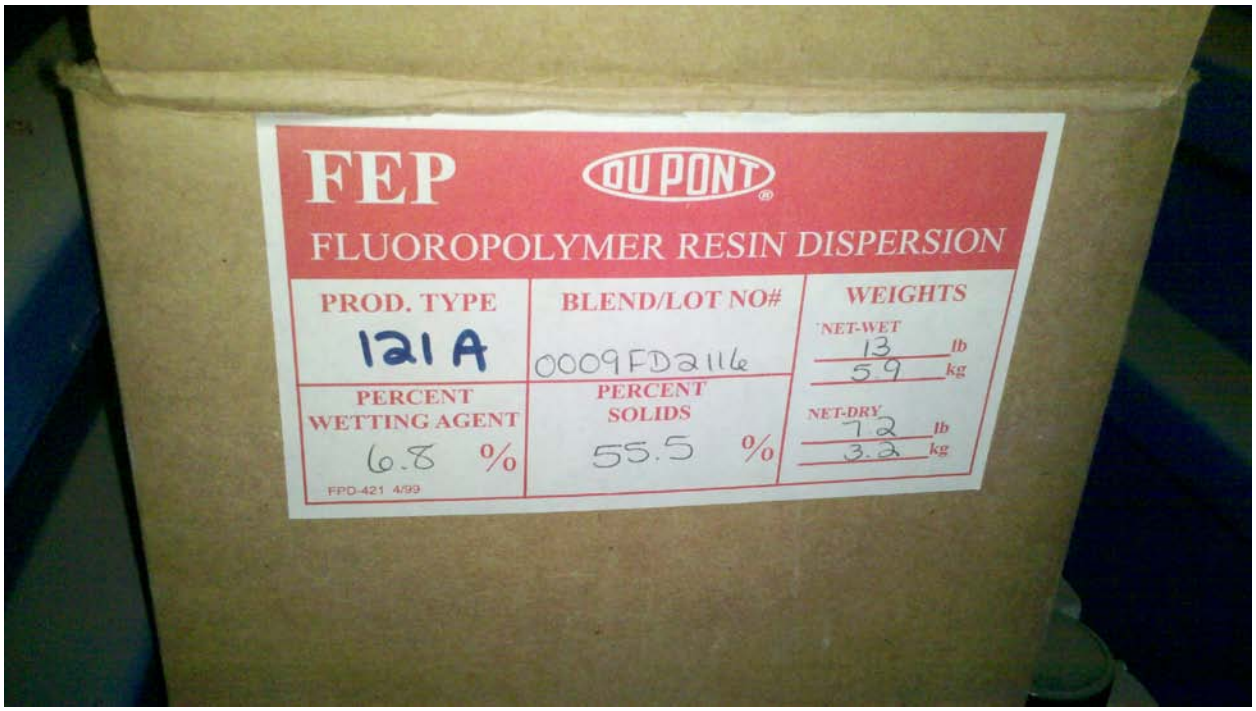

Chemical Name: FEP Fluoropolymer Resin Dispersion

Manufacturer: Du Pont

Container size: 13lb.

Location: VLA

Disposal: Place empty container in trash. Give partial or full container to safety officer.

Material Safety Data Sheet

FEP Fluoropolymer Resin

Version 3.0

Revision Date 06/22/2012 Ref. 150000002335

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 Fluoropolymer Resin
Tradename/Synonym	:	6100-FL, TE9050, TE9468F, TE9484FL, 5101, TE9304, TE9834FL, TE9819 TE9844FL
MSDS Number	:	150000002335
Product Use	:	Plastic material for further processing
Manufacturer	:	DuPont 1007 Market Street Wilmington, DE 19898
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

Emergency Overview

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

Potential Health Effects

Skin

Hexafluoropropene/Tetrafluoroethylene copolymer	:	Dust may cause: Discomfort, itching, redness, or swelling.

Eyes

Hexafluoropropene/Tetrafluoroethylene copolymer	:	Dust may cause: tearing, Redness, Discomfort.

Inhalation

Hexafluoropropene/Tetrafluoroethylene copolymer	:	Dust may cause: Respiratory tract irritation The thermal decomposition vapours of fluorinated polymers may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco. Symptoms usually appear after several hours and resolve within 1 to 2 days. Repeated episodes of polymer fume fever may result in persistent lung effects. Polymer may extensively decompose if severely overheated or burned. Inhalation of fluorinated decomposition products may cause lung irritation and pulmonary oedema. Symptoms may be delayed for several hours. Symptoms may be severe or life-threatening.

