

Material Safety Data Sheet

SECTION I

PRODUCT NAME OR NUMBER (AS IT APPEARS ON LABEL):

AR 636 Vanadium Pentoxide
"FUSED FORM"

MANUFACTURER: Alpha Resources, Inc. TELEPHONE: 269-465-5559
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Stevensville, MI 49127

MANUFACTURER'S DUNNS NO. 08 383 8045

HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD
CLASSES, HAZARD ID NO:

Vanadium-pentoxide, "FUSED FORM"

CHEMICAL FAMILY: Vanadic Anhydride, vanadium oxide.

FORMULA: V2O5

SECTION II - INGREDIENTS (LIST ALL INGREDIENTS)

CAS REGISTRY NO.	%W	CHEMICAL NAMES	LISTED AS A CARCINOGEN IN NTP, IARC OR OSHA 1910 (Z) SPECIFY
1314-62-1	> 99	Vanadium Pentoxide	no

SECTION III - PHYSICAL DATA

Boiling point: decomposes at 3182F SPECIFIC GRAVITY = 3.36
(WATER = 1)

% Volatile by volume: N/A

Vapor pressure: N/A

Percent solid(s) by weight % = 100

Vapor density (air = 1): N/A

Evaporation rate: essentially zero

Solubility in water: 0.8 g./100cc at 68 F pH N/A

Melting point: 1274 Deg. F.

Material is Powder

Appearance and odor: YELLOW-ORANGE GRANULES

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash point: N/A

Flammable limits: LEL: N/A

UEL: N/A

Extinguishing media: No fire hazard. Use extinguishing media suitable for type of surrounding fire.

Special fire fighting procedures: Avoid procedures that may create dust. When fighting fire that may create dust, wear full protective equipment including positive pressure breathing apparatus.

Unusual fire and explosion hazards: none

SECTION V HEALTH HAZARD DATA

Threshold Limit Value:

0.5 mg V2O5 dust/cu m, ceiling (1)

0.1 mg V2O5 fume/cu m, ceiling (1)

0.5 mg V/cu m (V2O5 dust) (2)

0.05 mg V/cu m, ceiling (V2O5 fume) (2)

0.05 mg V2O5/cu m (respirable dust or fume) (3)

0.05 mg V/cu m, 15 min. ceiling (V compounds) (4)

(1) OSHA Standard 1910

(2) MSHA Standard

(3) Current ACGIH

(4) NIOSH Recommendation

Effects of overexposure: INHALATION: Breathing dust and fumes can irritate the respiratory tract and cause chest tightness, wheezing, and coughing.

SKIN CONTACT: Harmful amounts may be absorbed through the skin. Contact may cause local irritation with reddening and itching.

EYE CONTACT: May cause moderate to severe eye irritation and possible corneal injury.

SWALLOWING: May cause abdominal discomfort such as nausea, vomiting or cramps. Also may cause harmless greenish-black discoloration of the tongue.

EXTREME OR REPEATED OVEREXPOSURE FROM VANADIUM PENTOXIDE MAY RESULT IN CHRONIC BRONCHITIS AND ALLEGEDLY CAUSES ALLERGIC SKIN REACTION OR ASTHMATIC REACTION WITH POSSIBLE LUNG INJURY IN SUSCEPTIBLE INDIVIDUALS. WHEN EXPOSURE CEASES, EFFECTS ARE USUALLY REVERSIBLE.

Primary routes of entry: Inhalation Skin Contact Swallowing

Emergency and first aid procedures: INHALATION: Leave dusty area and get fresh air. Help breathing if necessary.

SKIN: Wash with soap and water. See a physician if irritation occurs.

EYES: Flush with water for 10-20 minutes to make sure no particles remain

in the eye. See a physician, preferably an ophthalmologist, promptly.
SWALLOWING: Give at least two glasses of water. Induce vomiting if the patient is conscious and call a physician.

SECTION VI REACTIVITY DATA

Stability: Stable. Soluble in hot water and concentrated acids and alkalis. Reacts with chlorine or hydrochloric acid to form vanadium oxytrichloride.

Conditions to avoid: none

Incompatibility: (material to avoid): Keep dry. Vanadium pentoxide absorbs moisture from the air.

Hazardous decomposition products: none

Hazardous polymerizations: N/A

Conditions to avoid: N/A

SECTION VII SPILL OR LEAK PROCEDURE

Steps to be taken in case material is released or spilled:
Material should be swept up or vacuumed, using ventilation to control the level of airborne dust. Avoid using compressed air or any method that creates airborne dust. If cleanup may create airborne dust, personnel should wear skin and eye protection as well as respiratory protection.

Waste disposal: This material contains vanadium pentoxide which is listed in 40 CFR 302, Table 302.4, "List of Hazardous Substances and Reportable Quantities" with a reportable quantity of 1000 pounds, and listed as an acute hazardous waste (P-120) under 40 CFR 261.33(e). Some states have more restrictive listings. Dispose of discarded product, container, liner material, or spill residue in accordance with federal, state and local regulations. Do not use procedures that generate dust.

Comply with state, federal, and local regulations.

SECTION VIII SPECIAL PROTECTION

Eye protection: Dust resistant safety glasses should be worn. Facilities to flush the eyes with water should be readily available.

Skin protection: Gloves should be worn. Avoid contamination of clothing with dust. Protective clothing should be worn in dusty areas.

Respiratory protection: Use NIOSH/MSHA-approved respirators in dusty areas.

Ventilation: Provide sufficient ventilation to keep exposure to dust below permissible exposure limits.

Eye Protection: Wear dust-resistant safety glasses with side shields. Facilities to flush the eyes with water should be readily available.

Other Clothing and Equipment: Protective gloves are recommended for handling material. As with other metal dusts, avoid contamination of work clothing.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storing and/or other precautions:

Handling and Storage: Materials should be kept dry and in closed containers. Personnel should clean up after handling the product and avoid areas where fume or dust is present.

Other precautions: Carcinogen listing:

National Toxicology Program Annual Report (NTP): Not listed
International Agency for Research on Cancer (IARC): Not listed
OSHA 29 CFR Part 1910, Subpart Z: Not listed

Emergency Release Notification: Vanadium pentoxide is listed under SARA III - Section 304 (40 CFR 355) with a threshold planning quantity (TPQ) of 100/10,000 pounds.

SUPPLEMENTAL INFORMATION

The data and information as stated was furnished by the manufacturer/vendor &/or supplier of this product. Alpha Resources, Inc. cannot warrant the accuracy of this information and shall not be responsible or liable for any damage that may result, should any of the information be erroneous.

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