

## ZIRCONIUM CARBIDE

### Section I

<b>Kurt J. Lesker Company</b> 1925 Worthington Avenue Clairton, PA 15025 Ph: 412/387-9200 Fax: 412/233-4275		Emergency Phone Numbers  Chemtrec 800/424-9300 Poison Center 800/562-8236	
Chemical Name and Synonyms <b>Zirconium Carbide</b>		Date of Last Revision 9/27/94	
Formula ZrC	Chemical Family Metal Carbide	Chemical Abstract No. 12070-14-3	
TSCA Listed		Calc. Molecular Wt. 103.23	

### Section II Hazardous Ingredients

Hazardous Ingredients	CAS #	%	TLV	OSHA PEL
Zirconium Carbide	102070-14-3	100	5mg/m <sup>3</sup> as Zr	5mg/m <sup>3</sup> as Zr

### Section III Physical Data

Boiling Point (0°C): 1500	Density (gmcc): 7.73
Vapor Pressure: NA	% Volatile by Volume: NA
Reaction with Water: None	Evaporation Rate (H <sub>2</sub> O -1): NA
Solubility in Water: Insoluble	Melting Point (°C): 3540
Appearance and Odor: Gray powder, no odor	Other Comments:

### Section IV Fire & Explosion Hazard Data

Flash Point (method) NA	Autoignition Temp. NA	Flammability Flammable solid	LEI NA	UEI NA
Extinguishing Media: Agent for metal fires (like G-1 powder, MET-L-X, or TEC).				
Special Fire Fighting Procedures: Do not use water.				
Unusual Fire and Explosion Hazards: Dust explosion hazard. Heated powder can ignite in air. A flammable solid in dust form.				

### Section V Spill or Leak Process

Steps to be Taken in Case Material is Released or Spilled: Sweep or scoop up and remove.
Waste Disposal Method (Consult federal, state or local authorities for proper disposal procedures.): Dispose of with normal refuse.

**Section VI Health Hazard Data**

Toxicity Data  No data	HMIS Hazard Rating Health: 1 Flammability: 2 Reactivity: 0 Personal Protection: E
Route(s) of Entry      Inhalation: X      Skin: X      Ingestion:	
Effects of Overexposure (acute and chronic) Inhalation: A nuisance dust. May cause mild pulmonary irritation. No long term effects associated with Zr dust exposure. Lung granulomas have been reported for inhalation of zirconium compounds. Dermal/Eye Contact: Mild irritation to the skin. Repeated contact may cause irritation. Corrosivity - none. Other (specify): A relatively non-toxic compound. Granulomas upon dermal application of Zr sales. Low toxicity via ingestion.	
Medical Conditions Generally Aggravated by Exposure: ND	
Carcinogenicity: None      NTP:      IARC Monographs:      OSHA Regulations:	
Emergency and First Aid Procedures Ingestion: Induce vomiting. Inhalation: Remove to fresh air. Skin Contact: Flush with water. Eye Contact: Flush with plenty of water for a least 15 minutes.	

**Section VII Reactivity Data**

Stable: X Unstable:	Conditions Contributing to Instability: None
Incompatibility (materials to avoid): None	
Hazardous Decomposition Products - Thermal and Other (list): None.	
Hazardous Polymerization May Occur: Will Not Occur: X	Conditions to Avoid: Open flames, heat

**Section VIII Special Protective Information**

Respiratory Protection (specify type). Use Only Niosh Approved Equip. Half-masks air purifying respirator for dusty operations.	
Ventilation (always maintain exposure below permissible limits) Local Exhaust: Recommended Mechanical (general): Use with adequate ventilation Special:      Other:	
Protective Gloves: Neoprene	Eye Protection: Safety Glasses
Other Protective Equipment/Work Practices: Disposable coveralls.	

**Section IX Special Precautions**

Precautions to be Taken in Handling and Storing: Wash thoroughly after
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handling. Keep away from heat, sparks, and open flames. Store in tightly closed containers.

Transportation Requirements

DOT Class: -325 mesh flammable solid

UN Number: 1325

IMCO Class: 4.3

Other:

The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control, the Kurt J. Lesker Company makes no warranty, either express or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon: User should satisfy himself that he had all current data relevant to his particular use.

ND = NO DATA FOUND

NA = NOT APPLICABLE