SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: Zirconium, Sponge
PRODUCT NUMBER: 3904
CAS NUMBER: 7440-67-7
MANUFACTURER:
Prochem, Inc.
826 Roosevelt Road
Rockford, IL 61109
PHONE: 815-398-1788
FAX: 815-398-1810
TOLL FREE: 800-795-8788

IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram

Signal Word Danger

Hazard Statements

H250 Catches fire spontaneously if exposed to air.
H260 In contact with water releases flammable gases which may ignite spontaneously.

Precautionary Phrases

P210 Keep away from heat/sparks/open flames/hot surfaces.
P222 Do not allow contact with air.
P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P231+P232 Handle under inert gas. Protect from moisture.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P402+P404 Store in a dry place. Store in a closed container.

HMIS CLASSIFICATION:
Health: 1 Chronic: * Fire: 3 Reactivity Hazard: 2

NFPA RATING:
Health: 1 Flammability: 3 Reactivity Hazard: 2
SECTION 2  HAZARDS IDENTIFICATION (Cont.)

EYE CONTACT: May cause eye irritation.
SKIN CONTACT: May cause skin irritation.
INHALATION: May cause respiratory tract irritation.
INGESTION: May cause irritation to the mouth, throat, and esophagus.

SECTION 3  COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Zr
Molecular Weight: 91.22

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<tr>
<th>CHEMICAL NAME</th>
<th>CAS#</th>
<th>%</th>
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<td>Zirconium</td>
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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 to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
INGESTION: Seek medical attention immediately. Keep victim calm. Give victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5  FIREFIGHTING MEASURES

FLASH POINT: Not available
AUTO IGNITION TEMPERATURE: Spontaneously flammable in air.
EXPLOSION LIMITS: Not available
EXTINGUISHING MEDIUM: Use special powder or sand for metal fires. Do NOT use water. Contact with water liberates flammable gases.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Zirconium oxides

SECTION 6  ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust. Keep away from sources of ignition.
ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Sweep up and place in suitable container for proper disposal.

SECTION 7  HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Avoid formation of dusts and aerosols. Keep away from sources of ignition.
CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Never allow product to get in contact with water during storage. Handle and store under inert gas.
SECTION 8    EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

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<th>Exposure Limits</th>
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<tr>
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<td>10 mg/m³**</td>
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*Long-term value   **Short-term value

TLV: Threshold Limit Value over 8 hours of work.
PEL: Permissible Exposure Limit
TWA: Time-Weighted Average

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.
SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.
VENTILATION: Provide local exhaust, preferably mechanical.
RESPIRATOR: Use an approved respirator.
ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9    PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Solid
ODOR: None
MOLECULAR WEIGHT: 91.22
BOILING POINT: 3577°C
MELTING POINT: 1855°C
SPECIFIC GRAVITY: 6.506 gm/ml
SOLUBILITY: Insoluble

SECTION 10    STABILITY AND REACTIVITY

STABILITY: In contact with water release flammable gases which may ignite spontaneously. Catche fire spontaneously if exposed to air.
HAZARDOUS POLYMERIZATION: Reacts violently with water.
CONDITIONS TO AVOID: Exposure to heat. Contact of dried powder with air may result in auto ignition.
INCOMPATIBILITY: Oxidizing agents, air, copper oxide, halogens, halocarbons, strong bases, water, strong acids, hydrogen fluoride, phosphorous, and oxygen.
DECOMPOSITION PRODUCTS: Zirconium oxides

SECTION 11    TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – Rat – >5000mg/kg
CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.
MUTAGENIC EFFECTS: Not available
TETRATOGENIC EFFECTS: Not available
CHRONIC TOXICITY: Not available
RTECS: ZH7070000

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

SECTION 12    ECOLOGICAL DATA

No information available
SECTION 13    DISPOSAL CONSIDERATIONS

Dispose of in accordance to local, state, and federal regulations.

SECTION 14    TRANSPORTATION DATA

UN2008
Zirconium powder, dry
CLASS 4.2
PG II

Marine Pollutant: No

SECTION 15    REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory
SARA 302/304: Not Listed
SARA 311/312: Reactivity Hazard, Chronic Health Hazard
SARA (TITLE 313): Not Listed
CALIFORNIA PROP. 65: Not Listed
MASSACHUSETTS RIGHT TO KNOW COMPONENTS: Zirconium pyrophoric
NEW JERSEY RIGHT TO KNOW COMPONENTS: Zirconium pyrophoric
PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Zirconium pyrophoric

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.
DATE PREPARED: 05/15
SDS DEPT.