

# *Chem-Impex International Inc.*

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## SAFETY DATA SHEET

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### SECTION 1. CHEMICAL IDENTIFICATION

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CATALOG #:	24569
NAME:	Vanadium(V) oxide
SYNONYMS:	Vanadium pentoxide
24 HOUR EMERGENCY TELEPHONE:	(800) 535-5053(USA) 352-323-3500 (INTERNATIONAL)
TO REQUEST AN MSDS:	(800) 869-9290
CUSTOMER SERVICE:	(630) 766-2112

### SECTION 2. HAZARDS IDENTIFICATION

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#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

#### GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)

ACUTE TOXICITY, ORAL (CATEGORY 4), H302

ACUTE TOXICITY, INHALATION (CATEGORY 4), H332

SERIOUS EYE DAMAGE (CATEGORY 1), H318

GERM CELL MUTAGENICITY (CATEGORY 2), H341

REPRODUCTIVE TOXICITY (CATEGORY 2), H361

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (CATEGORY 3),  
RESPIRATORY SYSTEM, H335  
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (CATEGORY 1), H372  
ACUTE AQUATIC TOXICITY (CATEGORY 2), H401  
CHRONIC AQUATIC TOXICITY (CATEGORY 2), H411

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE  
SECTION 16.

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS  
PICTOGRAM**



SIGNAL WORD DANGER

**HAZARD STATEMENT(S)**

H302 + H332 HARMFUL IF SWALLOWED OR IF INHALED  
H318 CAUSES SERIOUS EYE DAMAGE.  
H335 MAY CAUSE RESPIRATORY IRRITATION.  
H341 SUSPECTED OF CAUSING GENETIC DEFECTS.  
H361 SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.  
H372 CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.  
H411 TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

**PRECAUTIONARY STATEMENT(S)**

P201 OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.  
P202 DO NOT HANDLE UNTIL ALL SAFETY PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD.  
P260 DO NOT BREATHE DUST/ FUME/ GAS/ MIST/ VAPOURS/ 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.  
P273 AVOID RELEASE TO THE ENVIRONMENT.  
P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE PROTECTION/ FACE PROTECTION.  
P301 + P312 + P330 IF SWALLOWED: CALL A POISON CENTER OR DOCTOR/ PHYSICIAN IF YOU FEEL UNWELL. RINSE MOUTH.  
P304 + P340 + P312 IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP COMFORTABLE FOR BREATHING. CALL A POISON CENTER OR DOCTOR/ PHYSICIAN IF YOU FEEL UNWELL.  
P305 + P351 + P338 + P310 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. IMMEDIATELY CALL A POISON CENTER OR DOCTOR/ PHYSICIAN.  
P308 + P313 IF EXPOSED OR CONCERNED: GET MEDICAL ADVICE/ ATTENTION.  
P391 COLLECT SPILLAGE.  
P403 + P233 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.

**HAZARDS NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS** NONE

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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MF: O<sub>5</sub>V<sub>2</sub>  
MW: 181.88  
CAS-NO. 1314-62-1  
PURITY:

#### HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
<b>VANADIUM PENTOXIDE</b>		
	ACUTE TOX. 4; EYE DAM. 1; MUTA. 2; REPR. 2; STOT SE 3; STOT RE 1; AQUATIC ACUTE 2; AQUATIC CHRONIC 2; H302 + H332, H318, H335, H341, H361, H372, H411	<= 100%

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

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### SECTION 4. FIRST-AID MEASURES

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#### DESCRIPTION OF FIRST AID MEASURES

**GENERAL ADVICE** CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF DANGEROUS AREA.

**IF INHALED** IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.

**IN CASE OF SKIN CONTACT** WASH OFF WITH SOAP AND PLENTY OF WATER. TAKE VICTIM IMMEDIATELY TO HOSPITAL. CONSULT A PHYSICIAN.

<b>IN CASE OF EYE CONTACT</b>	RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND CONSULT A PHYSICIAN.
<b>IF SWALLOWED</b>	NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.
<b>MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED</b>	THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11
<b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b>	NO DATA AVAILABLE

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## **SECTION 5. FIRE AND EXPLOSION DATA**

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### **EXTINGUISHING MEDIA**

<b>SUITABLE EXTINGUISHING MEDIA</b>	USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE.
<b>SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE</b>	VANADIUM/VANADIUM OXIDES
<b>ADVICE FOR FIREFIGHTERS</b>	WEAR SELF-CONTAINED BREATHING APPARATUS FOR FIREFIGHTING IF NECESSARY.
<b>FURTHER INFORMATION</b>	NO DATA AVAILABLE

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

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<b>PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES</b>	USE PERSONAL PROTECTIVE EQUIPMENT. AVOID DUST FORMATION. AVOID BREATHING VAPOURS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. EVACUATE PERSONNEL TO SAFE AREAS. AVOID BREATHING DUST. FOR PERSONAL PROTECTION SEE SECTION 8.
<b>ENVIRONMENTAL PRECAUTIONS</b>	PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP**

PICK UP AND ARRANGE DISPOSAL WITHOUT CREATING DUST. SWEEP UP AND SHOVEL. KEEP IN SUITABLE, CLOSED CONTAINERS FOR DISPOSAL.

