

**FEP Fluoroplastic resin**

Version 2.2

Revision Date 06/15/2015

Ref. 150000002330

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	: FEP Fluoroplastic resin
Tradename/Synonym	: Poly(Hexafluoropropene/Tetrafluoroethylene)
Product Grade/Type	: TE9820, TE9831, TE9828, TE9835 TE9495, TE9290, TE9469, TE9475, TE9486, TE9491, TE9808, TE9817, TE9818, 100, 100-J, 100-N, 106-N, 130-J, 140-J, 160-N, 5100-J, 6100, 6100-J, TE9302-N, TE9481-N, TE9497, G1, G3, G7, CJ95, CJ99, TE9494, TE9494-J, CJ95, CJ99, CJ 95 X, CJ 99 X, 9302 X, FPD 9852, FPD9848, FPD9849, FEP 100 X, FEP 106 X, FEP 8787, FEP 9290-J, FEP 9861X, FEP 9898 TE9298, TE9290, TE9302-N, TE9469, TE9475, 9475 X, TE9486, TE9491, TE9494, 9494 X, TE9495, 9495 X, TE9497, TE9808, TE9817, TE9818, TE9820, TE9821, TE9823, TE9824, TE9828, TE9831, TE9832, TE9835, 9835 X, TE9837, TE9838, TE9839, TE9845, TE9846, TE9854, and TE9856
Product Use	: Resin for moulding and/or extrusion, For industrial use only.
Restrictions on use	: Do not use in medical applications involving permanent implantation in the human body., See Section 16
Manufacturer/Supplier	: DuPont 1007 Market Street Wilmington, DE 19898 United States of America
Product Information	: 1-800-441-7515 (outside the U.S. 1-302-774-1000)
Medical Emergency	: 1-800-441-3637 (outside the U.S. 1-302-774-1139)
Transport Emergency	: CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION



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Not classified as a hazardous substance or mixture according to the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard 2012.

Other hazards

The thermal decomposition vapours of fluorinated plastics may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

SECTION 4. FIRST AID MEASURES

General advice	: No applicable data available.
Inhalation	: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. Consult a physician.
Skin contact	: No hazards which require special first aid measures. Wash off with soap and water. Cool skin rapidly with cold water after contact with molten material. Do not peel polymer from the skin. Consult a physician.
Eye contact	: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Get medical attention immediately.
Ingestion	: Not a probable route of exposure. However, in case of accidental ingestion, call a physician.
Most important symptoms/effects, acute and delayed	: No applicable data available.
Protection of first-aiders	: If potential for exposure exists refer to Section 8 for specific personal protective equipment.

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Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURESSuitable extinguishing media : Carbon dioxide (CO₂), Dry powder, Foam, Water

Unsuitable extinguishing media : No applicable data available.

Specific hazards : Hazardous thermal decomposition products:
acid fluorides
Fluorinated compounds
Hydrogen fluoride
Carbon monoxide

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Wear suitable protective equipment. Wear neoprene gloves during cleaning up work after a fire.

Further information : Protect from hydrogen fluoride fumes which react with water to form hydrofluoric acid.

SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel) : Ventilate the area. Material can create slippery conditions. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : No special environmental precautions required.

Spill Cleanup : Sweep up and shovel into suitable containers for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations.

Accidental Release Measures : No applicable data available.



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SECTION 7. HANDLING AND STORAGE

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| Handling (Personnel) | : | For personal protection see section 8. Protect from contamination. When opening containers, avoid breathing vapours that may be emanating. Avoid breathing dust. Avoid contamination of cigarettes or tobacco with dust from this material. Provide appropriate exhaust ventilation at dryers, machinery and at places where dust or volatiles can be generated. In case of insufficient ventilation, wear suitable respiratory equipment. Do not use a torch to clean this material from equipment without local exhaust ventilation and respirator. Wash hands and face before breaks and immediately after handling the product. Do not contaminate tobacco products. |
| Handling (Physical Aspects) | : | No applicable data available. |
| Dust explosion class | : | No applicable data available. |
| Storage | : | Keep container tightly closed in a dry and well-ventilated place. Protect from contamination.
Stable under recommended storage conditions. |
| Storage period | : | No applicable data available. |
| Storage temperature | : | No applicable data available. |

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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| Engineering controls | : | Ensure adequate ventilation, especially in confined areas. Good general ventilation should be provided to keep dust concentrations below the exposure limits. Local exhaust ventilation should be employed to minimize airborne contamination. |
| Personal protective equipment | | |
| Respiratory protection | : | When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. |
| Hand protection | : | Additional protection: Protective gloves (Type : Kevlar® - heat resistant, use possible until worn out) |
| Eye protection | : | Safety glasses with side-shields |
| Skin and body protection | : | If there is a potential for contact with hot/molten material wear heat resistant clothing and footwear.
Regular cleaning of equipment, work area and clothing. |

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**Exposure Guidelines
Exposure Limit Values**

This product does not contain any exposure limits that require disclosure according to OSHA Hazard Communication Standard 2012.

