

SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: VESTAKEEP® 4000 FC30

Other means of identification

None.

Recommended restrictions

Recommended use: injection molding extrusion

Restrictions on use: Not determined.

Manufacturer/Importer/Distributor Information

Company Name : Evonik Corporation
2 Turner Place
Piscataway, NJ 08854
USA

Telephone : +1 732 981 5000

E-mail : product-regulatory-services@evonik.com

Emergency telephone number:

24-Hour Health : +1 800 424 9300 (CHEMTREC - US & CANADA)

Emergency 800 681 9531 (CHEMTREC MEXICO)

+1 703 527 3887 (CHEMTREC WORLD)

2. Hazard(s) identification

Hazard Classification

Not classified

Label Elements

Hazard Symbol: No symbol

Signal Word: No signal word.

Hazard Statement: Not applicable

Precautionary Statements

Hazard(s) not otherwise classified (HNOC):

Dust can occur through abrasion if the granulate is subjected to mechanical loading.

3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Graphite		7782-42-5	<=10%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition Comments: Polyetherether ketones

Composition Comments: This sheet describes a group of products. It only contains safety-relevant data. For specific data, see Product Information sheet.

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

General information: Pay attention to self-protection. Move out of dangerous area. Keep warm, position comfortably, and cover well. Do not leave affected persons unattended.

Inhalation: In case of symptoms of irritation caused by vapours in thermal processing: Provide fresh air, seek medical advice if necessary. Following inhalation of product dust: See that there is fresh air.

Skin Contact: Cool melted product on skin with plenty of water. Do not remove solidified product. In case of burns by molten product medical treatment is necessary.

Eye contact: Rinse with plenty of water.

Ingestion: Not applicable; not an expected route of exposure.

Personal Protection for First-aid Responders: In the event of fire, wear self-contained breathing apparatus.

Most important symptoms/effects, acute and delayed

Symptoms: No experiences of acute or chronic damages in humans have been made as yet.

Hazards: Risk of skin burns caused by hot melt.

Indication of immediate medical attention and special treatment needed

Treatment: Continue with first aid measures. Depending on the pathology and clinical findings, patient monitoring and symptomatic treatment are necessary.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media: high volume water jet

Specific hazards arising from the chemical: Hazard-determining flue gases might develop in case of fire: Carbon Dioxide. Carbon Monoxide. Hydrogen fluoride. Carbonyl fluoride. Tetrafluoroethylene Hexafluoropropylene Perfluoroisobutylene Under certain fire conditions, traces of other toxic products may occur.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Avoid contact with skin and eyes. Ensure there is sufficient ventilation. Avoid dust formation. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

Accidental release measures: If dust is present, control smoking, open flames, sparks, static electricity and friction heat.

Methods and material for containment and cleaning up: Use mechanical handling equipment. Avoid dust formation. Dusts might form explosive mixtures with air. Use cleaning techniques that do not generate dust clouds if ignition sources are present. Use only vacuum cleaners approved for combustible dust collection.

Environmental Precautions: Do not allow to run into water channels, surface water, or into the ground. Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation): If the product is thermally treated, provide for a vapour exhaust device. In case of dust being formed, provide for adequate extraction. Avoid dust formation and control ignition sources. Employ grounding, venting and explosion relief provisions in accordance with accepted engineering practices in any process capable of generating dust and/or static electricity. To identify additional system design issues with respect to dust hazards, it is recommended to conduct a dust hazard analysis using information and sources provided in the OSHA Fact Sheet on combustible dusts (DSG 3/2008) and addressing enforcement issues identified in the Combustible Dust National Emphasis Program (Reissued) (CPL 03-00-008, 3/11/08)

Safe handling advice: In case of thermal processing, provide for extraction of the vapours or adequate ventilation. When using do not eat, drink or smoke. Avoid formation of dust. In case of dust being formed, provide for adequate extraction. Handle in accordance with good industrial hygiene and safety practice. Minimize the escape of dust from process equipment and ventilation systems. Use dust collection systems and filters. Utilize surfaces that minimize dust accumulation and facilitate cleaning. Dust accumulations should be avoided to prevent secondary dust explosions. Fumes from hot processing may be irritating to eyes and respiratory tract.

