 30,000 ppm	TWA: 5000 ppm; STEL: 30,000 ppm
Perfluoroisobutylene (PFIB)	382-21-8	None	Ceiling: 0.01 ppm	None

Engineering Measures

- Processing equipment must be equipped with local exhaust ventilation hoods designed to capture and vent decomposition gases to the outside.
- Ensure eyewash stations and safety showers are accessible near processing areas.

Personal Protective Equipment (PPE)

- **Eye/Face Protection:** Safety glasses with side shields (ANSI Z87.1 approved). Use full face shield when handling molten polymer.
- **Hand Protection:** Wear general protective gloves for handling pellets. Wear thermally insulated, heat-resistant gloves when dealing with molten material or hot machinery.
- **Skin and Body Protection:** Normal industrial work clothing. Wash skin after contact.
- **Respiratory Protection:** Not required under normal ambient handling. If processing exceeds thermal degradation thresholds or if local exhaust ventilation is insufficient, wear a NIOSH-approved air-purifying respirator fitted with organic vapor and acid gas cartridges combined with HEPA pre-filters, or a positive-pressure air-supplied respirator.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** Pellets / Granules
- **Color:** Translucent to white
- **Odor:** Odorless
- **Odor Threshold:** No data available
- **pH:** Not applicable
- **Melting Point / Range:** > 250 ℃ (> 482°F)
- **Boiling Point / Boiling Range:** Not applicable
- **Flash Point:** Not applicable
- **Evaporation Rate:** Not applicable
- **Flammability (solid, gas):** Not classified as flammable; will not support combustion under ambient conditions
- **Upper / Lower Explosion Limits:** Not applicable
- **Vapor Pressure:** Not applicable
- **Relative Vapor Density:** Not applicable
- **Density / Specific Gravity:** 2.10 - 2.20g/cm^3
- **Water Solubility:** Insoluble
- **Partition Coefficient (** n **-octanol/water):** No data available
- **Auto-ignition Temperature:** No data available

- **Decomposition Temperature:** > 300 ℃ (> 572°F)
- **Viscosity:** Not applicable
- **Explosive Properties:** Not explosive

SECTION 10. STABILITY AND REACTIVITY

- **Reactivity:** Non-reactive under standard ambient operating conditions.
- **Chemical Stability:** Stable under recommended storage and normal operating conditions.
- **Possibility of Hazardous Reactions:** Can react vigorously with strong oxidizing agents, fluorine, or molten alkali metals.
- **Conditions to Avoid:** Excessive heating above decomposition thresholds (> 300 ℃ / > 572°F).
- **Incompatible Materials:** Finely divided metals (e.g., aluminum, magnesium powders at high temperature), alkali metals, strong oxidizing agents.
- **Hazardous Decomposition Products:** Hydrogen fluoride, carbonyl difluoride, perfluoroisobutylene, carbon monoxide, carbon dioxide, and low-molecular-weight fluorinated oligomers.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

- Inhalation (thermal processing vapors/fumes)
- Skin contact
- Eye contact

Acute Toxicity

- **Oral / Dermal / Inhalation (pellets at ambient temperature):** Non-toxic. Not classified based on available data.
- **Decomposition Products:** Toxic by inhalation. Inhalation of thermal breakdown products causes polymer fume fever and irritation to the respiratory tract.

Health Effects & Hazards

- **Skin Corrosion / Irritation:** Essentially non-irritating to skin. Contact with hot molten polymer causes thermal burns.
- **Serious Eye Damage / Irritation:** Mechanical contact may cause mild ocular irritation or abrasion.
- **Skin / Respiratory Sensitization:** Not classified as a sensitizer.
- **Germ Cell Mutagenicity:** Not classified.
- **Carcinogenicity:**
    - **IARC:** No component of this product is identified as a probable, possible, or confirmed human carcinogen by IARC.
    - **NTP:** No component is listed as a known or anticipated carcinogen by NTP.

    - **OSHA:** No component is listed on OSHA's list of regulated carcinogens (29 CFR 1910 Subpart Z).
- **Reproductive Toxicity:** Not classified.
- **STOT - Single Exposure:** Not classified.
- **STOT - Repeated Exposure:** Not classified.
- **Aspiration Hazard:** Not applicable.

