

MATERIAL SAFETY DATA SHEET

MSDS DATE: JANUARY 30th 2012
NAME OF PRODUCT: PTFE - CARBON/GRAPHITE FILLED

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: MOLDED PTFE - CARBON/GRAPHITE FILLED
SYNONYMS: NONE
PRODUCT CODES: 8534 PRODUCT GROUP
MANUFACTURER: TECHNETHICS GROUP HOUSTON
DIVISION: PLASTOMER TECHNOLOGIES
ADDRESS: 10633 WEST LITTLE YORK S-300, 77041 HOUSTON, TX.
PRODUCT INFORMATION: 713-983-4261
SAFETY INFORMATION: 713-983-4235

CHEMICAL NAME: POLYTETRAFLUOROETHYLENE
CHEMICAL FAMILY: PTFE PRODUCTS
CHEMICAL FORMULA: $(C_2F_4)_n$
CAS number: 9002-84-0
IUPAC NAME: Poly (di-fluoro methylene)
PREPARED BY: ENGINEERING MANAGER

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS-NO	WEIGHT %	ACGIH TLV	OSHA PEL	CEILING LIMIT
PTFE	009002-84-0	90.0 – 99.8	NONE	NONE	NONE
CARBON BLACK	064746-05-1	0.1 – 5.0	NONE	3.5 mg/m ³ TWA	NONE
GRAPHITE	007782-42-5	0.1 – 5.0	2 mg/m ³	2.5 mg/m ³ TWA	NONE

SECTION 3: HAZARDS IDENTIFICATION

NFPA RATING: Health: 2, Flammability: 1, Reactivity: 0
HMIS CLASIFICATION: Health: 2, Flammability: 1, Reactivity: 0
EMERGENCY OVERVIEW: Dust from this product may be harmful if inhaled. High-heat processing may liberate toxic gases. See sections 4, 5 and 10 for more information on thermal decomposition products.

POTENTIAL HEALTH EFFECTS:

INHALATION: High concentrations of airborne dust may cause irritation to the respiratory tract
INGESTION: Ingestion may cause irritation to the gastrointestinal tract
EYE CONTACT: May cause irritation to the eyes due to mechanical abrasion of particles
SKIN CONTACT: Generally does not cause skin irritation

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known

SECTION 4: FIRST AID MEASURES

INHALATION: Move to fresh air and monitor for symptoms, if cough or irritation develops, give a glass of water. Never give anything by mouth to an unconscious person. If symptoms persist seek medical attention.
SKIN CONTACT: Wash material from the skin with plenty of soap and water.
EYE CONTACT: Flush eyes with plenty of water while holding eyelids open.
INGESTION: If person is conscious, rinse mouth with water; never give anything by mouth to an unconscious person.
NOTES TO PHYSICIAN: High heat processing of this product liberates thermal decomposition gases, which when inhaled can result in polymer fume fever. This condition is characterized by influenza type symptoms (fever, cough and malaise), which usually occurs within a few hours and resolves within 48 hours. Following severe exposure the patient should be kept under medical surveillance for at least 48 hours since delayed pulmonary edema may develop.

MATERIAL SAFETY DATA SHEET

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:

Use media suitable for surrounding fire. Product does not support combustion or flame

UNSUITABLE EXTINGUISH MEDIA/METHODS: None

HAZARDOUS COMBUSTION PRODUCT OR GASES:

Decomposition of this product at temperature above 300deg.C (572deg.F) can form hydrogen fluoride (HF), but HF will only accumulate with continuous exposure to excess heat in a sealed vessel.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS:

Self-contained breathing apparatus (SCBA) is required.

SECTION 6: ACCIDENTAL RELEASE MEASURES

CONTAINMENT TECHNIQUES:

Restrict area where spill occurred. Tarp spilled material if outdoors to prevent wind dispersion until clean up can occur.

ENVIRONMENTAL PROTECTION:

No special environmental precautions required.

METHODS FOR CLEANING UP:

Refer to Section 8 for exposure controls. Restrict area. Ensure adequate ventilation. Gently sweep or vacuum spilled material and collect for disposal. Mop or wipe residual from surface using water.

SECTION 7: HANDLING AND STORAGE

SAFE HANDLING PRECAUTIONS:

Avoid creating dust and heating above 260°C (PTFE).

If these conditions cannot be avoided, use adequate ventilation to capture dust or decomposition products at the source.

SAFE STORAGE CONDITIONS:

Keep containers and product tightly closed in a cool, well-ventilated place.

