



# SAFETY DATA SHEET

## POLYFLOC\* CE1167

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### 1. Identification

|                               |                 |
|-------------------------------|-----------------|
| Product identifier            | POLYFLOC CE1167 |
| Other means of identification | None.           |
| Recommended use               | Flocculant      |
| Recommended restrictions      | None known.     |

#### Company/undertaking identification

GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

### 2. Hazard(s) identification

|                      |                 |
|----------------------|-----------------|
| Physical hazards     | Not classified. |
| Health hazards       | Not classified. |
| OSHA defined hazards | Not classified. |

#### Label elements

|   |  |
|---|--|
| Hazard symbol                             | None.  |
| Signal word                               | None.  |
| Hazard statement                          | The mixture does not meet the criteria for classification. |
| Precautionary statement                   |  |
| Prevention                                | Observe good industrial hygiene practices.                 |
| Response                                  | Wash hands after handling.                                 |
| Storage                                   | Store away from incompatible materials.                    |
| Disposal                                  | Dispose of contents/container to approved local facility.. |
| Hazard(s) not otherwise classified (HNOC) | Combustible.   |
| Supplemental information                  | None.  |

### 3. Composition/information on ingredients

#### Mixtures

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

|                      |  |
|----------------------|--|
| Composition comments | Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation. |
|----------------------|--|

## 4. First-aid measures

|   |   |
|---|---|
| <b>Inhalation</b>   | If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.   |
| <b>Skin contact</b>   | Rinse skin with water/shower. Get medical attention if irritation develops and persists.  |
| <b>Eye contact</b>  | Rinse with water. Get medical attention if irritation develops and persists.  |
| <b>Ingestion</b>  | Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Headache. Nausea, vomiting. Diarrhea.   |
| <b>Indication of immediate medical attention and special treatment needed</b> | Aspiration into the lungs will result in chemical pneumonia and may be fatal.   |
| <b>General information</b>  | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.  |

## 5. Fire-fighting measures

|  |  |
|--|--|
| <b>Suitable extinguishing media</b>                                  | Alcohol resistant foam. Powder. Dry chemicals. Carbon dioxide (CO <sub>2</sub> ).  |
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.   |
| <b>Specific hazards arising from the chemical</b>                    | During fire, gases hazardous to health may be formed.  |
| <b>Special protective equipment and precautions for firefighters</b> | Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.   |
| <b>Fire fighting equipment/instructions</b>                          | In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Cool containers / tanks with water spray. |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials.   |
| <b>General fire hazards</b>  | Combustible. No unusual fire or explosion hazards noted.   |

## 6. Accidental release measures

|  |  |
|--|--|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.  |
| <b>Methods and materials for containment and cleaning up</b>               | Use water spray to reduce vapors or divert vapor cloud drift.<br><br>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.<br><br>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.<br><br>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. |
| <b>Environmental precautions</b>   | Avoid discharge into drains, water courses or onto the ground.   |

## 7. Handling and storage

|   |   |
|---|---|
| <b>Precautions for safe handling</b>                                | Spills are very slippery. Avoid prolonged or repeated contact with skin. Use only in well-ventilated areas.   |
| <b>Conditions for safe storage, including any incompatibilities</b> | Keep away from heat and sources of ignition. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store in accordance with local/regional/national/international regulation. |

## 8. Exposure controls/personal protection

|   |   |
|---|---|
| <b>Occupational exposure limits</b>     | No exposure limits noted for ingredient(s).   |
| <b>Biological limit values</b>          | No biological exposure limits noted for the ingredient(s).  |
| <b>Appropriate engineering controls</b> | Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |

## Individual protection measures, such as personal protective equipment

|                                       |  |
|---------------------------------------|--|
| <b>Eye/face protection</b>            | Splash proof chemical goggles. Chemical goggles are recommended.   |
| <b>Skin protection</b>                |  |
| <b>Hand protection</b>                | Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Suitable gloves can be recommended by the glove supplier. Glove selection must take into account any solvents and other hazards present. |
| <b>Other</b>                          | Wear appropriate chemical resistant clothing.  |
| <b>Respiratory protection</b>         | In case of insufficient ventilation, wear suitable respiratory equipment. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.  |
| <b>Thermal hazards</b>                | Wear appropriate thermal protective clothing, when necessary.  |
| <b>General hygiene considerations</b> | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.  |

## 9. Physical and chemical properties

### Appearance

|  |                            |
|--|----------------------------|
| <b>Color</b>                                   | White to off-white         |
| <b>Physical state</b>                          | Emulsion                   |
| <b>Odor</b>                                    | Slight hydrocarbon         |
| <b>Odor threshold</b>                          | Not available.             |
| <b>pH in aqueous solution</b>                  | 4.2 (0.5% SOL.)            |
| <b>Melting point/freezing point</b>            | < 23 °F (< -5 °C)          |
| <b>Initial boiling point and boiling range</b> | 210 °F (99 °C)             |
| <b>Flash point</b>                             | > 200 °F (> 93 °C) P-M(CC) |
| <b>Evaporation rate</b>                        | < 1 (Ether = 1)            |
| <b>Flammability (solid, gas)</b>               | Not applicable.            |

