

**Zonyl™ PTFE Fluoroadditives**

Version 6.0

Revision Date 11/02/2016

Ref. 150000002333

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	:	Zonyl™ PTFE Fluoroadditives
Tradename/Synonym	:	PTFE
Product Grade/Type	:	MP1000, MP1100, MP1200, MP1300, MP1400, MP1400F, MP1600, TLP-6, TE3608, TE3808, TE3950, TE3959, TE5069A-N, TE6386, TE6392, and TE6393
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	:	The Chemours Company FC, LLC 1007 Market Street Wilmington, DE 19899 United States of America
Product Information	:	1-844-773-CHEM (outside the U.S. 1-302-773-1000)
Medical Emergency	:	1-866-595-1473 (outside the U.S. 1-302-773-2000)
Transport Emergency	:	CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION

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

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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.

Non-hazardous ingredients

Polytetrafluoroethylene	9002-84-0	100 %
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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.



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Most important symptoms/effects, acute and delayed : Polymer fume fever

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing

Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO2), Dry powder, Foam, Water

Unsuitable extinguishing media : No applicable data available.

Specific hazards : Difficult to ignite, and flame goes out when initiating source is removed.
 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.



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- Safeguards (Personnel) : Ventilate the area. Refer to protective measures listed in sections 7 and 8. Material can create slippery conditions.
- 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 : For disposal considerations see section 13.

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. In case of insufficient ventilation, wear suitable respiratory equipment. Provide appropriate exhaust ventilation at dryers, machinery and at places where dust or volatiles can be generated. 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.
- Handling (Physical Aspects) : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).
- 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.



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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.
Regular cleaning of equipment, work area and clothing.

Exposure Guidelines

Exposure Limit Values

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

Polytetrafluoroethylene
No applicable data available.

Non-Constituent(s)

Dust (inhalable and respirable fraction)

Permissible exposure limit:	(OSHA)	5 mg/m3	8 hr. TWA	Respirable fraction.
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Permissible exposure limit:	(OSHA)	15 mg/m3	8 hr. TWA	Total dust.
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exposure limit:

TLV	(ACGIH)	3 mg/m3	TWA	Respirable particles.
TLV	(ACGIH)	10 mg/m3	TWA	Inhalable particles.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : solid
Form : powder
Color : white

Odor : odourless

Odor threshold : No applicable data available.

pH : Not applicable

Melting point/freezing point : Melting point/range
325 - 342 °C (617 - 648 °F)

Boiling point/boiling range : No applicable data available.

Flash point : Not applicable

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.

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Density	: 2.1 - 2.3 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	: The product is chemically stable. Stable under normal conditions.
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.



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Stable under normal conditions.

Incompatible materials : Finely divided aluminium Powdered metals, potent oxidizers like fluorine (F₂), and, related compounds, Contact with incompatible materials can cause fire and explosion.

Hazardous decomposition products : Hazardous thermal decomposition products:: Hydrogen fluoride, Carbonyl fluoride, acid fluorides

SECTION 11. TOXICOLOGICAL INFORMATION

- Zonyl™ PTFE Fluoroadditives
Further information : The product contains no substances classified as hazardous to health in concentrations which should be taken into account.
- Polytetrafluoroethylene
Inhalation : The thermal decomposition vapours of fluorinated plastics may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco.
- Oral LD50 : > 11,280 mg/kg , Rat
- Skin irritation : No skin irritation, Rabbit
No skin irritation, human
- Skin sensitization : Does not cause skin sensitisation., human
Patch test on human volunteers did not demonstrate sensitisation properties.
- Repeated dose toxicity : Oral - feed
Rat
-
No toxicologically significant effects were found.
- Carcinogenicity : Not classifiable as a human carcinogen.
- Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

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Reproductive toxicity : No toxicity to reproduction

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**Aquatic Toxicity**

Polytetrafluoroethylene

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

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 CONSIDERATIONSWaste 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 acidic combustion products.

Contaminated packaging

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



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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.
PA Right to Know Regulated Chemical(s)	: Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Polytetrafluoroethylene
California Prop. 65	: WARNING! This product contains a chemical or chemicals known to the State of California to cause cancer. Tetrafluoroethylene

SECTION 16. OTHER INFORMATION

Restrictions for use : Do not use or resell Chemours™ materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless agreed to by Seller in a written agreement covering such use. For further information, please contact your Chemours representative.

Zonyl™ and any associated logos are trademarks or copyrights of The Chemours Company FC, LLC. Chemours™ and the Chemours Logo are trademarks of The Chemours Company. Before use also read the following bulletin(s): Fluoropolymer Safe Handling Guide published by the Society of the



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Plastics Industry. For further information contact the local Chemours office or nominated distributors.

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