

# SAFETY DATA SHEET

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product Name** CGHF1

**Product Description** 1000 µg/mL: Hafnium

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Recommended Use** Laboratory chemicals

**Uses advised against** No information available

### 1.3. Details of the supplier of the safety data sheet

#### Company

Inorganic Ventures  
300 Technology Drive  
Christiansburg, VA 24073  
Phone: 1(800) 669-6799  
Email: info@inorganicventures.com

### 1.4. Emergency telephone number

Chemtrec 1-800-424-9300 (North America)

Chemtrec +1 703-741-5970 (International)

|        |           |
|--------|-----------|
| Europe | See above |
|--------|-----------|

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification according to  
Regulation (EC) No. 1272/2008 [CLP]**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### GHS

### 2.2. Label elements

#### Product identifier

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### Signal word

None

#### Hazard statements

### 2.3. Other hazards

No information available

## SECTION 3: Composition/information on ingredients

### **3.1 Substances**

This material is not classified according to Regulation (EC)No. 1272/2008 [CLP].

**Full text of H- and EUH-phrases: see section 16**

## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

|              |                                                                                                       |
|--------------|-------------------------------------------------------------------------------------------------------|
| Inhalation   | Remove to fresh air.                                                                                  |
| Skin Contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. |
| Ingestion    | Clean mouth with water and drink afterwards plenty of water.                                          |

### **4.2. Most important symptoms and effects, both acute and delayed**

|                                     |                                                 |
|-------------------------------------|-------------------------------------------------|
| Most Important Symptoms and Effects | Asthma-like and/ or skin allergy-like symptoms. |
|-------------------------------------|-------------------------------------------------|

### **4.3. Indication of any immediate medical attention and special treatment needed**

|                    |                       |
|--------------------|-----------------------|
| Notes to Physician | Treat symptomatically |
|--------------------|-----------------------|

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### **Unsuitable Extinguishing Media**

No information available

### **5.2. Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating gases and vapors

### **5.3. Advice for firefighters**

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

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **Personal Precautions**

Ensure adequate ventilation.

#### **Advice for emergency responders**

Ensure adequate ventilation.

## **6.2. Environmental precautions**

Prevent further leakage or spillage if safe to do so. See Section 12 for additional Ecological Information.

## **6.3. Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Take up mechanically, placing in appropriate containers for disposal.

## **6.4. Reference to other sections**

See Section 12: ECOLOGICAL INFORMATION.

# **SECTION 7: Handling and storage**

## **7.1. Precautions for safe handling**

**Advice on safe handling**  
Ensure adequate ventilation.

**Hygiene Measures**  
Handle in accordance with good industrial hygiene and safety practice.

## **7.2. Conditions for safe storage, including any incompatibilities**

**Storage Conditions**  
Keep container tightly closed in a dry and well-ventilated place.

## **7.3. Specific end use(s)**

# **SECTION 8: Exposure controls/personal protection**

## **8.1. Control parameters**

### **Exposure Limits**

**Derived No Effect Level (DNEL)** No information available

**Predicted No Effect Concentration (PNEC)** No information available.

## **8.2. Exposure controls**

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

### **Personal protective equipment**

**Eye/Face Protection** Wear safety glasses with side shields (or goggles).

**Hand Protection** Impervious gloves.

**Skin and Body Protection** Long sleeved clothing.

**Respiratory Protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Environmental Exposure Controls** No information available.

# **SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

|                                         |                          |
|-----------------------------------------|--------------------------|
| Physical state                          | Liquid                   |
| Appearance                              | clear /colorless         |
| Odor                                    | Odorless                 |
| pH - VALUE 1                            | No data available        |
| Melting point / melting range           | No data available        |
| Initial boiling point and boiling range | 100 °C / 212 °F          |
| Vapor pressure @20 °C (kPa)             | No data available        |
| Relative vapor density                  | No data available        |
| Relative Density                        | No data available        |
| Specific gravity - VALUE 1              | No data available        |
| Water solubility                        | Miscible                 |
| Partition coefficient: n-octanol/water  | No data available        |
| Autoignition temperature                | No data available        |
| Decomposition temperature               | No data available        |
| Dynamic viscosity - VALUE 1             | No data available        |
| Explosive properties                    | No information available |
| Oxidizing Properties                    | No information available |
| VOC content                             | No information available |

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No data available.

**10.2. Chemical stability**

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact    None.

Sensitivity to Static Discharge        None.

**10.3. Possibility of hazardous reactions****Hazardous polymerization**

None under normal processing.

**Hazardous Reactions**

None under normal processing.

**10.4. Conditions to avoid**

None known.

