SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: Germanium (IV) Methoxide
PRODUCT NUMBER: 1924-1
CAS NUMBER: 992-96-1
SYNONYMS: Tetramethoxygermanium

MANUFACTURER: Prochem, Inc.
826 Roosevelt Road
Rockford, IL 61109
PHONE: 815-398-1788
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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

H226 Flammable liquid and vapor.
H301+H311+H331 Toxic if swallowed, in contact with skin, or if inhaled
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary Phrases

P210 Keep away from heat/sparks/open flames/hot surfaces.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P242 Use only non-sparking tools.
P260 Do not breathe dust or mist.
P270 Do not eat, drink, or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
SECTION 2   HAZARDS IDENTIFICATION (Cont.)

P304+P340  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P361  Remove/take off immediately all contaminated clothing.
P370+P378  In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403+P233  Store in a well-ventilated place. Keep container tightly closed.

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

NFPA RATING:
Health: 3  Flammability: 2  Reactivity Hazard: 1

EYE CONTACT: Strong irritating effect. May cause burns. Risk of serious damage to the eyes.
SKIN CONTACT: Irritating effect on skin. Toxic if absorbed through the skin.
INHALATION: Irritating effect to respiratory system. Toxic if inhaled.
INGESTION: Irritating effect. Toxic if swallowed.

SECTION 3   COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Ge(OCH₃)₄
Molecular Weight: 196.78

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<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS#</th>
<th>%</th>
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<tr>
<td>Germanium (IV) Methoxide</td>
<td>992-96-1</td>
<td>100</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 soap and plenty of water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.
INHALATION: Remove to fresh air and keep at rest. 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: 41°C
AUTO IGNITION TEMPERATURE: Not available
EXPLOSION LIMITS: Not available
EXTINGUISHING MEDIUM: Use carbon dioxide, extinguishing powder, or water spray. Fight large fires with water spray or alcohol resistant foam.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Carbon oxides and germanium 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. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

GERMANIUM (IV) METHOXIDE
SECTION 6 ACCIDENTAL RELEASE MEASURES (Cont.)

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Keep away from ignition sources, water, and moisture. Sweep up and keep in suitable, closed containers for disposal. Ventilate area.

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 – no smoking. Take measures to prevent the build up of electrostatic charge. Fumes can combine with air to form an explosive mixture.
CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Store away from oxidizing agents, water, and moisture. Keep away from sources of ignition.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS: Contains no substances with occupational exposure limit values.
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: Clear liquid
ODOR: Like alcohol
MOLECULAR WEIGHT: 196.73
BOILING POINT: 145° C
MELTING POINT: -18° C
SPECIFIC GRAVITY: 1.325 gm/ml
VAPOR DENSITY: 1.325
SOLUBILITY: Decomposes with water, soluble in hydrocarbons and ethanol

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: Heat, flames, and sparks; all sources of ignition, contact with water, moisture, and humid conditions.
INCOMPATIBILITY: Oxidizing agents, water, moisture, alcohols, ketones, and esters
DECOMPOSITION PRODUCTS: Carbon oxides and germanium oxides.

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: Not available
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
TETRATOGNIC EFFECTS: Not available
CHRONIC TOXICITY: Germanium compounds generally have a low order of toxicity. The anion and compound reactivity may contribute the greater part of toxicity.
RTECS: No data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.
SECTION 12  ECOLOGICAL DATA

No data available.

SECTION 13  DISPOSAL CONSIDERATIONS

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

SECTION 14  TRANSPORTATION DATA

DOT: UN2929  IATA: UN2929
  Toxic liquids, flammable, organic, n.o.s.  Toxic liquid, flammable, organic, n.o.s.
  (Germanium (IV) Methoxide)  (Germanium (IV) Methoxide)
  CLASS 6.1 (3)  CLASS 6.1 (3)
  PG II  PG II

Marine Pollutant: No

SECTION 15  REGULATORY INFORMATION

TSCA: No data
SARA 302/304: Not Listed
SARA 311/312: Fire Hazard, Acute Health Hazard, Chronic Health Hazard.
SARA (TITLE 313): Not Listed
CALIFORNIA PROP. 65: Not Listed
MASSACHUSETTS RIGHT TO KNOW COMPONENTS: No components are subject to the Massachusetts Right to Know Act.
NEW JERSEY RIGHT TO KNOW COMPONENTS: Germanium (IV) Methoxide
PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Germanium (IV) Methoxide

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: 01/15
SDS DEPT.