Contact avoidance measures: No data available.

Hygiene measures: Smoking, eating and drinking should be prohibited in the application area. Keep away from tobacco products.

Storage

Safe storage conditions: Store cool and dry in the closed original packaging. With attrition of dust-like particles, there is danger of dust explosion. Do not allow dust to collect in open or hidden areas. In product transfer systems involving the use of air as a fluidizing medium, the user must be sure to dissipate static charge by careful bonding and grounding of all equipment and personnel involved in fluid transfer, with continuity checks to prove effectiveness. Additional guidance on fire and explosion protection may be found in the consensus standard NFPA 654 for chemical dusts.

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
exposure limit for dust - Respirable particles.	TWA	3 mg/m ³	US. ACGIH Threshold Limit Values, as amended (03 2016)
exposure limit for dust - Inhalable particles.	TWA	10 mg/m ³	US. ACGIH Threshold Limit Values, as amended (03 2016)
exposure limit for dust - Total dust.	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
exposure limit for dust - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
exposure limit for dust - Total dust.	TWA	15 mg/m ³	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
exposure limit for dust - Respirable fraction.	TWA	5 mg/m ³	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
exposure limit for dust - Total dust.	TWA	15 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
exposure limit for dust - Respirable fraction.	TWA	5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)
exposure limit for dust - Total dust.	TWA	15 mg/m ³	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
exposure limit for dust - Respirable fraction.	TWA	5 mg/m ³	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended (06 2008)
exposure limit for dust - Total dust.	TWA PEL	10 mg/m ³	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended (01 2015)
exposure limit for dust -	TWA PEL	5 mg/m ³	US. California Code of Regulations, Title 8,

Respirable fraction.			Section 5155. Airborne Contaminants, as amended (01 2015)
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Appropriate Engineering Controls

If the product is thermally treated, provide for a vapour exhaust device. In case of dust being formed, provide for adequate extraction. Avoid dust formation and control ignition sources. Employ grounding, venting and explosion relief provisions in accordance with accepted engineering practices in any process capable of generating dust and/or static electricity. To identify additional system design issues with respect to dust hazards, it is recommended to conduct a dust hazard analysis using information and sources provided in the OSHA Fact Sheet on combustible dusts (DSG 3/2008) and addressing enforcement issues identified in the Combustible Dust National Emphasis Program (Reissued) (CPL 03-00-008, 3/11/08)

Individual protection measures, such as personal protective equipment

Eye/face protection:

Safety glasses with side-shields

Skin Protection

Hand Protection:

Additional Information: The wearing of protective gloves is not required if the granulate in question is handled at room temperature., Skin parts contaminated with dust must be cleaned with water and soap immediately., Use barrier cream regularly. Additional Information: Protective heat-insulating gloves are to be used during thermal processing.

Skin and Body Protection:

A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

Respiratory Protection:

In case product dust is released or if workplace exposure limit is exceeded: Respiratory protection complying with EN 143. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Hygiene measures:

Smoking, eating and drinking should be prohibited in the application area. Keep away from tobacco products.

9. Physical and chemical properties

Appearance

Physical state:

solid

Form:

granular

Color:

depending on grade

Odor:

Odorless

Odor Threshold:

not determined, Not required by safety or application considerations.

pH:

Not applicable

Melting Point:

343 °C

Boiling Point:

Not applicable Decomposition

Flash Point:

Not applicable

Evaporation Rate:	Not applicable
Flammability (solid, gas):	Not classified as a flammability hazard
Explosive limit - upper (%):	see Explosiveness
Explosive limit - lower (%):	see Explosiveness
Vapor pressure:	Not applicable
Vapor density (air=1):	No data available.
Density:	No data available.
Relative density:	1.3 - 1.5
Solubility in Water:	Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available. Not required by safety or application considerations.
Self Ignition Temperature:	The substance or mixture is not classified as pyrophoric. The substance or mixture is not classified as self heating.
Decomposition Temperature:	PTFE begins to disintegrate gradually at 260°C. Disintegration then accelerates rapidly at temperatures above 380°C and processing above this temperature results in highly toxic, caustic products. For this reason, processing temperatures above 380°C must be avoided.
Kinematic viscosity:	No data available.
Dynamic viscosity:	No data available. Not required by safety or application considerations.
Other information	
Explosive properties:	Not explosive Dusts might form explosive mixtures with air.
Oxidizing properties:	The substance or mixture is not classified as oxidizing.
Minimum ignition temperature:	575 °C
Formation of Flammable Gases:	Substance or mixture, which in contact with water, does not emit flammable gas
Metal Corrosion:	Not corrosive to metals
Peroxides:	The substance or mixture is not classified as organic peroxide.