SECTION 12. ECOLOGICAL INFORMATION

- **Ecotoxicity:** No ecological damage is known or expected under normal usage conditions. Insoluble solid.
- **Persistence and Degradability:** Fluoropolymers are extremely persistent and non-biodegradable in the environment.
- **Bioaccumulative Potential:** Due to high molecular weight and insolubility, bioaccumulation is not expected.
- **Mobility in Soil:** Solid polymer pellets are immobile in soil.
- **Other Adverse Effects:** Spilled pellets can be ingested by wildlife; collect all spills promptly to prevent environmental entry.

SECTION 13. DISPOSAL CONSIDERATIONS

- **Waste Treatment Methods:**
  Recycling is strongly encouraged wherever technical facilities exist. Dispose of waste in accordance with applicable federal, state, and local environmental regulations.
- **Incineration:** If incinerated, a specialized high-temperature incinerator fitted with acid-gas scrubbers is required to remove toxic and acidic combustion products (e.g., HF).
- **Contaminated Packaging:** Empty packaging containers should be recycled or disposed of via approved waste management facilities.

SECTION 14. TRANSPORT INFORMATION

- **U.S. Department of Transportation (DOT - 49 CFR):** Not regulated as dangerous goods.
- **International Maritime Dangerous Goods (IMDG):** Not regulated as dangerous goods.
- **International Air Transport Association (IATA-DGR):** Not regulated as dangerous goods.
- **UN Number:** None assigned.
- **Proper Shipping Name:** Not applicable.
- **Hazard Class:** Not applicable.
- **Packing Group:** Not applicable.
- **Special Precautions for User:** Transport in clean, dry containers to prevent

moisture and particulate contamination.

SECTION 15. REGULATORY INFORMATION

United States Federal Regulations

- **TSCA (Toxic Substances Control Act):** All chemical components of this product are listed on the TSCA Chemical Substance Inventory (Active).
- **CERCLA Hazardous Substances (40 CFR 302.4):** None of the components have an established Reportable Quantity (RQ).
- **SARA Section 302 (Extremely Hazardous Substances - 40 CFR 355):** No chemicals in this material are subject to the reporting requirements.
- **SARA Section 311/312 Hazards:** No SARA hazards (non-hazardous solid under OSHA HCS 2012).
- **SARA Section 313 (Toxic Chemical Release Inventory - 40 CFR 372):** This material contains no chemical components subject to Section 313 reporting thresholds.

United States State Regulations

- **Pennsylvania Right-to-Know:**
  - Poly(hexafluoropropylene-co-tetrafluoroethylene) — CAS-No. 25067-11-2
- **New Jersey Right-to-Know:**
  - Poly(hexafluoropropylene-co-tetrafluoroethylene) — CAS-No. 25067-11-2
- **California Proposition 65:**
  Warning: This product is not manufactured with PFOA/PFOS; however, users should be aware that thermal degradation under high temperatures may generate trace byproducts such as carbon monoxide. *(Check state-specific warnings based on actual processing conditions: www.P65Warnings.ca.gov).*

SECTION 16. OTHER INFORMATION

Hazard Rating Systems

NFPA 704

- **Health:** 0
- **Flammability:** 1
- **Instability:** 0
- **Special Hazards:** None

HMIS™ IV

- **Health:** 0
- **Flammability:** 1
- **Physical Hazard:** 0
- **Personal Protection:** B (Safety glasses, gloves)

(0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe)

Abbreviations and Acronyms

- **ACGIH:** American Conference of Governmental Industrial Hygienists
- **CAS:** Chemical Abstracts Service
- **CFR:** Code of Federal Regulations
- **DOT:** Department of Transportation
- **GHS:** Globally Harmonized System of Classification and Labelling of Chemicals
- **IARC:** International Agency for Research on Cancer
- **NIOSH:** National Institute for Occupational Safety and Health
- **OSHA:** Occupational Safety and Health Administration
- **PEL:** Permissible Exposure Limit
- **REL:** Recommended Exposure Limit
- **STEL:** Short Term Exposure Limit
- **TLV:** Threshold Limit Value
- **TSCA:** Toxic Substances Control Act
- **TWA:** Time-Weighted Average

Disclaimer

The information provided in this Safety Data Sheet is accurate to the best of our knowledge, information, and belief at the date of publication. It is intended solely as guidance for the safe handling, use, processing, storage, transportation, and disposal of **Everflon™ FEP 4608**. This information does not constitute a warranty or quality specification. Users should determine the suitability of this material for their specific processing parameters and end-use applications.