SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and GHS

Everflon PTFE Dispersion D60

Version: 1.0 | **Revision Date:** 10/16/2026

SECTION 1. IDENTIFICATION

- **Product name:** Everflon PTFE Dispersion D60
- **Chemical family:** Aqueous fluoropolymer dispersion (Polytetrafluoroethylene)
- **Recommended use:** Coatings and industrial impregnating agent; for industrial use only.
- **Restrictions on use:** Do not use in medical applications involving implantation in the human body or direct contact with internal body fluids or tissues.

Manufacturer or supplier's details

- **Company name of supplier:** Wuhan Everflon Fluoropolymers Co.,Ltd.
- **Address:** Wuhan, Hubei, China
- **Telephone:** 0086-185-7168-9228
- **Emergency telephone:** 0086-185-7168-9228

SECTION 2. HAZARDS IDENTIFICATION

2.1 GHS classification in accordance with 29 CFR 1910.1200

- **Eye irritation:** Category 2A

2.2 GHS label elements

- **Hazard pictograms:**

- **Signal word:** Warning
- **Hazard statements:**
  - H319: Causes serious eye irritation.
- **Supplemental hazard statements:**
  - Corrosive to the respiratory tract (under thermal degradation).
- **Precautionary statements:**
  - **Prevention:**
    - P264: Wash skin thoroughly after handling.
    - P280: Wear eye protection and face protection.
  - **Response:**
    - P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
    - P337 + P313: If eye irritation persists: Get medical attention.

2.3 Other hazards

- **Polymer fume fever:** The thermal decomposition vapors of fluorinated plastics generated at elevated baking/sintering temperatures (>290 °C) may cause polymer fume fever with flu-like symptoms (chills, fever, cough, chest discomfort), especially when

smoking contaminated tobacco[cite: 37, 44].
- **Freezing risk:** Freezing irreversible damages the dispersion stability.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

- **Substance / Mixture:** Mixture

Chemical Name	CAS-No.	Concentration (% w/w)
Polytetrafluoroethylene (PTFE)	9002-84-0	~ 60 %
Water	7732-18-5	~ 34 - 37 %
2,6,8-Trimethyl-4-nonyloxypolyethyleneoxyethanol (Non-ionic Surfactant)[cite: 38, 47]	60828-78-6[cite: 38, 47]	1.0 - 5.0 %
Ammonium hydroxide	1336-21-6	< 0.2 %

SECTION 4. FIRST AID MEASURES

- **General advice:** In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt, seek medical advice.
- **If inhaled:** If inhaled, remove to fresh air. If symptoms occur (e.g., polymer fume fever from sintering vapors), get medical attention[cite: 38, 39].
- **In case of skin contact:** Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops. Wash clothing before reuse.
- **In case of eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes, holding eyelids open. If easy to do, remove contact lenses. Get immediate medical attention.
- **If swallowed:** If swallowed, **DO NOT induce vomiting**. Rinse mouth thoroughly with water. Get medical attention if symptoms occur.
- **Most important symptoms and effects:** Causes serious eye irritation. Inhalation of thermal fumes can cause polymer fume fever and respiratory tract irritation[cite: 37, 39].
- **Protection of first-aiders:** First aid responders should pay attention to self-protection and wear recommended personal protective equipment.
- **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.
- **Unsuitable extinguishing media:** None known.
- **Specific hazards during fire fighting:** The aqueous liquid product does not burn. After water evaporates, remaining dry polymer decomposes under intense heat (>400 °C), evolving toxic and corrosive gases:
  - Hydrogen fluoride (HF)
  - Carbonyl difluoride (COF_2)
  - Carbon monoxide (CO) and Carbon dioxide (CO_2)
  - Aerosolized particulates and fluorinated organic volatiles
- **Specific extinguishing methods:** Use water spray to cool unopened containers. Remove undamaged containers from fire area if safe to do so. Evacuate area.
- **Special protective equipment for fire-fighters:** In the event of fire, wear positive-pressure self-contained breathing apparatus (SCBA) and full protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment (safety goggles, impervious PVC gloves, boots)[cite: 40, 42]. Spilled dispersion liquid creates very slippery floors.
- **Environmental precautions:** Avoid release to the environment. Prevent spreading over wide areas and prevent entry into drains, surface water, or soil.
- **Methods and materials for containment and cleaning up:** Soak up with inert absorbent material (sand, silica gel, vermiculite). For large spills, provide diking to keep material from spreading. Pump into marked containers or clean up with suitable absorbent for disposal.