**10.5. Incompatible materials**

No information available

**10.6. Hazardous decomposition products**

None under normal use conditions.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute Toxicity

|                            |                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------|
| <b>Product Information</b> | Product does not present an acute toxicity hazard based on known or supplied information. |
| <b>Inhalation</b>          | No data available.                                                                        |
| <b>Eye Contact</b>         | No data available.                                                                        |
| <b>Skin Contact</b>        | No data available.                                                                        |
| <b>Ingestion</b>           | No data available.                                                                        |

The following ATE values have been calculated for the mixture

mg/l

#### **Unknown acute toxicity**

- 0 % of the mixture consists of ingredient(s) of unknown acute toxicity.
- 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
- 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

|                                          |                           |
|------------------------------------------|---------------------------|
| <b>Skin corrosion/irritation</b>         | No information available. |
| <b>Serious eye damage/eye irritation</b> | No information available. |
| <b>Sensitization</b>                     | No information available. |
| <b>Mutagenic Effects</b>                 | No information available. |
| <b>Carcinogenic effects</b>              | No information available. |
| <b>Reproductive Toxicity</b>             | No information available. |
| <b>STOT - single exposure</b>            | No information available. |
| <b>STOT - repeated exposure</b>          | No information available. |
| <b>Aspiration hazard</b>                 | No information available. |

## SECTION 12: Ecological information

### 12.1. Toxicity

Contains 0 % of components with unknown hazards to the aquatic environment

### 12.2. Persistence and degradability

No information available.

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil****Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

No information available.

**12.6. Other adverse effects**

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

|                                            |                                                                                                     |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Waste from Residues/Unused Products</b> | Dispose of in accordance with federal, state and local regulations.                                 |
| <b>Contaminated Packaging</b>              | Do not reuse empty containers.                                                                      |
| <b>Other information</b>                   | Waste codes should be assigned by the user based on the application for which the product was used. |

## SECTION 14: Transport information

**IMDG**

|                                                                                                |                                           |
|------------------------------------------------------------------------------------------------|-------------------------------------------|
| <b>14.1. UN-No</b>                                                                             | Not regulated                             |
| <b>14.2. Proper shipping name</b>                                                              | Not regulated                             |
| <b>14.3. Transport hazard class(es)</b>                                                        | Not regulated                             |
| <b>14.4. Packing Group</b>                                                                     | Not regulated                             |
| <b>Description</b>                                                                             | Not applicable                            |
| <b>14.5. Marine Pollutant</b>                                                                  | None                                      |
| <b>14.6. Special Provisions</b>                                                                | None                                      |
| <b>No information available in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | <b>Transport</b> No information available |

**RID**

|                                         |                |
|-----------------------------------------|----------------|
| <b>14.1. UN-No</b>                      | Not regulated  |
| <b>14.2. Proper shipping name</b>       | Not regulated  |
| <b>14.3. Transport hazard class(es)</b> | Not regulated  |
| <b>14.4. Packing Group</b>              | Not regulated  |
| <b>Description</b>                      | Not applicable |
| <b>14.5. Environmental hazard</b>       | None           |
| <b>14.6. Special Provisions</b>         | None           |

**ADR**

|                    |               |
|--------------------|---------------|
| <b>14.1. UN-No</b> | Not regulated |
|--------------------|---------------|

|                                  |                |
|----------------------------------|----------------|
| 14.2. Proper shipping name       | Not regulated  |
| 14.3. Transport hazard class(es) | Not regulated  |
| 14.4. Packing Group              | Not regulated  |
| Description                      | Not applicable |
| 14.5. Environmental hazard       | None           |
| 14.6. Special Provisions         | None           |

**ICAO**

|                            |                |
|----------------------------|----------------|
| 14.1. UN-No                | Not regulated  |
| 14.2. Proper Shipping Name | Not regulated  |
| 14.3. Hazard Class         | Not regulated  |
| 14.4. Packing Group        | Not regulated  |
| Description                | Not applicable |
| 14.5. Environmental hazard | None           |
| 14.6. Special Provisions   | None           |

**IATA-DGR**

|                            |                |
|----------------------------|----------------|
| 14.1. UN-No                | Not regulated  |
| 14.2. Proper shipping name | Not regulated  |
| 14.3.                      |                |
| 14.4. Packing Group        | Not regulated  |
| Description                | Not applicable |
| 14.5. Environmental hazard | None           |
| 14.6. Special Provisions   | None           |

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**International Inventories**

All of the components in the product are on the following Inventory lists: U.S.A. (TSCA), Europe (EINECS/ELINCS/NLP), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), China (IECSC), Australia (AICS), Korea (ECL).

|               |          |
|---------------|----------|
| TSCA          | Complies |
| EINECS/ELINCS | Complies |
| DSL/NDSL      | Complies |
| PICCS         | Complies |
| ENCS          | Complies |
| IECSC         | Complies |
| AIC           | Complies |
| KECL          | Complies |

**Legend**

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances

**15.2. Chemical safety assessment**

No information available

**SECTION 16: Other information****Full text of R-phrases referred to under sections 2 and 3**

No information available

**Revision date** 17-Apr-2026

**Reason for Revision** Not applicable.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**Disclaimer**

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End of Safety Data Sheet