### Upper/lower flammability or explosive limits

|                                       |                |
|---------------------------------------|----------------|
| <b>Flammability limit - lower (%)</b> | Not available. |
| <b>Flammability limit - upper (%)</b> | Not available. |
| <b>Explosive limit - lower (%)</b>    | Not available. |
| <b>Explosive limit - upper (%)</b>    | Not available. |

|  |                   |
|--|-------------------|
| <b>Vapor pressure</b>                          | 18 mm Hg          |
| <b>Vapor pressure temp.</b>                    | 70 °F (21 °C)     |
| <b>Vapor density</b>                           | > 1 (Air = 1)     |
| <b>Relative density</b>                        | 1.04              |
| <b>Relative density temperature</b>            | 70 °F (21 °C)     |
| <b>Solubility(ies)</b>                         |                   |
| <b>Solubility (water)</b>                      | Not available.    |
| <b>Partition coefficient (n-octanol/water)</b> | Not available.    |
| <b>Auto-ignition temperature</b>               | Not available.    |
| <b>Decomposition temperature</b>               | Not available.    |
| <b>Viscosity</b>                               | 1500 cps          |
| <b>Viscosity temperature</b>                   | 70 °F (21 °C)     |
| <b>Other information</b>                       |                   |
| <b>Explosive properties</b>                    | Not explosive.    |
| <b>Oxidizing properties</b>                    | Not oxidizing.    |
| <b>Percent volatile</b>                        | 35 (Calculated)   |
| <b>Pour point</b>                              | < 28 °F (< -2 °C) |

Specific gravity 1.04

## 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport.  |
| <b>Chemical stability</b>                 | Material is stable under normal conditions.  |
| <b>Possibility of hazardous reactions</b> | Hazardous polymerization does not occur.   |
| <b>Conditions to avoid</b>                | Avoid temperatures exceeding the flash point. Contact with incompatible materials. None under normal conditions.   |
| <b>Incompatible materials</b>             | Strong oxidizing agents. Contact with oxidizers may cause fire.  |
| <b>Hazardous decomposition products</b>   | Oxides of carbon and nitrogen, hydrogen chloride, ammonia and volatile amines. Toxic gas. Hydrogen chloride. Oxides of carbon and nitrogen, ammonia and volatile amines. |

## 11. Toxicological information

### Information on likely routes of exposure

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Prolonged inhalation may be harmful. Mists/aerosols may cause irritation to upper respiratory tract. |
| <b>Skin contact</b> | Prolonged or repeated contact may cause irritation.  |
| <b>Eye contact</b>  | Direct contact with eyes may cause temporary irritation.   |
| <b>Ingestion</b>    | Expected to be a low ingestion hazard.   |

**Symptoms related to the physical, chemical and toxicological characteristics** Headache. Nausea, vomiting. Diarrhea. Exposure may cause temporary irritation, redness, or discomfort.

### Information on toxicological effects

#### Acute toxicity

| Product                       | Species | Test Results                    |
|-------------------------------|---------|---------------------------------|
| POLYFLOC CE1167 (CAS Mixture) |         |                                 |
| <b>Acute</b>                  |         |                                 |
| <i>Dermal</i>                 |         |                                 |
| LD50                          | Rabbit  | > 5000 mg/kg, (Estimated value) |
| <i>Oral</i>                   |         |                                 |
| LD50                          | Rat     | > 5000 mg/kg, (Estimated value) |

\* Estimates for product may be based on additional component data not shown.

|   |  |
|---|--|
| <b>Skin corrosion/irritation</b>                                      | Prolonged skin contact may cause temporary irritation.   |
| <b>Serious eye damage/eye irritation</b>                              | Direct contact with eyes may cause temporary irritation.   |
| <b>Respiratory or skin sensitization</b>                              |  |
| <b>Respiratory sensitization</b>                                      | Not a respiratory sensitizer.  |
| <b>Skin sensitization</b>   | This product is not expected to cause skin sensitization.  |
| <b>Germ cell mutagenicity</b>   | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.   |
| <b>Carcinogenicity</b>  | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.  |
| <b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>         | Not available.   |
| <b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b> | Not listed.  |
| <b>US. National Toxicology Program (NTP) Report on Carcinogens</b>    | Not available.   |
| <b>Reproductive toxicity</b>  | This product is not expected to cause reproductive or developmental effects.   |
| <b>Specific target organ toxicity - single exposure</b>               | Not classified.  |
| <b>Specific target organ toxicity - repeated exposure</b>             | Not classified.  |
| <b>Aspiration hazard</b>  | Based on available data, the classification criteria are not met. Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm <sup>2</sup> /sec measured at 40C. |
| <b>Chronic effects</b>  | Prolonged inhalation may be harmful.   |

