



SAFETY DATA SHEET

MATERION

1. Product and company identification

Product name Vanadium Oxide (V2O3)
Manufacturer/Supplier Materion Advanced Chemicals Inc.
Address 407 N. 13th Street
1316 W. St. Paul Avenue
Milwaukee, WI 53233
United States
Telephone 414.212.0257
e-mail advancedmaterials@materion.com
Contact person Noreen Atkinson
Emergency telephone number

Recommended use and Limitations on use

Recommended use Not available.
SDS number V-MSDS0031

2. Hazards identification

GHS classification

Physical hazards Not classified.
Health hazards Acute toxicity, oral Category 3
Acute toxicity, dermal Category 2
Acute toxicity, inhalation Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2B
Specific target organ toxicity following single exposure Category 3 respiratory tract irritation
Environmental hazards Not classified.

Label elements

Symbols None.
Signal word None.
Hazard statement None.

3. Composition/information on ingredients

Substance or mixture Substance

Chemical property	CAS Number	Concentration (%)
vanadium oxide	1314-34-7	100
Vanadium Oxide		

4. First aid measures

Inhalation Not available.
Skin contact Not available.
Eye contact Not available.
Ingestion Not available.
Potential delayed effects Not available.
Personal protection for first-aid responders Not available.
Notes to physician Not available.

5. Fire-fighting measures

Extinguishing media Not available.
Extinguishing media to avoid None.
HAZCHEM Code Number None.

Specific hazards during fire fighting	None.
Special fire fighting procedures	Not available.
Protection of fire-fighters	Not available.
Hazards from combustion products	None.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Not available.
Environmental precautions	Not available.
Spill cleanup methods	Not available.

7. Handling and storage

Handling

Precautions	Not available.
Safe handling advice	Not available.
Prevention of fire and explosion	Not available.

Storage

Suitable storage conditions	Not available.
Incompatible materials	Not available.

8. Exposure controls/personal protection

Exposure limits

No exposure limits noted for ingredient(s).

Biological limit values No biological exposure limits noted for the ingredient(s).

Engineering controls

Personal protective equipment

Respiratory protection	Not available.
Skin protection	Not available.
Eye/face protection	Not available.
Radioactive or thermal hazards	Not available.
Hygiene measures	Not available.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Not available.
Colour	Not available.

Odour Not applicable.

Odour threshold Not available.

pH Not available.

Melting point/freezing point 1940 °C (3524 °F)

Boiling point, initial boiling point, and boiling range Not available.

Flash point Not available.

Auto-ignition temperature Not available.

Flammability (solid, gas) Not applicable.

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit – upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Evaporation rate	Not available.
Relative density	Not available.
Density	4.87 g/cm ³
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Molecular weight	149.88 g/mol
Other data	
Molecular formula	O3-V2
Specific gravity	4.87

10. Stability and reactivity

Stability	None.
Conditions to avoid	None.
Incompatible materials	None.
Hazardous decomposition products	None.
Possibility of hazardous reactions	None.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Not available.
Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.

Product	Species	Test results
vanadium oxide (CAS 1314-34-7)		
Acute		
Dermal		
LD50	Rat	> 2500 mg/kg
Inhalation		
LC50	Rat	4 mg/l, 4 Hours
Oral		
LD50	Mouse	130 mg/kg
Routes of exposure	Not available.	
Symptoms	Not available.	
Skin corrosion/irritation	Not available.	
Serious eye damage/eye irritation	Not available.	
Skin sensitiser	Not available.	
Chronic effects	Not available.	
Relevant negative data	Not available.	

12. Ecological information

Ecotoxicity	Not available.
Persistence and degradability	Not available.
Bioaccumulation	Not available.
Partition coefficient n-octanol/water (log Kow)	Not available.

Material name: Vanadium Oxide (V2O3)

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Bioconcentration factor (BCF) Not available.

Mobility Not available.

Other hazardous effects Not available.

13. Disposal considerations

Disposal methods/information Not available.

Special precautions Not available.

14. Transport information

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

Applicable regulations

New Zealand Inventory of Chemicals (NZIoC): Registration status

vanadium oxide (CAS 1314-34-7)

May be used as a component in a product covered by a group standard but it is not approved for use as a chemical in its own right.

16. Other information

References Not available.

Issued by

Not available.

Prepared by

Not available.

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