

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Identifier: (5N) 99.999% Yttrium Vanadate

Product Code: Y-VO-05-C

CAS Number: 13566-12-6

Relevant identified uses of the substance: Scientific research and development

Supplier details:

American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
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Emergency telephone number:
+1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity Category 4

Acute Inhalation Toxicity - Dusts and Mists Category 4

Serious Eye Damage/Eye Irritation Category 2

Specific target organ toxicity (single exposure) Category 3

Target Organs - Respiratory system.

Label Elements



Signal Word

Warning

Hazard Statements

Causes serious eye irritation

May cause respiratory irritation

Harmful if swallowed or if inhaled

Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear eye/face protection
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
Ingestion
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
None identified

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family:
Ceramic
Additional Names:
Yttrium vanadium oxide, Yttrium orthovanadate
Yttrium vanadate (YVO₄):
Percentage: 100 wt%
CAS#: 13566-12-6
EC #: 236-965-1

SECTION 4. FIRST AID MEASURES

General Treatment:
Seek medical attention if symptoms persist.
Special Treatment:
None
Important Symptoms:
None
Inhalation:
Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion:
Seek medical attention
Skin:
Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes:
Flush eyes with water, blinking often for several minutes.
Remove contact lenses if present and easy to do. Continue rinsing

SECTION 5. FIREFIGHTING MEASURES

Flammability:

Non-flammable

Extinguishing Media:

No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.

Spec. Fire Fighting Procedure:

Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes.

See section 10 for decomposition products.

SECTION 6. ACCIDENTAL RELEASE MEASURES

If Material Is Released/Spilled:

Wear appropriate respiratory and protective equipment specified in special protection information.

Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal.

Take care not to raise dust.

Environmental Precautions:

Isolate runoff to prevent environmental pollution.

SECTION 7. HANDLING AND STORAGE

Handling Conditions:

Handle under dry protective gas.

Wash thoroughly after handling.

Storage Conditions:

Store in a cool dry place in a tightly sealed container.

Store under dry inert gas.

Store apart from materials and conditions listed in section 10.

Work/Hygienic

Maintenance:

Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

Ventilation:

Provide sufficient ventilation to maintain concentration at or below threshold limit.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Permissible Exposure Limits:N/A

Threshold Limit Value: N/A

Special Equipment:

None

Respiratory Protection:

Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls.

Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.

Protective Gloves:

Nitrile rubber, NBR 0.11mm thick.

Eye Protection:

Safety glasses or goggles

Body Protection:

Protective work clothing. Wear close-toed shoes and long sleeves/pants.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Color: N/A

Form: Powder, Granules, Pellets, Sputtering target, Custom parts

Odor: Odorless

Water Solubility: Insoluble

Boiling Point: N/A

Melting Point: N/A

Flash Point: N/A

Autoignition Temperature: N/A

Density: 4.24g/cc

Molecular weight: 203.85g/mol

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions

Reacts With: Mineral acids, Oxidizing agents

Incompatible Conditions: Water/moisture

Hazardous Decomposition Products: Metal oxide fume

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: May cause irritation

Skin: May cause irritation

Ingestion: Harmful

Inhalation: Toxic

Chronic: N/A

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

Median Lethal Dose: N/A

Carcinogen: N/A

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity: High

Persistent Bioaccumulation Toxicity: No

Very Persistent, Very Bioaccumulative: No

Notes:

Very toxic for aquatic organism.

May cause long lasting harmful effect on aquatic life.

Do not allow material to be released to the environment without proper governmental permits.

Do not allow product to reach any water sources.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies
Avoid transfer into the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, national, and international regulations.

SECTION 14. TRANSPORT INFORMATION

Hazardous:
Hazardous for transportation as powder.
Hazard Class: 6.1 Toxic substances
Packing Group: III
UN Number: UN3285
Proper Shipping Name:
Vanadium compound, n.o.s (Yttrium vanadate)

SECTION 15. REGULATORY INFORMATION

Sec 302 Extremely Hazardous:
No
Sec 304 Reportable Quantities:
N/A
Sec 313
Toxic Chemicals: Yes (Vanadium oxide)

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). 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 is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.