

MATERIAL SAFETY DATA SHEET ZirChrom®-ProTain®

SECTION I - Product Identification _____ PRODUCT NAME: ZirChrom® -ProTain® FORMULA: ZRO₂ 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 ______ Precautionary Labeling HEALTH - 1 FLAMMABILITY - N/A REACTIVITY - N/A SECTION II - Hazardous Components - NONE SECTION III - Physical Data 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 ($H_2O=1$) (BUTYL ACETATE=1) SOLUBILITY(H2O): INSOLUBLE PERCENT VOLATILES BY VOLUME: N/A APPEARANCE & ODOR: WHITE POWDER OR CRYSTALS ______ SECTION IV - Fire and Explosion Hazard Data 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 ______ SECTION V - Health Hazard Data _____ 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 _____ SECTION VI - Reactivity Data ______ STABILITY: STABLE DECOMPOSITION PRODUCTS: NONE _____ SECTION VII - Spill and Disposal Procedures -----NO FURTHER SAFETY OR ENVIRONMENTAL CONSIDERATIONS FOR ACCIDENTAL RELEASE. DISPOSE OF IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH LOCAL AND NATIONAL REGULATIONS. ______ SECTION VIII - Protective Equipment 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** SECTION IX - Storage and Handling Precautions _____ STORE IN A DRY AREA ______

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.

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