10. Stability and reactivity

Reactivity:	Under normal conditions: stable.
Chemical Stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Stable under normal conditions.
Conditions to avoid:	extreme heat Keep away from direct sunlight.
Incompatible Materials:	Oxidizing agents. sulphuric acid
Hazardous Decomposition Products:	Carbon Dioxide. Carbon Monoxide. Hydrogen fluoride. Carbonyl fluoride. Tetrafluoroethylene Hexafluoropropylene Perfluoroisobutylene

11. Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
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Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

**Oral
Product:** No data available.

**Dermal
Product:** No data available.

**Inhalation
Product:** No data available.

**Repeated dose toxicity
Product:** No data available.

**Skin Corrosion/Irritation
Product:** No data available.

**Serious Eye Damage/Eye Irritation
Product:** No data available.

**Respiratory or Skin Sensitization
Product:** No data available.

**Carcinogenicity
Product:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogens present or none present in regulated quantities

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogens present or none present in regulated quantities

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity**In vitro****Product:** No data available.**In vivo****Product:** No data available.**Reproductive toxicity****Product:** No data available.**Components:**

Graphite Not classified

Specific Target Organ Toxicity - Single Exposure**Product:** No data available.**Components:**Graphite Not classified
No data available.**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Components:**Graphite Not classified
No data available.**Aspiration Hazard****Product:** No data available.**Components:**

Graphite Not classified No data available.

Other effects:

No toxicological tests have been conducted with the product itself.

12. Ecological information**Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Aquatic Invertebrates****Product:** No data available.**Chronic hazards to the aquatic environment:****Fish****Product:** No data available.

Aquatic Invertebrates**Product:** No data available.**Toxicity to Aquatic Plants****Product:** No data available.**Persistence and Degradability****Biodegradation****Product:** No data available.**BOD/COD Ratio****Product:** No data available.**Bioaccumulative potential****Bioconcentration Factor (BCF)****Product:** No data available.**Components:**

Graphite Not to be expected.

Partition Coefficient n-octanol / water (log Kow)**Product:** Log Kow: No data available. Not required by safety or application considerations.**Mobility in soil:**

No data available.

Components:

Graphite No data available.

Other adverse effects:

No investigations were carried out with the preparation itself.

13. Disposal considerations**Disposal methods:**

Waste must be disposed of in accordance with federal, state, provincial and local regulations.

Contaminated Packaging:

Packaging material should be recycled or disposed of in accordance with federal, state and local regulations.

14. Transport information**Domestic regulation****49 CFR**

Not regulated as a dangerous good

Remarks : Not dangerous according to transport regulations.

International Regulations**UNRTDG**

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

15. Regulatory information**US Federal Regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Not classified

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

None present or none present in regulated quantities.

US. EPCRA (SARA Title III) Section 312 Extremely Hazardous Substances Reporting Quantities (40 CFR 355, Appendix A)**Chemical Identity**

Not regulated.

Not regulated.

Threshold Planning Quantity**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required**

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Graphite

US. Massachusetts RTK - Substance List

Chemical Identity

Graphite

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Graphite

US. Rhode Island RTK

Chemical Identity

Graphite

Inventory Status:

US TSCA Inventory:	On or in compliance with the inventory
Canada DSL Inventory List:	Not in compliance with the inventory.

16. Other information, including date of preparation or last revision

HMIS Hazard ID

Health	1
Flammability	1
Physical Hazards	0
PERSONAL PROTECTION	

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

Issue Date: 09/24/2019

Version #: 1.0

Further Information: No data available.

Revision Information Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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