**REFERENCE TO OTHER SECTIONS**

FOR DISPOSAL SEE SECTION 13.

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**SECTION 7. HANDLING AND STORAGE**

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**PRECAUTIONS FOR SAFE HANDLING**

AVOID CONTACT WITH SKIN AND EYES. AVOID FORMATION OF DUST AND AEROSOLS. FURTHER PROCESSING OF SOLID MATERIALS MAY RESULT IN THE FORMATION OF COMBUSTIBLE DUSTS. THE POTENTIAL FOR COMBUSTIBLE DUST FORMATION SHOULD BE TAKEN INTO CONSIDERATION BEFORE ADDITIONAL PROCESSING OCCURS. PROVIDE APPROPRIATE EXHAUST VENTILATION AT PLACES WHERE DUST IS FORMED. FOR PRECAUTIONS SEE SECTION 2.2.

**CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES**

KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. STORAGE CLASS (TRGS 510): NON-COMBUSTIBLE, ACUTE TOXIC CAT.3 / TOXIC HAZARDOUS MATERIALS OR HAZARDOUS MATERIALS CAUSING CHRONIC EFFECTS

**SPECIFIC END USE(S)**

APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**CONTROL PARAMETERS**

**COMPONENTS WITH WORKPLACE CONTROL PARAMETERS**

COMPONENT	CAS-NO.	VALUE	CONTROL PARAMETERS	BASIS
VANADIUM PENTOXIDE	1314-62-1	C	0.100000 MG/M3	USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS

		C	0.500000 MG/M3	USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS
	REMARKS	CEILING LIMIT IS TO BE DETERMINED FROM BREATHING-ZONE AIR SAMPLES.		
		TWA	0.050000 MG/M3	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
		UPPER RESPIRATORY TRACT IRRITATION LOWER RESPIRATORY TRACT IRRITATION SUBSTANCES FOR WHICH THERE IS A BIOLOGICAL EXPOSURE INDEX OR INDICES (SEE BEI SECTION) CONFIRMED ANIMAL CARCINOGEN WITH UNKNOWN RELEVANCE TO HUMANS		
		TWA	0.05 MG/M3	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
		UPPER RESPIRATORY TRACT IRRITATION LOWER RESPIRATORY TRACT IRRITATION SUBSTANCES FOR WHICH THERE IS A BIOLOGICAL EXPOSURE INDEX OR INDICES (SEE BEI SECTION) CONFIRMED ANIMAL CARCINOGEN WITH UNKNOWN RELEVANCE TO HUMANS		
		C	0.050000 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		15 MINUTE CEILING VALUE		

**BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS**

COMPONENT	CAS-NO.	PARAMETERS	VALUE	BIOLOGICAL SPECIMEN	BASIS
VANADIUM PENTOXIDE	1314-62-1	VANADIUM	0.0500 MG/G	URINE	
	REMARKS	END OF SHIFT AT END OF WORKWEEK			

**EXPOSURE CONTROLS**

**APPROPRIATE ENGINEERING CONTROLS**

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE. WASH HANDS BEFORE BREAKS AND AT THE END OF WORKDAY.

**PERSONAL PROTECTIVE EQUIPMENT**

<b>EYE/FACE PROTECTION</b>	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).
<b>SKIN PROTECTION</b>	<p>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.</p> <p>FULL CONTACT  MATERIAL: NITRILE RUBBER  MINIMUM LAYER THICKNESS: 0.11 MM  BREAK THROUGH TIME: 480 MIN  MATERIAL TESTED:DERMATRIL (KCL 740, SIZE M)</p> <p>SPLASH CONTACT  MATERIAL: NITRILE RUBBER  MINIMUM LAYER THICKNESS: 0.11 MM  BREAK THROUGH TIME: 480 MIN  MATERIAL TESTED:DERMATRIL (KCL 740, SIZE M)</p> <p>IF USED IN SOLUTION, OR MIXED WITH OTHER SUBSTANCES, AND UNDER CONDITIONS WHICH DIFFER FROM EN 374, CONTACT THE SUPPLIER OF THE CE APPROVED GLOVES. THIS RECOMMENDATION IS ADVISORY ONLY AND MUST BE EVALUATED BY AN INDUSTRIAL HYGIENIST AND SAFETY OFFICER FAMILIAR WITH THE SPECIFIC SITUATION OF ANTICIPATED USE BY OUR CUSTOMERS. IT SHOULD NOT BE CONSTRUED AS OFFERING AN APPROVAL FOR ANY SPECIFIC USE SCENARIO.</p>
<b>BODY PROTECTION</b>	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.
<b>RESPIRATORY PROTECTION</b>	WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULL-FACE PARTICLE RESPIRATOR TYPE N100 (US) OR TYPE P3 (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).