## 12. Ecological information

### Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Product                       | Species | Test Results   |   |
|-------------------------------|---------|----------------|---|
| POLYFLOC CE1167 (CAS Mixture) |         |                |   |
|                               | LC50    | Fathead Minnow | 2.2 mg/L, Static Renewal Bioassay, 96 hour          |
|                               | NOEL    | Fathead Minnow | 1.3 mg/L, Static Renewal Bioassay, 96 hour          |
| <b>Aquatic</b>                |         |                |   |
| Crustacea                     | EC50    | Daphnia magna  | > 50 mg/L, Acute Toxicity, 48 hour, (Natural Water) |
|                               | LC50    | Daphnia magna  | 28 mg/L, Static Renewal Bioassay, 48 hour           |
|                               | NOEL    | Daphnia magna  | 3 mg/L, Static Renewal Bioassay, 48 hour            |
| Fish                          | LC50    | Fish           | > 10 mg/L, Acute Toxicity, 96 hour, (Natural Water) |
|                               |         | Rainbow Trout  | 0.9 mg/L, Static Acute Bioassay, 96 hour            |
|                               | NOEL    | Rainbow Trout  | 0.49 mg/L, Static Acute Bioassay, 96 hour           |

\* Estimates for product may be based on additional component data not shown.

### Bioaccumulative potential

#### Mobility in soil

No data available.

#### Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

#### Environmental fate

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

#### Persistence and degradability

No data is available on the degradability of this product.

|   |      |
|---|------|
| - COD (mgO <sub>2</sub> /g)                     | 1170 |
| - BOD 5 (mgO <sub>2</sub> /g)                   | 434  |
| - BOD 28 (mgO <sub>2</sub> /g)                  | 434  |
| - Closed Bottle Test (% Degradation in 28 days) | 37   |
| - TOC (mg C/g)                                  | 490  |

## 13. Disposal considerations

#### Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

#### Local disposal regulations

Dispose in accordance with all applicable regulations.

#### Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

#### Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

#### Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

## 15. Regulatory information

|  |   |                               |
|--|---|-------------------------------|
| <b>US federal regulations</b>  | All components are on the U.S. EPA TSCA Inventory List.<br>This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. |                               |
| <b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>   | Not regulated.  |                               |
| <b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>  | Not listed.   |                               |
| <b>SARA 304 Emergency release notification</b>   | Not regulated.  |                               |
| <b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>  | Not listed.   |                               |
| <b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>   |   |                               |
| <b>Hazard categories</b>   | Immediate Hazard - No<br>Delayed Hazard - No<br>Fire Hazard - No<br>Pressure Hazard - No<br>Reactivity Hazard - No  |                               |
| <b>SARA 302 Extremely hazardous substance</b>  | Not listed.   |                               |
| <b>SARA 311/312 Hazardous chemical</b>   | No  |                               |
| <b>SARA 313 (TRI reporting)</b>  | Not regulated.  |                               |
| <b>Other federal regulations</b>   |   |                               |
| <b>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List</b>  | Not regulated.  |                               |
| <b>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)</b>  | Not regulated.  |                               |
| <b>Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)</b>  | Hazardous substance   |                               |
| <b>Safe Drinking Water Act (SDWA)</b>  | Not regulated.  |                               |
| <b>Inventory status</b>  |   |                               |
| <b>Country(s) or region</b>  | <b>Inventory name</b>   | <b>On inventory (yes/no)*</b> |
| Canada   | Domestic Substances List (DSL)  | Yes                           |
| Canada   | Non-Domestic Substances List (NDSL)   | No                            |
| United States & Puerto Rico  | Toxic Substances Control Act (TSCA) Inventory   | Yes                           |
| *A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)<br>A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s). |   |                               |
| <b>Food and drug administration</b>  | 21 CFR 176.170 (components of paper and paperboard in contact with aqueous and fatty foods)   |                               |
| <b>US state regulations</b>  |   |                               |
| <b>US - Massachusetts RTK - Substance List</b>   | Not regulated.  |                               |
| <b>US - Pennsylvania RTK - Hazardous Substances</b>  | Not regulated.  |                               |
| <b>US - Rhode Island RTK</b>   | Not regulated.  |                               |
| <b>US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)</b>  | Not listed.   |                               |
| <b>US. New Jersey Worker and Community Right-to-Know Act</b>   | Not listed.   |                               |
| <b>US. Pennsylvania Worker and Community Right-to-Know Law</b>   | Not listed.   |                               |

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

No ingredient listed.

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

No ingredient listed.

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

**Issue date** Jul-31-2015  
**Revision date** Mar-15-2016  
**Version #** 3.0

**List of abbreviations** CAS: Chemical Abstract Service Registration Number  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.  
ACGIH: American Conference of Governmental Industrial Hygienists  
NOEL: No Observed Effect Level  
STEL: Short Term Exposure Limit  
LC50: Lethal Concentration, 50%  
LD50: Lethal Dose, 50%  
TWA: Time Weighted Average  
BOD: Biochemical Oxygen Demand  
COD: Chemical Oxygen Demand  
TOC: Total Organic Carbon  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods Code

**References:** No data available

**Disclaimer** 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.

**Revision information** This document has undergone significant changes and should be reviewed in its entirety.

**Prepared by** This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).

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