

MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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SECTION 1 Product Identification

CHEMICAL NAME: Zirconium carbide
CAS #: 12070-14-3
FORMULA: ZrC

SECTION 2 Composition and Information on Ingredients

INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	12070-14-3	100	5mg/m3 (as Zr)	5mg/m3 (as Zr)

SECTION 3 Hazards Identification

EMERGENCY OVERVIEW: May be irritating to skin, eyes and mucous membranes.

PRIMARY ROUTES OF EXPOSURE: Ingestion

EYE CONTACT: May cause mild to moderate irritation of the eyes.

SKIN CONTACT: May cause slight to mild irritation of the skin.

INHALATION: Dust may be irritating to the nose, mucous membranes and respiratory tract.

INGESTION: No information is available on the physiological effects of ingestion.

CHRONIC HEALTH EFFECTS: No information available on long-term chronic effects.

ACUTE HEALTH EFFECTS: May be irritating to skin, eyes and respiratory tract.

SECTION 4 First Aid Measures

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 Firefighting Measures

FLASH POINT: no data

AUTO IGNITION TEMPERATURE: no data

EXPLOSION LIMITS: no data

EXTINGUISHING MEDIUM: Carbon dioxide or dry powder

SPECIAL FIREFIGHTING PROCEDURES: If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: If involved in a fire this material may release toxic and corrosive fumes.

UNUSUAL FIRE OR EXPLOSION HAZARDS: No unusual fire or explosion hazards.

SECTION 6 Accidental Release Measures

SPILL AND LEAK PROCEDURES: Sweep up the solids and dispose of properly.

SECTION 7 Handling and Storage

HANDLING AND STORAGE: Store material in a tightly sealed container . Keep away from heat.

SECTION 8 Exposure Controls and Personal Protection

EYE PROTECTION: Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.

SKIN PROTECTION: Chemical-resistant.

VENTILATION: If possible, handle the material in an efficient fume hood.

RESPIRATOR: If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

SECTION 9 Physical and Chemical Properties

COLOR AND FORM: 3 micron black powder

MOLECULAR WEIGHT: 103.23

MELTING POINT (DEG. C.): no data

BOILING POINT: 5100^o

VAPOR PRESSURE: no data

SPECIFIC GRAVITY: 6.73

SOLUBILITY IN WATER: insoluble

SECTION 10 Stability and Reactivity

STABILITY: air and moisture stable

HAZARDOUS POLYMERIZATION: no hazardous polymerization

CONDITIONS TO AVOID: none

INCOMPATIBILITY: oxidizing agents and halogens

DECOMPOSITION PRODUCTS: carbon monoxide, carbon dioxide and zirconium oxide

SECTION 11 Toxicological Information

RTECS DATA: No information available in the RTECS files.

MUTAGENIC EFFECTS: no data

TETRATOGENIC EFFECTS: no data

CARCINOGENIC EFFECTS: no data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 Ecological Information

ECOLOGICAL INFORMATION: No information available

SECTION 13 Disposal Considerations

DISPOSAL: Dispose of in according to local state and federal regulations.

SECTION 14 Transportation Information

Flammable solid, inorganic, n.o.s., Class 4.1, UN 3178, PG III

SECTION 15 Regulatory Information

TSCA: Listed in the TSCA inventory

SARA (TITLE 313): Title compound not listed

SECTION 16 Other Information

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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