**CONTROL OF ENVIRONMENTAL EXPOSURE**

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

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**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Orange-brown powder
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING POINT/FREEZING POINT	690 °C
INITIAL BOILING POINT AND BOILING RANGE	
FLASH POINT	
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	NO DATA AVAILABLE
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	NO DATA AVAILABLE
VAPOUR PRESSURE	NO DATA AVAILABLE
VAPOUR DENSITY	NO DATA AVAILABLE
RELATIVE DENSITY	
WATER SOLUBILITY	904 G/L AT 20 C - OECD TEST GUIDELINE 105
PARTITION COEFFICIENT: N- OCTANOL/WATER	NO DATA AVAILABLE
AUTO-IGNITION TEMPERATURE	NO DATA AVAILABLE
DECOMPOSITION TEMPERATURE	NO DATA AVAILABLE
VISCOSITY	NO DATA AVAILABLE
EXPLOSIVE PROPERTIES	NO DATA AVAILABLE
OXIDIZING PROPERTIES	THE SUBSTANCE OR MIXTURE IS NOT CLASSIFIED AS OXIDIZING.

**OTHER SAFETY INFORMATION**

SOLUBILITY IN OTHER SOLVENTS      ETHANOL - INSOLUBLE

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**SECTION 10. STABILITY AND REACTIVITY**

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**REACTIVITY**      NO DATA AVAILABLE



<b>CHEMICAL STABILITY</b>	STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
<b>POSSIBILITY OF HAZARDOUS REACTIONS</b>	NO DATA AVAILABLE
<b>CONDITIONS TO AVOID</b>	NO DATA AVAILABLE
<b>INCOMPATIBLE MATERIALS</b>	STRONG ACIDS
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	OTHER DECOMPOSITION PRODUCTS - NO DATA AVAILABLE IN THE EVENT OF FIRE: SEE SECTION 5

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## SECTION 11. TOXICOLOGICAL INFORMATION

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### INFORMATION ON TOXICOLOGICAL EFFECTS

<b>ACUTE TOXICITY</b>	HARMFUL IF SWALLOWED. CLASSIFIED ACCORDING TO REGULATION (EU) 1272/2008, ANNEX VI (TABLE 3.1/3.2) LC50 INHALATION - RAT - FEMALE - 4 H - 2.21 MG/L (OECD TEST GUIDELINE 403) LC50 DERMAL - RAT - > 2,500 MG/KG (OECD TEST GUIDELINE 402)
<b>SKIN CORROSION/IRRITATION</b>	SKIN - IN VITRO ASSAY RESULT: NO SKIN IRRITATION
<b>SERIOUS EYE DAMAGE/EYE IRRITATION</b>	EYES - RABBIT RESULT: RISK OF SERIOUS DAMAGE TO EYES. (OECD TEST GUIDELINE 405)
<b>RESPIRATORY OR SKIN SENSITISATION</b>	NO DATA AVAILABLE
<b>GERM CELL MUTAGENICITY</b>	LABORATORY EXPERIMENTS HAVE SHOWN MUTAGENIC EFFECTS. IN VITRO TESTS SHOWED MUTAGENIC EFFECTS
<b>CARCINOGENICITY</b>	
IARC:	2B - GROUP 2B: POSSIBLY CARCINOGENIC TO HUMANS (VANADIUM PENTOXIDE)
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 NTP.

