

Section 1. Product and Company Identification

Product Name Vanadyl Sulfate
CAS Number 27774-13-6

Parchem - fine & specialty chemicals
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New Rochelle, NY 10801
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EMERGENCY RESPONSE NUMBER
CHEMTEL
Toll Free US & Canada: 1 (800) 255-3924
All other Origins: 1 (813) 248-0585
Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture

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

Acute oral toxicity: Category 4
Skin Corrosion/irritation: Category 2
Serious Eye Damage/Eye Irritation: Category 2
Specific target organ toxicity (single exposure): Category 3
Target Organs - Respiratory system

GHS Label Elements

Pictograms:



Signal word: WARNING

Hazard and precautionary statements

Hazard Statements

Harmful if swallowed
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation

Precautionary Statements

Prevention

Wash face, hands, and any exposed skin thoroughly after handling
Do not eat, drink, or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection



Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

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

Skin

IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse

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

Common Name Vanadyl Sulfate
Synonym(s) Vanadium Oxide Sulfate; Vanadium, Oxo[sulfato(2-)-O]-; Oxosulfato-Vanadium
Formula $VOSO_4$
CAS Number 27774-13-6

COMPONENT	CAS NUMBER	CONCENTRATION
Vanadyl Sulfate	27774-13-6	100.0% wt.

Section 4. First Aid Measures

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin Contact: Wash off immediately with plenty of water for at least 15 minutes.

Inhalation: Move to fresh air.

Ingestion: Do not induce vomiting.

Most important symptoms/effects: No information available.

Notes to Physician: Treat symptomatically

Section 5. Firefighting Measures

Unsuitable Extinguishing Media: No information available

Flash Point: No information available

Autoignition Temperature: No information available

Explosion Limits

Upper: No data available

Lower: No data available

Sensitivity to Mechanical Impact: No information available

Sensitivity to Static Discharge: No information available

Specific Hazards Arising from the Chemical: Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products: None known

Protective Equipment and Precautions for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health: 2

Flammability: 0

Instability: 0

Physical hazards: N/A

Section 6. Accidental Release Measures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment.

Environmental Precautions: See Section 12 for additional ecological information.

Methods for Containment and Clean Up: No information available

Section 7. Handling and Storage

Handling: Ensure adequate ventilation.

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place.

Section 8. Exposure Controls / Personal Protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Vanadyl Sulfate	-	-	Ceiling: 0.05 mg/m ³

Engineering Measures: Ensure adequate ventilation, especially in confined areas



Personal Protective Equipment

Eye/face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice

Section 9. Physical and Chemical Properties

Appearance: Blue solid

Odor: Odorless

Odor Threshold: No information available

pH: No information available

Melting Point/Range: No data available

Boiling Point/Range: No information available

Flash Point: No information available

Evaporation Rate: No information available

Flammability (solid, gas): No information available

Flammability or explosive limits

Upper: No data available

Lower: No data available

Vapor Pressure: No information available

Vapor Density: No information available

Relative Density: 3.0

Solubility: Soluble in water

Partition coefficient; n-octanol/water: No data available

Autoignition Temperature: No information available

Decomposition Temperature: No information available

Viscosity: No information available

Molecular Weight: 162.9985

Section 10. Stability and Reactivity

Reactive Hazard: None known, based on information available

Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible products.

Incompatible Materials: Strong oxidizing agents

Hazardous Decomposition Products: None under normal use conditions

Hazardous Polymerization: Hazardous polymerization does not occur.

Hazardous Reactions: None under normal processing

Section 11. Toxicological Information

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Vanadyl sulfate	Not listed	4450 mg/kg (Rabbit)	Not listed

Toxicologically Synergistic Products: No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation: No information available

Sensitization: No information available

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Vanadyl sulfate	27774-13-6	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects: No information available

Reproductive Effects: No information available.

Developmental Effects: No information available

Teratogenicity: No information available.

STOT - single exposure: Respiratory system

STOT - repeated exposure: None known

Aspiration hazard: No information available

Symptoms/effects, both acute and delayed: No information available

Endocrine Disruptor Information: No information available

Other Adverse Effects: The toxicological properties have not been fully investigated.

Section 12. Ecological Information

Ecotoxicity: Do not empty into drains.

Persistence and Degradability: No information available

Bioaccumulation/Accumulation: No information available.

Mobility: No information available



Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT

UN-No: UN2931

Proper Shipping Name: Vanadyl Sulfate

Hazard Class: 6.1

Packing Group: II

TDG

UN-No: UN2931

Proper Shipping Name: Vanadyl Sulfate

Hazard Class: 6.1

Packing Group: II

IATA

UN-No: UN2931

Proper Shipping Name: Vanadyl Sulfate

Hazard Class: 6.1

Packing Group: II

IMDG/IMO

UN-No: UN2931

Proper Shipping Name: Vanadyl Sulfate

Hazard Class: 6.1

Packing Group: II

Section 15. Regulatory Information

International Inventories

Vanadyl sulfate

TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
X	X	-	248-652-7	-		X	X	X	X	X

U.S. Federal Regulations

TSCA 12(b): Not applicable

SARA 313

Component	CAS No.	Weight %	SARA 313 - Threshold Values %
Vanadyl sulfate	27774-13-6	100.0	1.0



SARA 311/312 Hazardous Categorization

Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire Hazard: No
Sudden Release of Pressure Hazard: No
Reactive Hazard: No

Clean Water Act

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Vanadyl sulfate	X	1000 lb	-	-

Clean Air Act: Not applicable

OSHA (Occupational Safety and Health Administration): Not applicable

CERCLA: Not applicable

Component	Hazardous Substances RQs	CERCLA EHS RQs
Vanadyl sulfate	1000 lb	-

California Proposition 65: This product does not contain any Proposition 65 chemicals

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Vanadyl sulfate	X	X	X	-	-

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant: N

DOT Severe Marine Pollutant: N

U.S. Department of Homeland Security: This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade: No information available

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class

D1B Toxic materials

D2B Toxic materials



Section 16. Other Information

Disclaimer: 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.

REVISION DATE: 1/4/2016

