



Hummel Croton Inc.  
10 Harmich Rd.  
South Plainfield, NJ 07080  
www.HummelCroton.com  
Phone: 908-754-1800  
Fax: 908-754-1815

In Case Of Emergency Call  
(U.S.) 800-424-9300  
(International) +1-813-248-3924

## Zirconium Carbide Safety Data Sheet

### 1. Product and Company

Product name: Zirconium Carbide  
Synonym: None  
CAS-No.: 12070-14-3  
Company: Hummel Croton Inc.  
10 Harmich Rd.  
South Plainfield, NJ 07080  
Telephone: 908-754-1800  
Fax: 908-754-1815

| HMIS Rating         |   |
|---------------------|---|
| Health              | 2 |
| Flammability        | 3 |
| Reactivity          | 3 |
| Personal Protection | E |

Emergency telephone number

Emergency Phone #: Chemtrec US: 800-424-9300  
ChemTel International: +1-813-248-0585

### 2. Hazards

#### GHS Label elements

GHS Classification: Flammable solids (Category 1), H228  
Acute toxicity, Oral (Category 4), H302  
Acute toxicity, Inhalation (Category 4), H332  
Acute toxicity, Dermal (Category 4), H312

Pictogram(s)



Signal word **DANGER**

Hazard statement(s)

H228 Flammable solid.  
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing/ eye protection/ faceprotection.  
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.  
P322 Specific measures (see supplemental first aid instructions on this label).  
P330 Rinse mouth.  
P363 Wash contaminated clothing before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
P501 Dispose of contents/ container to an approved waste disposal plant.

**Hazards not otherwise classified (HNOC) or not covered by GHS**

None

**3. Composition/Ingredients**

**Substance**

Formula: ZrC  
Molecular weight: 103.23 g/mol  
CAS-No.: 12070-14-3

| Material          | CAS        | %    | OSHA                      | ACGIH                     |
|-------------------|------------|------|---------------------------|---------------------------|
| Zirconium Carbide | 12070-14-3 | 100% | 5 mg/m <sup>3</sup> as Zr | 5 mg/m <sup>3</sup> as Zr |

**4. First Aid**

**First Aid For Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**First Aid For Skin:** In case of contact, flush skin with water. Wash clothing before reuse. Call a physician if irritation occurs.

**First Aid For Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**First Aid For Ingestion:** If swallowed, call a physician immediately.

## 5. Fire Data

Flammability: Non-Flammable

Flash Point: Not Applicable

Auto Ignition: Not Applicable

Flammable Limits: Not Applicable

Extinguishing Media: Sand, dry powder type agents designed for metal powder fires.

Fire Fighting Procedure: Do not apply water to burning material. Full emergency equipment with self-contained breathing apparatus must be worn by firefighters. During a fire, irritating and toxic gases and aerosols may be generated by thermal decomposition and combustions.

Fire/Explosion Hazards: Dust and fumes from this product may be a fire and explosion hazard when exposed to high temperatures of ignition sources. Particle size and dispersion in air determine reactivity.

## 6. Accidental Release

Spill Or Leak Procedures: Utilize recommended protective clothing and equipment. Clean spills in a manner that does not disperse dust into the air. Spill area can be washed with water.

Collect wash water for approved disposal. Keep from entering water or ground water.

## 7. Handling And Storage

Storage Temperatures: Store at ambient temperature.

Shelf Life: Unlimited in tightly sealed container

Special Sensitivity: None

Handling/Storage Precautions: Avoid breathing dust. Avoid getting in eyes or on skin. Wash thoroughly after handling. Store in a dry place away from direct sunlight, heat and incompatible materials. Reseal containers after use. Store away from food and beverages.

## 8. Exposure Controls/Personal Protection

Eye Protection: Safety glasses or goggles.

Skin Protection: PVC gloves with impervious boots, apron or coveralls. Wash hands and face before eating, drinking or using tobacco.

Respirator: Work ambient concentrations should be monitored and if the recommended exposure limit is exceeded, a NIOSH/MSHA approved dust respirator must be worn.

Ventilation: Use local ventilation if dusting is a problem, to maintain air levels below the recommended exposure limit.

Additional Measures: Emergency showers and eye wash stations should be available. Educate and train employees in the safe handling of hazardous chemicals.

## 9. Physical And Chemical Properties

Physical Form: Powder

Color: Gray to Black

Odor: Odorless

Molecular Weight: 102.23 g/mol

Boiling Point: Not Established

Melting/Freezing Point: 3420°C

Solubility In Water: Insoluble

Specific Gravity: 6.73

## 10. Stability And Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur.

Incompatibilities: Evolves flammable hydrogen gas on contact with acids and bases.

Instable Conditions: Excessive temperatures (see incompatibilities).

Decomposition Temperature: Not known.

Decomposition Products: May produce oxides of zirconium and carbon.

## 11. Toxicological Information

RTECS Number: Not Established

Routes of Exposure: Eye contact. Ingestion. Inhalation. Skin contact.

Toxicity Data: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Chronic Toxic Effects: This product has no known chronic effects. Repeated or prolonged exposure to this compound is not known to aggravate medical conditions.

Acute Toxic Effects: Irritating to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucus membrane. Irritation to the eyes will cause watering and redness.

Reddening, scaling, and itching are characteristics of skin inflammation. Follow safe industrial hygiene practices and always wear protective equipment when handling this compound.

## 12. Ecological Information

Ecotoxicity: Not available at this time.

## 13. Disposal Considerations

Waste Disposal Method: Waste disposal should be in accordance with existing federal, state and local environmental regulations.

## 14. Transportation Information

Proper Shipping Name: Zirconium Carbide

UN Number: 3178

Class: 4.1

P.G.: II

Label Code: 4.1

## 15. Regulatory Information

OSHA Status: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Chemical Inventory: This compound is on the EPA Toxic Substance Control Act (TSCA) Inventory List

California Proposition 65: To the best of our knowledge, this product contains no levels of listed substances which the state of California has found to cause cancer, birth defects, or other reproductive effects.

SARA 313 Title III:

Section 320 Extremely Hazardous Substances: None

Section 311/312 Hazardous Categories: None

Section 313 Toxic Chemicals: None

## **16. Other Information**

Prepared By: Michael Richard

Date: March 21, 2018

Reason For Issue: Emergency Contact Update

No warranty, expressed or implied, or merchantability, fitness for a particular purpose or otherwise is made, except that the products herein discussed comply with the chemical description on the labels. Buyer assumes risks of the use, storage and handling. Hummel Croton shall not be liable for any incidental or consequential damages arising directly or indirectly in connection with the purchase, use, storage or handling of this product. The information contained herein is, to the best of our knowledge, true and accurate. However, all recommendations or suggestions are made without guarantee, since the conditions of use are beyond our control. We disclaim any liability incurred in connection with the use of these data or suggestions. This information is not to be taken as a license to operate under, or a recommendation to infringe any patent(s). The observance of all regulations and patents is the responsibility of the user. No agent, representative or employee of this company is authorized to vary any items of this notice.