

## Safety Data Sheet

### Section 1. Product and Company Identification

Product Identification: VVOMS  
MSDS Number: VVOMS  
Recommended Use: For Laboratory Use.  
Company Identification: High-Purity Standards  
P.O. Box 41727  
Charleston, SC 29423  
Telephone: (843) 767-7900  
FAX: (843) 767-7906

In case of emergency call INFOTRAC: 800-535-5053

### Section 2. Hazard Identification

**Classification:** None

**Labeling:**

Symbol: None

Signal Word: None

Hazard Statement: None

Precautionary Statement: None

### Section 3. Composition

Component	CAS/EINECS Registry #	Percent Concentration
Vanadium metallo-organic	N/A	0.1
Mineral Oil	8042-47-5/232-455-8	Balance

### Section 4. First Aid Measures

Emergency Overview: Slightly hazardous in case of eye contact (irritant), of ingestion. Non-irritant for skin. Non-hazardous in case of inhalation.

Target Organs: None

Skin/eye Contact: May be harmful if absorbed through skin. May cause skin/eye irritation. Wash off with soap and plenty of water. Flush eyes with water as a precaution.

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation. If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Ingestion: May be harmful if swallowed. Never give anything by mouth to an unconscious person. Rinse mouth with water

### Section 5. Fire Fighting Measures

Fire & Explosion hazards: May be combustible at high temperature. Slightly flammable to flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks.

Extinguishing Media: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Specific Methods: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

<b>Safety Data Sheet No. VVOMS</b>	<b>Date: March 19, 2014</b>	
<b>1000µg/g Vanadium Metallo-Organic Standard</b>	<b>Revision: new</b>	<b>Page 2 of 3</b>

#### Section 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Always dispose of in accordance with local regulations.

#### Section 7. Handling and Storage

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe gas/fumes/ vapor/spray. Keep away from incompatibles such as oxidizing agents. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C (75.2°F).

#### Section 8. Exposure Controls and Personal Protection

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.  
 Personal Protection: Wear proper gloves, safety glasses with side shields, lab coat/apron.

#### Exposure Limits:

Component	ACGIH STEL
Vanadium metallo-organic	N/A
Mineral Oil	10 (mg/m <sup>3</sup> ) as oil mist

#### Section 9. Physical and Chemical Properties

Physical State: Liquid  
 Color: Clear, colorless liquid  
 Odor: Odorless  
 Odor threshold: None  
 pH: N/A  
 Melting point: N/A  
 Freezing Point: N/A  
 Boiling Point: >338 °C  
 Flash point: CLOSED CUP: 168.33°C (335°F).  
 Evaporation rate: N/A  
 Flammability: N/A  
 Explosion limits: N/A  
 Vapor Pressure (mm): <0.1 mm Hg  
 Vapor Density (air+1): N/A  
 Relative density: (H<sub>2</sub>O = 1): 0.862 g/cm<sup>3</sup> at 25 °C (77 °F)  
 Solubility in H<sub>2</sub>O: Insoluble in cold water. Soluble in hydrocarbons.  
 Auto ignition temperature: N/A  
 Decomposition temperature: N/A  
 Molecular Weight: 50.94 (V)

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#### Section 10. Stability and Reactivity

Stability Indicator: YES

Conditions to Avoid: Sources of ignition and high temperatures

Incompatibles: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide.

Hazardous Polymerization: Does not polymerize.

#### Section 11. Toxicological Information

Toxicity Data:

RTECS #: (Mineral Oil) PY8047000

#### Section 12. Ecological Information

Ecotoxicological information: No information found.

#### Section 13. Disposal Considerations

General: Follow Federal, state and local regulations for waste.

#### Section 14. Transport Information

D.O.T. Classification: Not hazardous by DOT regulations

#### Section 15. Regulations (Not meant to be all inclusive-selected regulation listed)

TSCA Status: The components of this solution are listed on the TSCA Inventory.

RCRA Status: No

SARA: No

WHMIS Information (Canada): None

#### Section 16. Other Information

HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel only. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The MSDS was prepared carefully and represents the best data currently available to us; however, HPS does not certify the data on the MSDS. Certified values for this material are given only on the Certificate of Analysis.

Theodore C. Rains, Ph.D.