INCOMPATIBLE PRODUCTS:

None known

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Provide local exhaust ventilation in your process to capture dust or thermal decomposition gases at their source. Refer to the ACGIH Guide to Industrial Ventilation for design assistance.

HAND PROTECTION:

Rubber gloves

EYE PROTECTION:

Wear tightly-fitting safety goggles in a dusty environment.

HYGIENE MEASURES:

Avoid contact with skin, eyes and personal clothing. Do not contaminate tobacco products. Wash hands thoroughly before eating.

EXPOSURE LIMIT:

Particulates (Not Otherwise Regulated) with the following generic exposure limits: OSHA PEL: 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction)

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION:

Wear a NIOSH approved air-purifying respirator when needed to maintain dust exposures below the limits found in Section-2. Series-100 or HEPA filters are recommended. NOTE: A supplied-air respirator or self-contained breathing apparatus (SCBA) must be used to protect against thermal decomposition products.

SKIN AND BODY PROTECTION: Wear full-length work clothes

MATERIAL SAFETY DATA SHEET

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Articles in different shapes	PHYSICAL STATE:	Solid
COLOR:		ODOR:	Not Applicable
FLASH POINT:	Not Applicable	BOILING POINT:	Not Applicable
MELTING POINT:	Not Applicable	VAPOR PRESSURE:	Not Applicable
VAPOR DENSITY:	Not Applicable	SPECIFIC GRAVITY:	2.0 – 2.2 g/cc @ 25 deg C
SOLUBILITY:	Insoluble in all common solvents		

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Decomposes in open air on in nitrogen above 400 °C
CONDITIONS TO AVOID:	To avoid thermal decomposition, do not overheat.
MATERIALS TO AVOID:	Reacts with molten alkali metals and finely divided magnesium and aluminum at temperatures above 425 Deg. C

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition (at temperatures above 300C.) will generate hydrogen fluoride, which is corrosive.

POLYMERIZATION: None under normal processing

SECTION 11: TOXICOLOGICAL INFORMATION

CARCINOGENIC EFFECTS:	Tetrafluoroethylene is known to the state of California to cause cancer
MUTAGENIC EFFECTS:	No data is available on the product itself.
REPRODUCTIVE TOXICITY:	No data is available on the product itself

SECTION 12: ECOLOGICAL INFORMATION

MOBILITY:	The product is insoluble and sinks in water.
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SECTION 13: DISPOSAL CONSIDERATIONS

WASTE FROM RESIDUES / UNUSED PRODUCTS:

Dispose of in accordance with federal, state and local regulations. This product is not a hazardous waste under RCRA, 40 CFR 261 in its original form. If this product is mixed with other materials and/or physically changed, it should be evaluated to assure that the resulting mixture/material does not meet the criteria for listing hazardous waste as specified in 40 CFR 261.11.

CONTAMINATED PACKAGING:

Empty containers should not be used for materials other than the original product. A qualified drum management or solid waste disposal contractor should be used to assure proper handling of empty containers.

SECTION 14: TRANSPORT INFORMATION

U.S. Department of Transportation DOT - Substances From 49 CFR 172.101

DOT Classification:	Not regulated
Air transport ICAO/IATA Status:	Not regulated
DOT Classification:	Not regulated

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

CALIFORNIA – PROP 65 REGULATIONS:	Not Listed
TSCA (TOXIC SUBSTANCE CONTROL ACT):	Not Listed
CIS (CHEMICAL INVENTORY STATUS):	LISTED
CAAR (CLEAN AIR ACT REGULATIONS):	
ACCIDENTAL RELEASE PREVENTION FLAMMABLE SUBSTANCES:	Not Listed
ACCIDENTAL RELEASE PREVENTION TOXIC SUBSTANCES:	Not Listed
1990 HAZARDOUS AIR POLLUTANTS:	Not Listed
SECTION 302 EHS & TPQ's:	Not Listed
SECTION 302 HAZARDOUS SUBSTANCES:	Not Listed
SECTION 313 EMISSION REPORTING:	Not Listed
TSCA & CERCLA/SARA REGULATIONS:	Not Classified

NOTES:

- This product complies with EU RoHS
- This product does not have components listed in GADSL (Global Automotive Declarable Substance List)
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Warning: Substances known to the State of California to cause Cancer, birth defects or other reproductive harm: Tetrafluoroethylene

SECTION 16: OTHER INFORMATION

This data sheet contains changes from the previous version in section(s): None

Additional advice: Consult your supplier if the material is to be used for special applications such as in the food industry or for hygiene, medical or surgical end-use.

Prepared by: Technetics Group Houston

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