SECTION 7. HANDLING AND STORAGE

- **Technical measures & Ventilation:** Use only with adequate general ventilation and local forced exhaust, especially during heating, drying, and sintering (>260 °C)[cite: 40, 41, 42].
- **Advice on safe handling:**
  - Do not get in eyes. Avoid contact with skin or clothing.
  - Avoid inhalation of vapor, mist, or decomposition products.
  - Wash skin thoroughly after handling.
  - **Strictly NO smoking** in work areas to prevent tobacco contamination with fluoropolymer particles.
- **Conditions for safe storage:**
  - Store in properly labeled containers.
  - Recommended storage temperature: **45 – 75 °F (7 – 24 °C)**.
  - **DO NOT FREEZE.** Freezing coagulates the dispersion irreversibly.
  - Keep containers tightly closed when not in use.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Workplace control parameters

- The product as supplied contains no substances with established occupational exposure limit values.

8.2 Occupational exposure limits of thermal decomposition products

Component	CAS-No.	Value type	Control parameters / Permissible concentration	Basis
Hydrogen fluoride (HF)	7664-39-3	TWA	0.5 ppm (as F)	ACGIH
		C	2 ppm (as F)	ACGIH
		TWA	3 ppm	OSHA Z-2
		C	6 ppm / 5 mg/m³	NIOSH REL
Carbonyl difluoride (COF_2)	353-50-4	TWA	2 ppm	ACGIH
		STEL	5 ppm	ACGIH
		TWA	2 ppm / 5 mg/m³	NIOSH REL
		ST	5 ppm / 15 mg/m³	NIOSH REL
Carbon monoxide (CO)[cite: 41, 42]	630-08-0	TWA	25 ppm	ACGIH

		TWA	35 ppm / 40 mg/m³	NIOSH REL
		C	200 ppm / 229 mg/m³	NIOSH REL
		TWA	50 ppm / 55 mg/m³	OSHA Z-1
Carbon dioxide (CO_2)	124-38-9	TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH

8.3 Engineering measures

- Provide local exhaust ventilation at ovens, dryers, and sintering units where heating occurs[cite: 40, 42].

8.4 Personal protective equipment (PPE)

- **Respiratory protection:** Where general or local exhaust is insufficient or unknown, use NIOSH-approved respirators. Positive-pressure supplied-air respirators are required for thermal decomposition gases.
- **Hand protection:** PVC gloves (thickness > 0.6 mm, breakthrough time 480 min). Wash hands before breaks and at end of day.
- **Eye protection:** Wear chemical safety goggles.
- **Skin and body protection:** Impervious protective clothing (aprons, boots) to prevent skin contact.
- **Hygiene measures:** Ensure eyewash fountains and safety showers are available close to the workstation. Do not eat, drink, or smoke when using.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value / Description
Appearance	Liquid, aqueous dispersion
Color	Milky white
Odor	Slight ammoniacal

pH	9 – 11
Melting point/freezing point	32 °F (0 °C)
Initial boiling point	212 °F (100 °C)
Flash point	Does not flash
Flammability (solid, gas)	Not applicable
Density	1.4 – 1.7 g/cm^3 at 20 °C
Solubility in water	Dispersible
Partition coefficient: n-octanol/water	Not applicable
Autoignition temperature	No data available
Explosive properties	Not explosive
Oxidizing properties	Not classified as oxidizing