Carcinogenicity

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 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Hexafluoropropene/Tetrafluoroethylene copolymer	25067-11-2	100 %

SECTION 4. FIRST AID MEASURES

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.

Inhalation	:	Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. Consult a physician.
Ingestion	:	Not a probable route of exposure. However, in case of accidental ingestion, call a physician.

SECTION 5. FIREFIGHTING MEASURES

Flammable Properties

Flash point	:	Difficult to ignite, and flame goes out when initiating source is removed.
Ignition temperature	:	530 - 550 °C (986 - 1,022 °F)
Autoignition temperature	:	520 - 560 °C (968 - 1,040 °F)
Lower explosion limit	:	not applicable
Upper explosion limit	:	not applicable

Fire and Explosion Hazard	:	Hazardous thermal decomposition products: acid fluorides Fluorinated compounds Hydrogen fluoride Carbon monoxide
Suitable extinguishing media	:	Carbon dioxide (CO_2), Dry powder, Foam, Water
Firefighting Instructions	:	In the event of fire, wear self-contained breathing apparatus. Wear suitable protective equipment. Wear neoprene gloves during cleaning up work after a fire. 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. Refer to protective measures listed in sections 7 and 8. Material can create slippery conditions.
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 special environmental precautions required.

SECTION 7. HANDLING AND STORAGE

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. Regular cleaning of equipment, work area and clothing. Wash hands and face before breaks and immediately after handling the product. Do not contaminate tobacco products. General precaution for all plastics and elastomers: Do not breathe fumes evolved from hot polymer.
Storage	:	Keep container tightly closed in a dry and well-ventilated place. Protect from contamination. Stable under recommended storage conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

Exposure Guidelines

Exposure Limit Values

FEP Fluoropolymer Resin

Dust (inhalable and respirable fraction)

TLV	(ACGIH)	10 mg/m3 TWA Inhalable particles. 3 mg/m3 TWA Respirable particles.
PEL:	(OSHA)	5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust.

Poly(Hexafluoropropene/Tetrafluoroethylene)

AEL *	(DUPONT)	10 mg/m3	8 & 12 hr. TWA	Total dust.
AEL *	(DUPONT)	5 mg/m3	8 & 12 hr. TWA	Respirable dust.

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

FEP Fluoropolymer Resin

Version 3.0

Revision Date 06/22/2012 Ref. 150000002335

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	powder
Color	:	white
Odor	:	none
Melting point/range	:	257 - 263 °C (495 - 505 °F)
% Volatile	:	0 %
Density	:	2.1 - 2.2 g/cm3
Water solubility	:	insoluble
Limiting oxygen index	:	> 95 %

SECTION 10. STABILITY AND REACTIVITY

Stability	:	Stable under normal conditions.
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.
Incompatibility	:	Powdered metals Finely divided aluminium, potent oxidizers like fluorine (F2), and, related compounds
Hazardous decomposition products	:	Hazardous thermal decomposition products:: Hydrogen fluoride, Carbonyl fluoride , Perfluoroisobutylene
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.

SECTION 11. TOXICOLOGICAL INFORMATION

Hexafluoropropene/Tetrafluoroethylene copolymer

Inhalation 4 h LC50	:	> 8 mg/l , rat
Repeated dose toxicity	:	Oral rat

No toxicologically significant effects were found.

Inhalation
rat

No toxicologically significant effects were found.

Further information : The substance is a polymer and is not expected to produce toxic effects.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity
Hexafluoropropene/Tetrafluoroethylene copolymer
: The substance is a polymer and is not expected to produce toxic effects.

Additional ecological information : This product has no known eco-toxicological effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal : 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 acidic combustion products.

Container Disposal : Remove labels and thoroughly clean containers prior to recycling or reuse.

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

SECTION 14. TRANSPORT INFORMATION

FEP Fluoropolymer Resin

Version 3.0

Revision Date 06/22/2012 Ref. 150000002335

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA Status	:	On the inventory, or in compliance with the inventory
SARA 313 Regulated Chemical(s)	:	SARA 313: 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 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 H-50103-3 and DuPont CAUTION Regarding Medical Applications H-50102-3.

Before use also read the following bulletin(s): Fluoropolymer Safe Handling Guide published by the Society of the Plastics Industry.

FEP Fluoropolymer Resin

Version 3.0

Revision Date 06/22/2012 Ref. 150000002335

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.

Significant change from previous version is denoted with a double bar.