

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Silver Vanadium Oxide

Chemical Formula: $\text{Ag}_2\text{V}_4\text{O}_{11}$

Manufacturer Item Number: SI-4750

Manufacturer: Lorad Chemical Corporation
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2. HAZARD IDENTIFICATION

Signal Word: Danger

Pictograms:



Hazard Statements: H301+311+331 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 Statements: P261 Avoid breathing dust / fumes / gas / mist / vapors / spray.
P264 Wash skin thoroughly after handling.
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 / eyes protection / face protection.
P301+310 IF SWALLOWED: Immediately call a POISON CENTER or physician.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or physician if you feel unwell.
P312 Call a POISON CENTER or physician if you feel unwell.
P322 Specific measures (see supplemental first aid instructions on label).
P330 Rinse mouth.
P332+313 If skin irritation occurs: Get medical advice / attention.
P337+313 If eye irritation persists: Get medical advice / attention.
P361 Remove / take off immediately all contaminated clothing.
P403+233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents / container to an approved waste disposal plant.

HMIS Health Ratings (0-4)

- Health: 2*
- Flammability: 0
- Physical: 0

3. COMPOSITION

Additional Names: No Data Available

Percentage: 100wt%

CAS #: 12026-36-7

EC #: No Data Available.

4. FIRST AID PROCEDURES

General Treatment Consult a physician. Show this SDS to the doctor in attendance. Move out of dangerous area.

Special Treatment: No Data Available.

Important Symptoms: No Data Available.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Skin: Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

5. FIREFIGHTING MEASURES

Flammability: Not Flammable.

Special Hazards from Substance: Silver / Silver Oxides, Vanadium / Vanadium Oxides

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled: Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains, sewers, or watercourses.

7. HANDLING AND STORAGE

Handling Conditions: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventative fire protection. See Section 2 for precautions.

SAFETY DATA SHEET

Storage Conditions:	Keep container tightly closed in a dry and well-ventilated place.
Work / Hygienic Maintenance:	Handle in accordance with good industrial hygiene and safety practices. Do not eat, drink, or smoke when using this product.
Ventilation:	Ensure adequate ventilation. Provide appropriate exhaust ventilation at places where dust is formed.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits:	NIOSH: 0.05 mg/m ³ (15 minute ceiling value)
Threshold Limit Value:	No Data Available.
Special Equipment:	No Data Available.
Respiratory Protection:	Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Protective Gloves:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Eye Protection:	Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
Body Protection:	Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Color:	Orange
Forms:	Powder
Odor:	No Data Available.
Water Solubility:	No Data Available.
Boiling Point:	No Data Available.
Melting Point:	No Data Available.
Flash Point:	No Data Available.
Autoignition Temperature:	No Data Available.
Density:	No Data Available.
Molecular Weight:	595.49 g/mol

10. REACTIVITY

Stability:	Stable under recommended storage conditions.
Reacts with:	Strong oxidizing agents

Incompatible Conditions: No Data Available.

Hazardous Decomposition Products: No Data Available.

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

- **Eyes** No Data Available.
- **Skin** No Data Available.
- **Ingestion** No Data Available.
- **Inhalation** May cause respiratory irritation.
- **Chronic** May cause argyria (a slate-gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate of silver).

Signs and Symptoms: Nausea, vomiting, diarrhea, dizziness, weakness, cough, chest pain, difficulty breathing.

Aggravate Medical Conditions: Stomach irregularities (based on human evidence)

Median Lethal Dose: No Data Available.

Carcinogen: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: No Data Available.

Persistence and degradability: No Data Available.

Bioaccumulative potential: No Data Available.

Notes: No Data Available.

13. DISPOSAL CONSIDERATIONS

Disposal: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

14. TRANSPORTATION DATA

Hazardous: Hazardous for Transportation

Pictogram:



Hazard Class: 6.1 Toxic substances

SAFETY DATA SHEET

Packing Group:	III
UN Number:	UN3285
Proper Shipping Name:	DoT: Vanadium compound, n.o.s. (Silver Vanadium Oxide) Marine Pollutant: yes Poison Inhalation Hazard: no IMDG: VANADIUM COMPOUND, n.o.s. (Silver Vanadium Oxide) EMS-No: F-A, S-A Marine Pollutant: yes IATA: Vanadium compound, n.o.s. (Silver Vanadium Oxide)

15. REGULATORY INFORMATION

SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components	The following components are subject to the reporting levels established by SARA Title III, Section 313: Silver Vanadium Oxide (CAS No. 13497-94-4)
SARA 311/312 Hazards	Acute Health Hazard, Chronic Health Hazard
Massachusetts Right to Know Components	No components are subject to the Ma. Right to Know Act.
Pennsylvania Right to Know Components	The following components are known to the State of Pennsylvania as environmental hazards: Vanadium (fume or dust) Silver (CAS No. 744-22-4)
New Jersey Right to Know Components	Silver Vanadium Oxide (CAS No. 13497-94-4)
California Prop. 65 Components	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Copyright 2017 Lorad Chemical Corporation. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. The information in this sheet does not represent a guarantee of the properties of the product. Lorad Chemical Corporation and its Affiliates make no warranty with respect to the accuracy of the information or the suitability of this product for any particular application, and shall not be held liable for any damage resulting from handling or from contact with the above product.

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