SECTION 10. STABILITY AND REACTIVITY

- **Reactivity:** Not classified as a reactivity hazard.
- **Chemical stability:** Stable under normal recommended storage conditions[cite: 41, 44].
- **Possibility of hazardous reactions:** Hazardous decomposition products will be formed at elevated baking temperatures (>290 °C).
- **Conditions to avoid:** Do not freeze (freezing destroys dispersion stability). Avoid excessive heat.
- **Incompatible materials:** None known under aqueous state. Reacts with strong molten alkali metals when dry and heated.
- **Hazardous decomposition products:** Hydrogen fluoride, Carbonyl difluoride, Carbon monoxide, Carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

- **Information on likely routes of exposure:** Inhalation, Skin contact, Eye contact, Ingestion.
- **Acute toxicity:** Not classified based on available information.

- Product Acute Oral Toxicity Estimate: > 5,000 mg/kg
- Component: *2,6,8-Trimethyl-4-nonyloxypolyethyleneoxyethanol* (CAS 60828-78-6):
  - Oral LD50 (Rat): 3,300 mg/kg
  - Dermal LD50 (Rabbit): > 5,000 mg/kg
- **Skin corrosion/irritation:** Not classified based on available data.
- **Serious eye damage/eye irritation: Causes serious eye irritation** (Category 2A)[cite: 37, 45].
- **Respiratory or skin sensitization:** Not classified.
- **Carcinogenicity:** Not classified.
  - **IARC, OSHA, NTP:** No ingredient present at ≥ 0.1% is identified as a carcinogen.
- **STOT-single exposure:** Corrosive to the respiratory tract if exposed to thermal degradation fumes[cite: 38, 45].
- **STOT-repeated exposure / Aspiration toxicity:** Not classified.

SECTION 12. ECOLOGICAL INFORMATION

- **Ecotoxicity:**
  - Component *2,6,8-Trimethyl-4-nonyloxypolyethyleneoxyethanol* (CAS 60828-78-6):
    - Toxicity to fish: LC50 (Pimephales promelas, 96 h) = 39 mg/l
    - Toxicity to daphnia: EC50 (Daphnia magna, 48 h) = 81.2 mg/l
- **Persistence and degradability:** Surfactant component is not readily biodegradable. PTFE fluoropolymer is non-biodegradable and highly persistent.
- **Bioaccumulative potential:** Low bioaccumulation potential.
- **Mobility in soil:** PTFE solids are immobile; aqueous carrier disperses in water.

SECTION 13. DISPOSAL CONSIDERATIONS

- **Waste from residues:** Dispose of in accordance with local, state, and national environmental regulations. Do not dispose of waste into sewer.
- **Contaminated packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

- **UNRTDG / US DOT (49 CFR):** Not regulated as a dangerous good.
- **IMDG-Code:** Not regulated as a dangerous good.
- **IATA-DGR:** Not regulated as a dangerous good.
- **Special transport precautions:** Protect from freezing (> 0 °C) during transit.

SECTION 15. REGULATORY INFORMATION

- **CERCLA / SARA 304:** Listed substances in the product are at low enough levels to not exceed the RQ.
- **SARA 302 EHS TPQ:** No components with a section 302 EHS TPQ.
- **SARA 311/312 Hazards:** Serious eye damage or eye irritation.
- **SARA 313:** This material does not contain chemical components exceeding threshold reporting levels.
- **TSCA:** All chemical substances in this product are listed or exempted on the TSCA

Inventory.

- **California Prop. 65:** WARNING: This product can expose you to chemicals including Acetaldehyde, which is known to the State of California to cause cancer, and Methanol, which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16. OTHER INFORMATION

Hazard Ratings

- **NFPA 704:** Health = 2, Flammability = 0, Instability = 0, Special hazard = None
- **HMIS IV:** Health = 2, Flammability = 0, Physical Hazard = 0

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. Material users should review the information in the specific context of their intended manner of handling, use, processing, and storage.