Non-Constituent(s)

Dust (inhalable and respirable fraction)			
Permissible exposure limit:	(OSHA)	5 mg/m ³	8 hr. TWA Respirable fraction.
Permissible exposure limit:	(OSHA)	15 mg/m ³	8 hr. TWA Total dust.
TLV	(ACGIH)	3 mg/m ³	TWA Respirable particles.
TLV	(ACGIH)	10 mg/m ³	TWA Inhalable particles.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Physical state : solid
Form : pellets
Color : white, translucent

Odor : none

Odor threshold : No applicable data available.

pH : No applicable data available.

Melting point/freezing point : Melting point/range
257 - 263 °C (495 - 505 °F)

Boiling point/boiling range : No applicable data available.

Flash point : Difficult to ignite, and flame goes out when initiating source is removed.

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Evaporation rate	: No applicable data available.
Flammability (solid, gas)	: No applicable data available.
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour Pressure	: No applicable data available.
Vapour density	: No applicable data available.
Density	: 2.1 - 2.2 g/cm ³
Specific gravity (Relative density)	: No applicable data available.
Water solubility	: insoluble
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: No applicable data available.
Auto-ignition temperature	: 520 - 560 °C
Ignition temperature	: 530 - 550 °C
Decomposition temperature	: No applicable data available.
Viscosity, kinematic	: No applicable data available.
Viscosity, dynamic	: No applicable data available.
% Volatile	: 0 %
Limiting oxygen index	: > 95 %

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: Stable under normal conditions.

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Possibility of hazardous reactions	:	During drying, cleaning and moulding, small amounts of hazardous gases and/or particulate matter may be released. These may irritate eyes, nose and throat. Large molten masses may give off hazardous gases.
Conditions to avoid	:	To avoid thermal decomposition, do not overheat. Abnormally long processing time or high temperatures can produce irritating and toxic fumes. Stable under normal conditions.
Incompatible materials	:	Powdered metals Finely divided aluminium, potent oxidizers like fluorine (F ₂), and, related compounds
Hazardous decomposition products	:	Hazardous thermal decomposition products: Hydrogen fluoride, Carbonyl fluoride, Perfluoroisobutylene

SECTION 11. TOXICOLOGICAL INFORMATION

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Further information : The product contains no substances classified as hazardous to health in concentrations which should be taken into account.

Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

SECTION 12. ECOLOGICAL INFORMATION

Additional ecological information : The product contains no substances classified as hazardous to the environment in concentrations which should be taken into account.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods - Product : Like most thermoplastic plastics the product can be recycled. If recycling is not practicable, dispose of in compliance with local regulations. Incinerate only if incinerator is capable of scrubbing out hydrogen fluoride and other

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acidic combustion products.

Waste disposal methods - Container : Remove labels and thoroughly clean containers prior to recycling or reuse.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA : On the inventory, or in compliance with the inventory

SARA 313 Regulated Chemical(s) : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65 : WARNING! This product contains a chemical known to the State of California to cause cancer. Tetrafluoroethylene

SECTION 16. OTHER INFORMATION

NFPA

Health : 2

Flammability : 1

Reactivity/Physical hazard : 0

Restrictions for use : Do not use DuPont materials in medical applications involving implantation



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in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative. You may also request a copy of the DuPont POLICY Regarding Medical Applications and DuPont CAUTION Regarding Medical Applications.

The DuPont Oval Logo is a registered trademark of E.I. du Pont de Nemours and Company. Before use also read the following bulletin(s): Fluoropolymer Safe Handling Guide published by the Society of the Plastics Industry.

Revision Date : 06/15/2015

Contact person : MSDS Coordinator, DuPont Chemicals and Fluoroproducts, Wilmington, DE 19898, (800) 441-7515

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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