



MATERIAL SAFETY DATA SHEET
ZIRCONIUM OXIDE

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SECTION I - Product Identification

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PRODUCT NAME: NON-POROUS ZIRCONIUM OXIDE PARTICLES
FORMULA WT: 123.22
CAS NO.: 1314-23-4
COMMON SYNONYM: ZIRCONIA

MANUFACTURER/SUPPLIER: ZirChrom Separations, Inc.
617 Pierce St.
Anoka, MN 55303
(763)421-5264

EMERGENCY #: Chemtrec (USA): (800) 424-9300

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Precautionary Labeling

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HEALTH - 1
FLAMMABILITY - N/A
REACTIVITY - N/A

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SECTION II - Hazardous Components - NONE

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SECTION III - Physical Data

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BOILING POINT: 4300C VAPOR PRESSURE @ 20C (MM HG): N/A
MELTING POINT: 2680C VAPOR DENSITY (AIR=1): N/A
SPECIFIC GRAVITY: 5.7 EVAPORATION RATE: N/A
(H2O=1) (BUTYL ACETATE=1)
SOLUBILITY(H2O): INSOLUBLE PERCENT VOLATILES BY VOLUME: N/A
APPEARANCE & ODOR: WHITE POWDER OR CRYSTALS

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SECTION IV - Fire and Explosion Hazard Data

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FLASH POINT: NONE
FLAMMABLE LIMITS: UPPER - N/A % LOWER - N/A %
FIRE EXTINGUISHING MEDIA
CO2, DRY CHEMICAL, FOAM
SPECIAL FIRE-FIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS
UNUSUAL FIRE AND EXPLOSION HAZARDS - NONE INDICATED

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SECTION V - Health Hazard Data

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THRESHOLD LIMIT VALUE (TLV/TWA): TLV - 5 MG/M3 (AS ZR) IDLH - 500 MG/M3
EFFECTS OF OVEREXPOSURE LUNG, SKIN GRANULOMAS; ALLERGIC REACTION.
AVOID SKIN CONTACT AND INHALATION
EMERGENCY AND FIRST AID PROCEDURES
EYES: FLUSH IMMEDIATELY AND THOROUGHLY WITH WATER
SKIN: WASH WITH SOAP AND WATER
INHALATION: REMOVE TO FRESH AIR; GIVE ARTIFICIAL RESPIRATION IF
NECESSARY.

INGESTION: GIVE ONE OR TWO GLASSES OF WATER AND INDUCE VOMITING IF
CONSCIOUS.
GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE

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SECTION VI - Reactivity Data

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STABILITY: STABLE
INCOMPATIBLES: OXIDIZERS, AVOID STRONG OXIDIZERS, ZRCL₄, ALKALI METALS,
DECOMPOSITION PRODUCTS: NONE

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SECTION VII - Spill and Disposal Procedures

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NO FURTHER SAFETY OR ENVIRONMENTAL CONSIDERATIONS FOR ACCIDENTAL
RELEASE. DISPOSE OF IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH
LOCAL AND NATIONAL REGULATIONS.

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SECTION VIII - Protective Equipment

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HANDLING AND TRANSFER SHOULD BE MADE WITHIN AN APPROVED FUME HOOD OR
WITH ADEQUATE VENTILATION. WEAR DUST MASK OR CARTRIDGE RESPIRATOR.
GLOVES SHOULD BE WORN

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SECTION IX - Storage and Handling Precautions

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STORE IN A DRY AREA

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N/A = Not Applicable

The information published in this Material Safety Data Sheet has been compiled
from our experience and data presented in various technical publications. It is
the user's responsibility to determine the suitability of this information for
adoption of necessary safety precautions. We reserve the right to revise
Material Safety Data Sheets periodically as new information becomes available.