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 OSHA.
<b>REPRODUCTIVE TOXICITY</b>	POSSIBLE RISK OF CONGENITAL MALFORMATION IN THE FETUS. SUSPECTED HUMAN REPRODUCTIVE TOXICANT
<b>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE</b>	MAY CAUSE RESPIRATORY IRRITATION. CLASSIFIED ACCORDING TO REGULATION (EU) 1272/2008, ANNEX VI (TABLE 3.1/3.2)
<b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b>	CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.
<b>ASPIRATION HAZARD</b>	NO DATA AVAILABLE
<b>ADDITIONAL INFORMATION</b>	RTECS: NOT AVAILABLE TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED. STOMACH - IRREGULARITIES - BASED ON HUMAN EVIDENCE

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## SECTION 12. ECOLOGICAL INFORMATION

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<b>TOXICITY</b>	
TOXICITY TO FISH	LC50 - ONCORHYNCHUS MYKISS (RAINBOW TROUT) - 5.2 MG/L - 96.0 H
TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES	LC50 - DAPHNIA MAGNA (WATER FLEA) - 1.52 MG/L - 48 H
<b>PERSISTENCE AND DEGRADABILITY</b>	NO DATA AVAILABLE
<b>BIOACCUMULATIVE POTENTIAL</b>	NO DATA AVAILABLE
<b>MOBILITY IN SOIL</b>	NO DATA AVAILABLE
<b>RESULTS OF PBT AND VPVB ASSESSMENT</b>	PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED

**OTHER ADVERSE EFFECTS** TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.  
AN ENVIRONMENTAL HAZARD CANNOT BE EXCLUDED IN THE EVENT OF UNPROFESSIONAL HANDLING OR DISPOSAL.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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**WASTE TREATMENT METHODS**

**PRODUCT** 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.

**CONTAMINATED PACKAGING** DISPOSE OF AS UNUSED PRODUCT.

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**SECTION 14. TRANSPORT INFORMATION**

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**DOT (US)**

PROPER SHIPPING NAME: VANADIUM PENTOXIDE  
UN NUMBER: 2862  
CLASS: 6.1  
PACKING GROUP: III  
REPORTABLE QUANTITY (RQ): 1000 LBS  
POISON INHALATION HAZARD: NO

**IMDG**

PROPER SHIPPING NAME: VANADIUM PENTOXIDE  
UN NUMBER: 2862  
CLASS: 6.1  
PACKING GROUP: III  
EMS-NO: F-A, S-A  
MARINE POLLUTANT: YES

**IATA**

PROPER SHIPPING NAME: VANADIUM PENTOXIDE  
UN NUMBER: 2862  
CLASS: 6.1  
PACKING GROUP: III

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**SECTION 15. REGULATORY INFORMATION**

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**SARA 302 COMPONENTS** THE FOLLOWING COMPONENTS ARE SUBJECT TO REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 302:

	CAS-NO.	REVISION DATE
Vanadium(V) oxide	1314-62-1	7/1/2007

**SARA 313 COMPONENTS** THE FOLLOWING COMPONENTS ARE SUBJECT TO REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313:

	CAS-NO.	REVISION DATE
Vanadium(V) oxide	1314-62-1	7/1/2007

**SARA 311/312 HAZARDS** ACUTE HEALTH HAZARD, CHRONIC HEALTH HAZARD

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
Vanadium(V) oxide	1314-62-1	7/1/2007

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
Vanadium(V) oxide	1314-62-1	7/1/2007

**NEW JERSEY RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
Vanadium(V) oxide	1314-62-1	7/1/2007

**CALIFORNIA PROP. 65 COMPONENTS** WARNING! THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

	CAS-NO.	REVISION DATE
Vanadium(V) oxide	1314-62-1	9/28/2007

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**SECTION 16. OTHER INFORMATION**

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**FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.**

ACUTE TOX.	ACUTE TOXICITY
AQUATIC ACUTE	ACUTE AQUATIC TOXICITY
AQUATIC CHRONIC	CHRONIC AQUATIC TOXICITY
EYE DAM.	SERIOUS EYE DAMAGE
H302	HARMFUL IF SWALLOWED.
H302 + H332	HARMFUL IF SWALLOWED OR IF INHALED
H318	CAUSES SERIOUS EYE DAMAGE.
H332	HARMFUL IF INHALED.
H335	MAY CAUSE RESPIRATORY IRRITATION.
H341	SUSPECTED OF CAUSING GENETIC DEFECTS.

H361	SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.
H372	CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.
H401	TOXIC TO AQUATIC LIFE.

**HMIS RATING**

HEALTH HAZARD:	4
CHRONIC HEALTH HAZARD:	*
FLAMMABILITY:	0
PHYSICAL HAZARD	0

**NFPA RATING**

HEALTH HAZARD:	3
FIRE HAZARD:	0
REACTIVITY HAZARD:	0

**MSDS LEGEND**

MW:	MOLECULAR WEIGHT
MF:	MOLECULAR FORMULA
VOC:	VOLATILE ORGANIC COMPOUNDS
ACGIH:	AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGINISTS
CAS:	CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER
OSHA:	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PEL:	PERMISSIBLE EXPOSURE LIMIT (OSHA)
TLV:	THRESHOLD LIMIT VALUE (ACGIH)

**IMPORTANT:**

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