

# BATH POTTERS SUPPLIES

## MATERIAL SAFETY DATA SHEET

(cosh72)

### 1. Identification of the preparation/Supplier reference

Trade Name **Vanadium Pentoxide**

Chemical name Vanadium 5 oxide  
Synonyms Divanadium pentaoxide  
Supplier Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate,  
Radstock, Nr. Bath. BA3 4XE  
Emergency numbers Tel: 01761 411077  
E:mail: sales@bathpotters.co.uk

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### 2. Composition

Component	CAS	EINECS	% of composition
Vanadium pentoxide V <sub>2</sub> O <sub>5</sub>	1314-62-1	2152398	>99%

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### 3. Health Hazard Identification

Inhalation Excessive exposure may cause irritation of the respiratory tract and pneumonia  
Ingestion May cause irritation of digestive system, vomiting, diarrhoea, poisoning may affect nervous system, liver, kidney, lungs  
For ingestion & inhalation Symptoms include dry cough, sneezing, headaches, metallic taste, green/black tongue, chest pains, bronchitis, pale complexion, abdominal pain, insomnia, anorexia, nervousness, dizziness, anaemia, tinitus  
For severe acute exposure: If the victim survives, then full recovery follows  
Eyes May cause physical irritation and inflammation  
Skin The material is not a primary irritant, but as with any abrasive powder it may give rise to minor irritation

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### 4. First Aid Measures

Inhalation Remove patient to fresh air, loosen tight clothing and seek medical attention  
Ingestion Do not induce vomiting, seek medical advice. Rinse mouth with water and if conscious get the victim to drink plenty of water.  
Eyes Wash immediately with copious amounts of water. If irritation persists, seek medical attention  
Skin Wash affected areas with plenty of water. Remove contaminated clothing. Seek medical advice

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### 5. Fire Fighting Measures

Extinguishing Media Suitable for surrounding fire conditions. If water is used do not allow run-off to contaminate water courses  
Special Exposure hazard In the event of a fire the product may emit harmful or toxic fumes  
Personal protective equipment Self contained breathing apparatus

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## 6. Accidental Release Measures

Leaks & Spills	Use suitable vacuum equipment where reasonably practicable, otherwise damp down and scoop into a receptacle. If it enters water courses, then notify authorities and neutralise with lime, slacked lime, crushed lime stone or sodium bicarbonate
Personal protective equipment	Respiratory protective equipment

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## 7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material
Storage	Store in a secure container in a dry area

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## 8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is preferable to personal protection.
Personal protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards prEN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

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## 9. Physical & Chemical properties

Appearance & Odour	Orange-yellow powder, odourless
Flash point (°C)	Not applicable
Flammability	Not applicable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	3.5g/cm <sup>3</sup>
pH value	7 (Solubility 0.8% in water)
Melting point (°C)	680°C

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## 10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	Lithium metal and halogen compounds (eg Cl <sub>2</sub> )
Hazardous decomposition products	None known other than V <sub>2</sub> O <sub>5</sub> fumes
Hazardous polymerization products	None

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## 11. Toxicology Information

Acute toxicology	LD50 Oral (rat)	10mg/kg (low therefore serious)
	LD50 dermal	not known
	LD50 inhalation	not known
Health effects	Prolonged or repeated exposure above Occupational Exposure Standards may affect the nervous system, liver, kidney, lungs. Vanadium Pentoxide is classified as:	

12. Ecological information

Ecotoxicity Toxic to aquatic organisms  
 Persistence The product is chemically stable and may cause long term adverse effects in the aquatic environment.

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1996). Landfill is the most appropriate method.

14. Transport Information

UN/SI No. 2862 Vanadium Pentoxide  
 UN Class 6.1  
 Packing group III  
 Road UK Item code 58(b)  
 ADR As above  
 Sea IMO As above  
 Air ICAO As above

15. Regulatory information

EC Supply Labelling **T Toxic Dangerous for the Environment**  
 R-Phrases R20/22 Harmful by inhalation and if swallowed  
 R37 Irritating to respiratory system  
 R40 Possible risk of irreversible effects  
 R48/23 Toxic: Danger of serious damage to health by prolonged exposure through inhalation  
 R51/53 Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.  
 S-Phrases R63 Possible risk of harm to the unborn child  
 S13 keep away from food, drink and animal feeding stuff  
 S20/21 when using do not eat, drink or smoke  
 S22/23 do not breathe dust or spray  
 S36/37 wear suitable protective clothing  
 S38 In case of insufficient ventilation wear suitable respiratory equipment  
 S45 In case of accident or if you feel unwell seek medical advice immediately (show label where possible).  
 S61 Avoid release to the environment. Refer to special instructions/ safety data sheet  
 UK Occupational exposures limits\* Mg/m<sup>3</sup> 8 hr TWA % in product  
 Divanadium pentaoxide(as V) total inhalable 0.5 >99  
 fume and respirable dust 0.04

\* refer to HSE Guidance note EH40

In accordance with HSE Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk

16. Other information

**References**

COSHH ACOP           HSC approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.

CHIP 96                Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.

CHIP SDS ACOPS       HSC Approved Code of Practice for Safety data Sheets in accordance with regulation 6 of the CHIP regulations.

HSE EH40              HSE Guidance note EH40 on Occupational Exposure Limits to be used in conjunction with the COSH regulations.

**Footnote**

**LIABILITY**

Such information is the best of Bath Potters Supplies' knowledge and belief accurate at the date of publication, which is the date generated automatically on the day of printing of this document. However, no representation, warranty of guarantee is made as to its accuracy, reliability of completeness. It is the user's responsibility to satisfy itself as to the suitability and completeness of such information for their own particular use.

**THIRD PARTY MATERIALS**

Insofar as materials not manufactured or supplied by Bath Potters Supplies are used in conjunction with, or instead of Bath Potters Supplies materials, it is the responsibility of the customer itself to obtain from the manufacturer or supplier all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of Bath Potters Supplies materials in conjunctions with other materials.

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17. National Legislation

**UK Legislation**

SI1993/1746 Chemicals (Hazard Information and Packaging) Regulations 1993

Environmental Protection (Duty of Care) regulations 1992 SI 2839

Carriage of Dangerous goods by Road and Rail Regulations 1994

Control of pollution Act 1974

Environmental Protection Act 1990

Highly Flammable Liquids and Petroleum Spirit Regulations 1972

EH40 Occupational Exposure Limits

SI1988/1657 The Control of Substances Hazardous to Health Regulations

Note - This is not an exhaustive list and users should satisfy themselves that they comply with all relevant National Regulations

26.08.21